# SRI BHARATHI

## ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

### Kaikkurichi, Pudukkottai -622 303

www.sbec.edu.in

## NAAC DOCUMENTS



## Quality Indicator Frame Work

# Criterion – 1
# CURRICULAR ASPECTS

Submitted by

# IQAC
## Internal Quality Assurance Cell

## Sri Bharathi Engineering College for Women

# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN
### Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25
### KAIKKURUCHI, PUDUKOTTAI – 622 303
## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

### 1.2 Academic Flexibility (30)

**1.2.1 Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)**

**AND**

**1.2.2 Percentage of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years**

| Certificate Course Title: | BUILDING SCALABLE WEB APPLICATION WITH NODE JS | | |
|---|---|---|---|
| Resource Person: | **Resource Person:** Mrs.Parveen Banu AP/CSE Sri Bharathi Engineering College For Women | **Resource Person:** Ms. EL.Thanga Uma AP/CSE . Sri Bharathi Engineering College for Women | **Resource Peron:** Ms.G.Rajalakshmi AP/CSE Sri Bharathi Engineering College for Women |
| Date of conduct from : | 03.02.2023(IV) <br> 30.01.2023(II&III) | To: 12.05.2023( IV) <br> 03.02.2023(II&III) | Duration: 30 Hrs |
| Organized Department : | COMPUTER SCIENCE AND ENGINEERING | | |
| Participant Year: | 4,3&2(CSE) | Semester: EVEN | No. of Students Registered : 71 |
| Venue: | Auditorium | | |

# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

**(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)**

**Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India**

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

**ACADEMIC YEAR 2022-2023 / EVEN SEMESTER**

Date: 24 / 1 /2023

### DEPARTMENT CIRCULAR

Certificate Course offered by the Department of CSE will be conducted for all final year CSE students on **"Building Scalable Web application using Node JS"** in our College campus. The classes will be held as per the schedule mentioned in the class time table. Certificates will be issued to all the participants at the end of the Course.

| S.No. | Name of the Course | Resource Person |
|-------|--------------------|-----------------|
| 1. | **Building Scalable Web application using Node JS** | **Resource Person 1:** Mrs.Parveen Banu    AP/CSE |

HoD/CSE

HOD / CSE
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURICHI,
PUDUKKOTTAI - 622 303

CC:

- Principal's office
- IQAC Coordinator
- Class In charges –IV Year
- CSE Students - IV Year
- Notice Board

Dr. S.THILAGAVATHI M.E.,Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
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Kaikkurchi - 622 303, Pudukkottai Dt.

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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

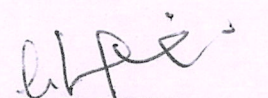ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

### Certificate Course on "Building scalable web application using Node js"

## SYLLABUS

| S.NO | TOPIC COVERED | DURATION (in hours) | DATE FN/AN |
|------|---------------|---------------------|------------|
| 1 | Introduction to web programming-Introduction to HTML | 2 | 03.02.2023 |
| 2 | HTML Basic Formatting Tags- -HTML Images- HTML | 2 | 10.02.2023 |
| 3 | Hyperlink-HTML Tables-HTML iFrame- HTML Form | 2 | 17.02.2023 |
| 4 | HTML Headers-HTML Miscellaneous. | 2 | 24.02.2023 |
| 5 | Getting Started with Angular - Angular Development Environment Setup | 2 | 03.03.2023 |
| 6 | Creating Components and Modules - Templates – Directives | 2 | 10.03.2023 |
| 7 | Data Binding – Pipes - Nested Components – Forms - Services – Routing | 2 | 17.03.2023 |
| 8 | Node.js: Why and What Node.js - How to use Node.js - Create a web server in Node.js -Node Package Manager | 2 | 24.03.2023 |
| 9 | Modular programming in Node.js - Restarting Node Application - File Operations | 2 | 31.03.2023 |
| 10 | Express Development Environment - defining a route - Handling Routes - Route and Query Parameters - How Middleware works | 2 | 15.04.2023 |
| 11 | Chaining of Middleware's - Types of Middleware's - connecting to MongoDB with Mongoose - | 2 | 21.04.2023 |
| 12 | Validation Types and Defaults – Models | 2 | 28.04.2023 |
| 13 | MongoDB: Introduction Module Overview- Document Database Overview- Understanding JSON | 2 | 29.04.2023 |
| 14 | MongoDB Structure and Architecture- MongoDB Remote Management- | 2 | 05.05.2023 |
| 15 | Installing MongoDB on the local computer (Mac or Windows) | 2 | 12.05.2023 |
| | **Total Hours :** | **30** | |

CC Coordinator

HoD / CSE

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**Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India**

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

**Cerificate course on "Building scalable web application using Node js"**

### STUDENTS PARTICIPATION LIST- CC PROGRAM

| S.NO | REG.NO | NAME OF THE STUDENT | YEAR/BRANCH |
|------|--------|---------------------|-------------|
| 1. | 912619104001 | ANNAPOORANI M | IV / CSE |
| 2. | 912619104003 | ARUNNAVAMEENA A | IV / CSE |
| 3. | 912619104004 | DAYANA P | IV / CSE |
| 4. | 912619104005 | DHARSHINI D | IV / CSE |
| 5. | 912619104007 | FAHMIDHA B | IV / CSE |
| 6. | 912619104009 | GULNAS FATHIMA S | IV / CSE |
| 7. | 912619104010 | HELAN J | IV / CSE |
| 8. | 912619104011 | KEERTHANA R | IV / CSE |
| 9. | 912619104012 | MUTHULAKSHMI G | IV / CSE |
| 10. | 912619104013 | MUTHU MEENAKSHI M | IV / CSE |
| 11. | 912619104014 | NIROSHIKA R | IV / CSE |
| 12. | 912619104017 | PARAMESHWARI S | IV / CSE |
| 13. | 912619104019 | RANJANI K | IV / CSE |
| 14. | 912619104020 | RILWANA PARVEEN J | IV / CSE |
| 15. | 912619104021 | ROOPINA R | IV / CSE |
| 16. | 912619104022 | SANDHIYA B | IV / CSE |
| 17. | 912619104023 | SANTHI D | IV / CSE |
| 18. | 912619104024 | SARANYA C | IV / CSE |

Dr. S.THILAGAVATHI M.E.,Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurichi - 622 303, Pudukkottai DA

| 19. | 912619104027 | SNEHA R | IV / CSE |
| 20. | 912619104029 | SURIYA JOTHI S | IV / CSE |
| 21. | 912619104301 | ABINAYA S | IV / CSE |

**CC Coordinator**

**HoD / CSE**

HOD / CSE
SRI BHARATHI ENGINEERING
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KAIKKURICHI,
PUDUKKOTTAI - 622 303

Dr. S.THILAGAVATHI M.E.,Ph.D.
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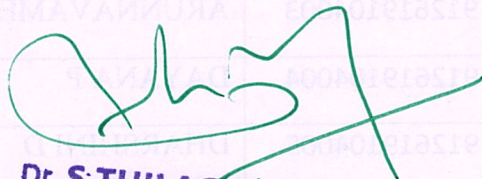
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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

### Certificate Course on "Building scalable web application using Node js"

| S.NO | REG.NO | NAME OF THE STUDENT | YEAR/ BRANCH | 3.2.23 | 10.2.23 | 17.2.23 | 24.2.23 | 3.3.23 | 10.3.23 | 17.3.23 | 24.3.23 | 31.3.23 | NO OF HRS ATTENDED | SIGNATURE OF THE STUDENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2 hrs | 2 hrs | 2 hrs | 2 hrs | 2 hrs | 2 hrs | 2 hrs | 2 hrs | 2 hrs | | |
| 1 | 912619104001 | ANNAPOORANI M | IV / CSE | / | / | / | / | / | / | / | / | / | 18 | Aauf |
| 2 | 912619104003 | ARUNNAVAMEENA A | IV / CSE | / | / | / | / | / | / | / | / | / | 18 | Arnyej |
| 3 | 912619104004 | DAYANA P | IV / CSE | / | / | / | / | / | / | / | / | / | 18 | Dayay |
| 4 | 912619104005 | DHARSHINI D | IV / CSE | / | / | / | / | / | / | / | / | / | 18 | Ouy. |
| 5 | 912619104007 | FAHMIDHA B | IV / CSE | / | / | / | a | / | a | / | / | a | 12 | B- Rahya |
| 6 | 912619104009 | GULNAS FATHIMA S | IV / CSE | / | / | / | / | / | / | / | / | / | 18 | Cuy |
| 7 | 912619104010 | HELAN J | IV / CSE | / | / | / | / | / | / | / | / | / | 18 | Helln |
| 8 | 912619104011 | KEERTHANA R | IV / CSE | / | / | / | / | / | / | / | / | / | 18 | Keyn |

| 9 | 912619104012 | MUTHULAKSHMI G | IV / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 18 | Mky |
| 10 | 912619104013 | MUTHU MEENAKSHI M | IV / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 18 | Muhi |
| 11 | 912619104014 | NIROSHIKA R | IV / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 18 | Qeyu |
| 12 | 912619104017 | PARAMESHWARI S | IV / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 18 | S. Param |
| 13 | 912619104019 | RANJANI K | IV / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 18 | k.Rey. |
| 14 | 912619104020 | RILWANA PARVEEN J | IV / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 18 | Arey |
| 15 | 912619104021 | ROOPINA R | IV / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 18 | Reyin |
| 16 | 912619104022 | SANDHIYA B | IV / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 18 | S |
| 17 | 912619104023 | SANTHI D | IV / CSE | a | ✓ | ✓ | ✓ | a | ✓ | ✓ | ✓ | a | 12 | Deuh- |
| 18 | 912619104024 | SARANYA C | IV / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 18 | Snh- |
| 19 | 912619104027 | SNEHA R | IV / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 18 | Anh. |
| 20 | 912619104029 | SURIYA JOTHI S | IV / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 18 | Swm |
| 21 | 912619104301 | ABINAYA S | IV / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 18 | S Abuya |
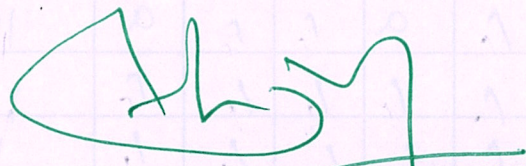
# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
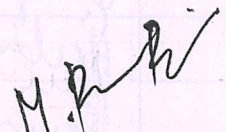
### ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate Course on "Building scalable web application using Node js"
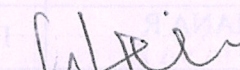
| S.NO | REG.NO | NAME OF THE STUDENT | YEAR/ BRANCH | 15.4.23 | 21.4.23 | 28.4.23 | 29.4.23 | 5.05.23 | 12.5.23 | NO OF SESSION ATTENDED | SIGNATURE OF THE STUDENT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2 hrs | 2 hrs | 2 hrs | 2 hrs | 2 hrs | 2 hrs | | |
| 1 | 912619104001 | ANNAPOORANI M | IV / CSE | / | / | / | / | / | / | 12 | Aau |
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| 3 | 912619104004 | DAYANA P | IV / CSE | / | | / | / | / | / | 12 | Dayay |
| 4 | 912619104005 | DHARSHINI D | IV / CSE | / | / | / | / | / | / | 12 | Ony |
| 5 | 912619104007 | FAHMIDHA B | IV / CSE | / | | / | / | / | / | 12 | B'Rahya |
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| 7 | 912619104010 | HELAN J | IV / CSE | / | / | / | / | / | / | 12 | Helin |
| 8 | 912619104011 | KEERTHANA R | IV / CSE | / | / | / | / | / | / | 12 | Keyn |

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| 11 | 912619104014 | NIROSHIKA R | IV / CSE | / | ) | | ) | ) | / | / | 12 | Roy |
| 12 | 912619104017 | PARAMESHWARI S | IV / CSE | | | | | / | / | 12 | S. Param |
| 13 | 912619104019 | RANJANI K | IV / CSE | / | / | | / | / | / | / | 12 | K Ray |
| 14 | 912619104020 | RILWANA PARVEEN J | IV / CSE | / | ) | | / | / | / | / | 12 | Akys |
| 15 | 912619104021 | ROOPINA R | IV / CSE | / | | / | / | / | / | / | 12 | Roy |
| 16 | 912619104022 | SANDHIYA B | IV / CSE | | | | / | / | / | / | 12 | |
| 17 | 912619104023 | SANTHI D | IV / CSE | \ | | | / | / | / | / | 12 | Deng |
| 18 | 912619104024 | SARANYA C | IV / CSE | / | / | | / | / | /. | / | 12 | Deng. |
| 19 | 912619104027 | SNEHA R | IV / CSE | / | / | | / | / | / | / | 12 | Sneh. |
| 20 | 912619104029 | SURIYA JOTHI S | IV / CSE | / | / | / | / | / | / | / | 12 | Shib. |
| 21 | 912619104301 | ABINAYA S | IV / CSE | / | / | / | / | / | / | / | 12. | Swin. S. Abiny |

CC Coordinator

Dr. S.THILAGAVATHI M.E.,Ph.D.,
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SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.

HoD / CSE

# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN
### (Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)
### Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

## Report on Certificate Course

| | |
|---|---|
| **Title:** | **Building scalable web application using Node js''** |

| | |
|---|---|
| Resource Person: | **Resource Person :**<br>Mrs.Parveen Banu<br>AP/CSE |

| Date of conduct from : | **03.02.2023** | To: | **12.05.2023** | Duration: | **30 Hours** |
|---|---|---|---|---|---|
| Organized Department : | **COMPUTER SCIENCE AND ENGINEERING** | | | | |

| Participant Year: | **4 (CSE)** | Semester: | **EVEN** | No. of Students Registered : | **21** |
|---|---|---|---|---|---|

| Venue: | **Lecture Hall 65** |
|---|---|

### Outcome of Certificate Course (CC)

**At the end of the CC course the student can able to**
- Develop algorithmic solutions to simple computational problems.
- Develop and execute simple Full stack framework.
- Write simple Python programs using conditionals and loops for solving problems.
- Decompose a Python program into functions.
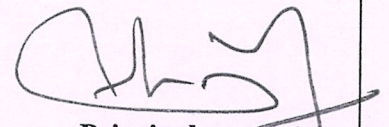
### Assessment Process

- Students securing **more than 60% on total score** and secured more than 75% in attendance is eligible to receive the certificate for the CC course conducted
- Total Score = (0.5 *Attendance in CC out of 100 percentage + 0.5 *Test mark in CC out of 100 marks)

CC Coordinator

HoD / CSE

Principal

HOD / CSE
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURICHI,
PUDUKKOTTAI - 622 303

PRINCIPAL
SRI BHARATHI ENGINEERING
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KAIKKURICHI - 622 303.
PUDUKKOTTAI DISTRICT

Dr. S.THILAGAVATHI M.E., Ph.D.,
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Kaikkurchi - 622 303, Pudukkottai Dt.

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## ENGINEERING COLLEGE FOR WOMEN

Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

# Certificate of Completion

This certificate is awarded to **Ms.R.ROOPINA** of **IV CSE** in recognition of their successful completion  o f

certificate course on   **BUILDING SCALABLE WEB APPLICATION USING NODE JS** during

the  academic  year  2022-2023  even semester.

**Course Coordinator**                 **HoD / CSE**                 **Principal**

Dr. S.THILAGAVATHI M.E.,Ph.D.,
PRINCIPAL
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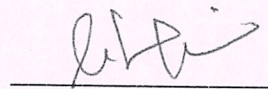
# Certificate of Completion
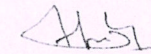
This certificate is awarded to **Ms.S.ABINAYA** of **IV CSE** in recognition of their successful completion of

certificate course on **BUILDING SCALABLE WEB APPLICATION USING NODE JS** during

the academic year 2022-2023 even semester.

**Course Coordinator**

**HoD / CSE**

**Principal**

Dr. S.THILAGAVATHI M.E.,Ph.D.,
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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

# Certificate of Completion

This certificate is awarded to **Ms.D.SANTHI** of **IV CSE** in recognition of their successful completion  o f

certificate course on  **BUILDING SCALABLE WEB APPLICATION USING NODE JS** during

the academic year 2022-2023 even semester.

Course Coordinator                HoD / CSE                Principal
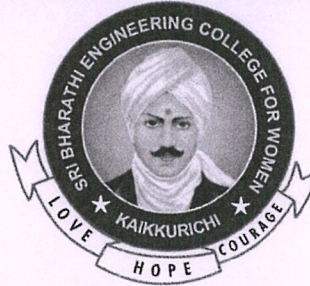
Dr. S.THILAGAVATHI M.E.,Ph.D.,
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COLLEGE FOR WOMEN
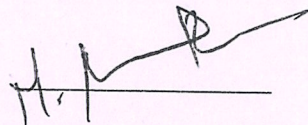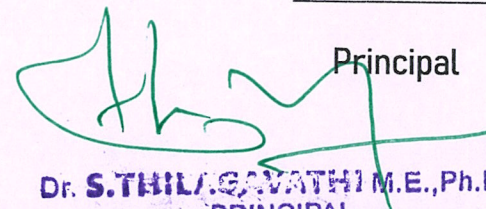Kaikkurchi - 622 303, Pudukkottai Dt.

# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

**Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India**

**(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)**

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate Course on "Building Scalable Web application using Node JS"

Name of the Student :                                        Year/Sem:

AU Register Number:

## MCQ QUESTIONS ( 25X1 = 25 Marks)

1. Node.js is written in

    A. JavaScript                                  B. C

    C. C++                                      D. All of the above

2. Which of the following statement is correct?

    A. js is Server Side Language.                    B. js is the Client Side Language.

    C. js is both Server Side and Client Side Language.    D. None of the above

3. What does the REPL stand for?

    A. REPL stands for "Read Eval Print Loop."    B. REPL stands for "Research Eval Program Learn."

    C. REPL stands for "Read Earn Point Learn."    D. REPL stands for "Read Eval Point Loop."

4. How modules in Node.js can be connected from one component to another ?

    A.Expose                                 B.Module

    C.Exports                                D.All of the above

5. Which of the below modules is not a built-in module in Node.js ?

    **A.zlib**                                 B.HTTPS

    C.dgram                                 D.fsread

6 Which of the below command will show all the modules installed locally ?

    A. npm ls –g                             B .npm ls

    C .node ls –g                             D .node ls

**7. Which of the below fs module is used to truncate a file ?**

    A. fs.delete(fd, len, callback)        B.fs.remove(fd, len, callback)

    C.fs.ftruncate(fd, len, callback)    D.None of the above.

**8. How do we return a path string from the given path object in Node.js ?**

    A.path.get()                 B.path.set()

    C.path.format()            D.path.return()

**9. What is the default scope in the Node.js application ?**

    A.Global                  B.Local

    C.Global Function        D.Local to object

**10. Which of the below method is used to return the current working directory of the process ?**

    A.cwd();                B .cmd();

    C.pwd();               D .None of the above

**11. What does the fs module stand for?**

    A.FileStore              B .FileService

    C.File System          D .None of the above

**12. Which of the below options is correct about package.json in the node.js application?**

    A.It is present in the root directory of any Node application.

    B.It is used to define the properties of a package.

    C.It is used to update the dependencies of an application.

    D.All of the above.

**13. Which of the below is the correct syntax for installing the Nodemon in the Node.js application ?**

    A. npm install -g nodemon        B. node install -g nodemon

    C. node install node             D. node install -l nodemon

**14. Which of the following command is used to start a REPL session?**

    A.$ node                B.$ node start

    C.$ node repl             D.$ node console

**15. In which language is Node.js written?**

    A. JavaScript            B. C

    C. C++                D. CoffeeScript

E. All of the above

**16 Which of the following command is used to install the Node.js express module?**

A.$ npm install express

B.$ node install express

C.$ install express

D. None of the above

**17. What is Callback?**

A. The callback is a technique in which a method calls back the caller method.

B. The callback is an asynchronous equivalent for a function.

C. Both of the above.

D. None of the above.

**18. Which of the following extension is used to save the Node.js files?**

A. .js

B. .node

C. .java

D. .txt

**19 The Node.js modules can be exposed using:**

A.expose

B.module

C.exports

D. All of the above

**20. Which of the following module is not a built-in node module?**

A. zlib

B. https

C. dgram

D. fsread

**21. Which node module is used to handle binary data?**

A. binary

B. buffer

C. Cyrpto

D. dgram

**22. How many node objects methods are available?**

A. 21

B. 18

C. 19

D. 20

**23.** Which of the following operations can we do with the NodeJS events module?

    A. Create                                 B. Listen for

    C. Fire                                    D. All of the above

**24.** Which of the following is a valid HTTP method?

    A. get                                   B. put

    C. post                                  D. All of the above

**25.** Which of the following NodeJS modules is used for file uploads?

    A. formidable                          B. fs

    C. express                            D. files

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CC Coordinator

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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

### Certificate course on "Building scalable web application using Node js"

### ANSWER KEY

| 1 | d | 6 | b | 11 | c | 16 | a | 21 | b |
|---|---|---|---|----|---|----|---|----|---|
| 2 | a | 7 | c | 12 | d | 17 | b | 22 | b |
| 3 | a | 8 | c | 13 | a | 18 | a | 23 | d |
| 4 | c | 9 | b | 14 | a | 19 | c | 24 | d |
| 5 | d | 10 | a | 15 | c | 20 | d | 25 | b |

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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate course on "Building scalable web application using Node js"

Name of the Student : D. Dhaashini          Year/Sem: IV / 08

AU Register Number: 912619104005

24/25

## MCQ QUESTIONS ( 25X1 = 25 Marks)

1. Node.js is written in

a) JavaScript                          c) C++
b) C                                   d) All of the above

2. Which of the following statement is correct?

a) js is Server Side Language          c) js is both Server Side and Client Side
                                       Language
b) js is the Client Side Language      d) None of the above

3. What does the REPL stand for?

a) REPL stands for "Read Eval Print Loop          c) REPL stands for "Read Earn Point Learn."
b) REPL stands for "Research Eval Program         d)REPL stands for "Read Eval Point Loop."
Learn."

4. How modules in Node.js can be connected from one component to another ?

a)Expose                               c)Exports
b) Module                              d) All of the above

5. Which of the below modules is not a built-in module in Node.js ?

a) zlib                                c) dgram
b) HTTPS                               d) fsread

6 Which of the below command will show all the modules installed locally ?

a)npm ls –g                            c) node ls –g
b) npm ls                              d) node ls

7. Which of the below fs module is used to truncate a file ?

a) fs.delete(fd, len, callback)        c) fs.ftruncate(fd, len, callback)
b) fs.remove(fd, len, callback)        d) None of the above.

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8. How do we return a path string from the given path object in Node.js ?

a) path.get()
b) path.set()
c) path.format()
d) path.return()

9. What is the default scope in the Node.js application ?

a) Global
b) Local
c) Global Function
d) Local to object

10. Which of the below method is used to return the current working directory of the process ?

a) cwd();
b) cmd();
c) pwd();
d) None of the above

11. What does the fs module stand for?

a) FileStore
b) FileService
c) File System
d) None of the above

12. Which of the below options is correct about package.json in the node.js application?

a) It is present in the root directory of any Node application.
b) It is used to define the properties of a package.
c) It is used to update the dependencies of an application.
d) All of the above.

13. Which of the below is the correct syntax for installing the Nodemon in the Node.js application ?

a) npm install -g nodemon
b) node install -g nodemon
c) node install node
d) node install -l nodemon

14. Which of the following command is used to start a REPL session?

a) $ node
b) $ node start
c) $ node repl
d) $ node console

15. In which language is Node.js written?

a) JavaScript
b) C
c) C++
d) CoffeeScript

16. Which of the following command is used to install the Node.js express module?

a) $ npm install express
b) $ node install express
c) $ install express
d) None of the above

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19 The Node.js modules can be exposed using:
   a) expose
   b) module
   c) exports
   d) All of the above

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22. How many node objects methods are available?
   a) 21
   b) 18
   c) 19
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   b) Listen for
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   b) put
   c) post
   d) All of the above

25. Which of the following NodeJS modules is used for file uploads?
   a) formidable
   b) . fs
   c) express
   d) files

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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
### ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

## Certificate course on "Building scalable web application using Node js"

| S.NO | REG.NO | NAME OF THE STUDENT | YEAR/ BRANCH | ATTENDANCE DETAILS | | VAC-MCQ TEST | | OVERALL MARK(100) (50% of A + 50% of B) |
|------|--------|---------------------|--------------|--------------------|--|--------------|--|--|
| | | | | No of HRS Attended | Attendance Mark(100) (A) | No of Correct Answers | MCQ Mark(100) (B) | |
| 1 | 912619104001 | ANNAPOORANI M | IV / CSE | 30 | 100 | 24 | 96 | 98 |
| 2 | 912619104003 | ARUNNAVAMEENA A | IV / CSE | 30 | 100 | 23 | 92 | 96 |
| 3 | 912619104004 | DAYANA P | IV / CSE | 30 | 100 | 22 | 88 | 94 |
| 4 | 912619104005 | DHARSHINI D | IV / CSE | 30 | 100 | 24 | 96 | 98 |
| 5 | 912619104007 | FAHMIDHA B | IV / CSE | 24 | 80 | 20 | 80 | 80 |
| 6 | 912619104009 | GULNAS FATHIMA S | IV / CSE | 30 | 100 | 23 | 92 | 96 |

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| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 7 | 912619104010 | HELAN J | IV / CSE | 30 | 100 | 21 | 84 | 92 |
| 8 | 912619104011 | KEERTHANA R | IV / CSE | 30 | 100 | 22 | 88 | 94 |
| 9 | 912619104012 | MUTHULAKSHMI G | IV / CSE | 30 | 100 | 24 | 96 | 98 |
| 10 | 912619104013 | MUTHU MEENAKSHI M | IV / CSE | 30 | 100 | 23 | 92 | 96 |
| 11 | 912619104014 | NIROSHIKA R | IV / CSE | 30 | 100 | 25 | 100 | 100 |
| 12 | 912619104017 | PARAMESHWARI S | IV / CSE | 30 | 100 | 22 | 88 | 94 |
| 13 | 912619104019 | RANJANI K | IV / CSE | 30 | 100 | 23 | 92 | 96 |
| 14 | 912619104020 | RILWANA PARVEEN J | IV / CSE | 30 | 100 | 20 | 80 | 90 |
| 15 | 912619104021 | ROOPINA R | IV / CSE | 30 | 100 | 20 | 80 | 90 |
| 16 | 912619104022 | SANDHIYA B | IV / CSE | 30 | 100 | 21 | 84 | 92 |
| 17 | 912619104023 | SANTHI D | IV / CSE | 24 | 80 | 22 | 88 | 84 |
| 18 | 912619104024 | SARANYA C | IV / CSE | 30 | 100 | 23 | 92 | 96 |
| 19 | 912619104027 | SNEHA R | IV / CSE | 30 | 100 | 24 | 96 | 98 |
| 20 | 912619104029 | SURIYA JOTHI S | IV / CSE | 30 | 100 | 22 | 88 | 94 |

| 21 | 912619104301 | ABINAYA S | IV / CSE | 30 | 100 | 25 | 100 | 100 |
|----|--------------|-----------|----------|-----|-----|-----|-----|-----|
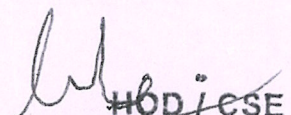
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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Date: 24 / 01 /2023

### DEPARTMENT CIRCULAR

Certificate Course offered by the Department of CSE will be conducted for all Second year and Third year CSE students on **"Building Scalable Web application using Node JS"** from 30.01.2023 to 03.02.2023 . Certificates will be issued to all the participants at the end of the Course.

| S.No. | Name of the Course | Resource Person |
|-------|--------------------|-----------------|
| 1. | **Building Scalable Web application using Node JS** | **Resource Person 1:**<br> Ms. EL.Thanga Uma  AP / CSE<br>**Resource Peron 2:**<br> Ms.G.Rajalakshmi AP/CSE |

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PUDUKKOTTAI - 622 303

CC:

- Principal's office
- IQAC Coordinator
- Class In charges – II, III Year
- CSE Students - II, III Year
- Notice Board

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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate Course on "Building Scalable web applications using Node js"

## SYLLABUS

| S.NO | TOPIC COVERED | DURATION (in hours) | DATE FN/AN | Resource Person |
|------|---------------|---------------------|------------|-----------------|
| 1 | Introduction to web programming-Introduction to HTML-HTML Basic Formatting Tags- -HTML Images-HTML | 3 | 30.01.2023 | EL.Thanga Uma |
| 2 | Hyperlink-HTML Tables-HTML iFrame-HTML Form-HTML Headers-HTML Miscellaneous. | 3 | 30.01.2023 | G.Rajalakshmi |
| 3 | Getting Started with Angular - Angular Development Environment Setup - Creating Components and Modules | 3 | 31.01.2023 | EL.Thanga Uma |
| 4 | Templates – Directives - Data Binding – Pipes - Nested Components – Forms -Services – Routing | 3 | 31.01.2023 | G.Rajalakshmi |
| 5 | Node.js: Why and What Node.js - How to use Node.js - Create a web server in Node.js - Node Package Manager | 3 | 01.02.2023 | EL.Thanga Uma |
| 6 | Modular programming in Node.js - Restarting Node Application - File Operations | 3 | 01.02.2023 | G.Rajalakshmi |
| 7 | Express Development Environment - defining a route - Handling Routes - Route and Query Parameters - How Middleware works | 3 | 02.02.2023 | EL.Thanga Uma |
| 8 | Chaining of Middleware's - Types of Middleware's - connecting to MongoDB with Mongoose - Validation Types and Defaults – Models | 3 | 02.02.2023 | G.Rajalakshmi |
| 9 | MongoDB: Introduction Module Overview-Document Database Overview- Understanding JSON | 3 | 03.02.2023 | EL.Thanga Uma |
| 10 | MongoDB Structure and Architecture- MongoDB Remote Management- Installing MongoDB on the local computer (Mac or Windows) | 3 | 03.02.2023 | G.Rajalakshmi |
| | **Total Hours :** | **30** | | |

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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate Course on "Building scalable web application using Node js"

## STUDENT PARTICIPATION LIST-CC PROGRAM

| S.NO | REG.NO | NAME OF THE STUDENT | YEAR/BRANCH |
|------|--------|---------------------|-------------|
| 1 | 912620104001 | AKALYA S | III / CSE |
| 2 | 912620104002 | HEMA V | III / CSE |
| 3 | 912620104004 | KALAIVANI S | III / CSE |
| 4 | 912620104005 | KALPANA K | III / CSE |
| 5 | 912620104007 | MEIYYAMMAL M | III / CSE |
| 6 | 912620104008 | NANDHINI P | III / CSE |
| 7 | 912620104009 | PRASANNA DEVI P | III / CSE |
| 8 | 912620104010 | PRISHIYA E | III / CSE |
| 9 | 912620104012 | ROSAMMAL M | III / CSE |
| 10 | 912620104013 | ROSHIKA K | III / CSE |
| 11 | 912620104014 | SABHA AYSHA S | III / CSE |
| 12 | 912620104015 | SATHIYASRI P | III / CSE |
| 13 | 912620104016 | SIVAGAMI D | III / CSE |
| 14 | 912620104017 | SIVAHARINI S | III / CSE |
| 15 | 912620104018 | SUBASHINI C | III / CSE |
| 16 | 912620104019 | SUBASHINI M | III / CSE |
| 17 | 912620104020 | SWETHA D | III / CSE |
| 18 | 912620104021 | VANATHI T | III / CSE |
| 19 | 912620104022 | VINCIYA MARY S | III / CSE |
| 20 | 912620104304 | VAISHNAVI R | III / CSE |

| 21 | 912621104001 | ABINAYA K | II / CSE |
|----|--------------|-----------|----------|
| 22 | 912621104002 | AMEERA N | II / CSE |
| 23 | 912621104003 | ANJUGAM C | II / CSE |
| 24 | 912621104004 | ARUNDATHI S | II / CSE |
| 25 | 912621104005 | ASHIKA B | II / CSE |
| 26 | 912621104006 | DIVYA T | II / CSE |
| 27 | 912621104007 | ELACKIYA G | II / CSE |
| 28 | 912621104008 | GAYATHRI K | II / CSE |
| 29 | 912621104009 | GEETHA M | II / CSE |
| 30 | 912621104010 | HARSHITHA P | II / CSE |
| 31 | 912621104011 | ISHWARYA S | II / CSE |
| 32 | 912621104012 | JANANI R | II / CSE |
| 33 | 912621104015 | LAVANYA S | II / CSE |
| 34 | 912621104016 | MAHASREE P | II / CSE |
| 35 | 912621104018 | PRIYA M | II / CSE |
| 36 | 912621104019 | RABIKA R | II / CSE |
| 37 | 912621104021 | SAHEENA BEGAM A | II / CSE |
| 38 | 912621104022 | SASIPRIYA R | II / CSE |
| 39 | 912621104023 | SHAMIMA P | II / CSE |
| 40 | 912621104024 | SHEERA BANU A | II / CSE |
| 41 | 912621104025 | SIVAJOTHIKA S | II / CSE |
| 42 | 912621104026 | SIVAPRIYA R | II / CSE |
| 43 | 912621104027 | SUBHA DHARSHINI S | II / CSE |
| 44 | 912621104028 | SUBIKSHA S | II / CSE |
| 45 | 912621104029 | VINITHA K | II / CSE |
| 46 | 912621104030 | VISALATCHI S | II / CSE |
| 47 | 912621104301 | VAISHNAVI .B | II / CSE |

| 48 | 912621104302 | VISHNU PRIYA. A | II / CSE |
|----|--------------|-----------------|----------|
| 49 | 912621104701 | AARTHI. S | II / CSE |
| 50 | 912621104702 | SWATHI. A.R | II / CSE |

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**HoD / CSE**

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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

Certificate course on "Building Scalable web application using Node js"

| S.NO | REG.NO | NAME OF THE STUDENT | YEAR/ BRANCH | DATE 30.01.23 FN | AN | DATE 31.01.23 FN | AN | DATE 01.02.23 FN | AN | DATE 02.02.23 FN | AN | DATE 03.02.23 FN | AN | NO OF SESSIONS ATTENDED | SIGNATURE OF THE STUDENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 912620104001 | AKALYA S | III / CSE | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 | S. Akalya |
| 2 | 912620104002 | HEMA V | III / CSE | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 | Hru |
| 3 | 912620104004 | KALAIVANI S | III / CSE | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 | isaivani |
| 4 | 912620104005 | KALPANA K | III / CSE | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 | kalpana |
| 5 | 912620104007 | MEIYYAMMAL M | III / CSE | 1 | 1 | a | a | 1 | 1 | 1 | 1 | 1 | 1 | 08 | M.dravy |
| 6 | 912620104008 | NANDHINI P | III / CSE | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 | Nvi |
| 7 | 912620104009 | PRASANNA DEVI P | III / CSE | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 | Prasand |
| 8 | 912620104010 | PRISHIYA E | III / CSE | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 | Prishiya |
| 9 | 912620104012 | ROSAMMAL M | III / CSE | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 | Rosanye |
| 10 | 912620104013 | ROSHIKA K | III / CSE | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 | Roshika |

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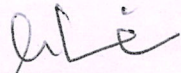| S.No | Reg No | Name | Class | | | | | | | | | | | Total | Signature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 912620104014 | SABHA AYSHA S | III / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | S.Sabha |
| 12 | 912620104015 | SATHIYASRI P | III / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Sathiy |
| 13 | 912620104016 | SIVAGAMI D | III / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Sivga |
| 14 | 912620104017 | SIVAHARINI S | III / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Sivy |
| 15 | 912620104018 | SUBASHINI C | III / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Suby |
| 16 | 912620104019 | SUBASHINI M | III / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Mani |
| 17 | 912620104020 | SWETHA D | III / CSE | aa | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 08 | Swethy |
| 18 | 912620104021 | VANATHI T | III / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | T.Vani |
| 19 | 912620104022 | VINCIYA MARY S | III / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Viny |
| 20 | 912620104304 | VAISHNAVI R | III / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Vaish |
| 21 | 912621104001 | ABINAYA K | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Abi |
| 22 | 912621104002 | AMEERA N | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Ameera |
| 23 | 912621104003 | ANJUGAM C | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Anjugam |
| 24 | 912621104004 | ARUNDATHI S | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Arundatha |
| 25 | 912621104005 | ASHIKA B | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Ashika |
| 26 | 912621104006 | DIVYA T | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Divya |
| 27 | 912621104007 | ELACKIYA G | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Elackya |
| 28 | 912621104008 | GAYATHRI K | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Gayatha |

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| No | Reg No | Name | Class | | | | | | | | | | | Total | Signature |
|----|--------|------|-------|---|---|---|---|---|---|---|---|---|---|-------|-----------|
| 29 | 912621104009 | GEETHA M | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | 10 | Geetha. |
| 30 | 912621104010 | HARSHITHA P | II / CSE | ✓ | ✓ | | | | ✓ | ✓ | ✓ | ✓ | | 10 | P.Harsh |
| 31 | 912621104011 | ISHWARYA S | II / CSE | ✓ | ✓ | | | | ✓ | ✓ | ✓ | ✓ | | 10 | S.Ishw. |
| 32 | 912621104012 | JANANI R | II / CSE | ✓ | | | | | | | ✓ | ✓ | | 10 | Janani.R |
| 33 | 912621104015 | LAVANYA S | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | 10 | S.Lavanya |
| 34 | 912621104016 | MAHASREE P | II / CSE | ✓ | ✓ | a | a | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 08 | Mahasree. |
| 35 | 912621104018 | PRIYA M | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Priy. |
| 36 | 912621104019 | RABIKA R | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Rab. |
| 37 | 912621104021 | SAHEENA BEGAM A | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Saha |
| 38 | 912621104022 | SASIPRIYA R | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Sasipriy. |
| 39 | 912621104023 | SHAMIMA P | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | S.Sha. |
| 40 | 912621104024 | SHEERA BANU A | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Sry. |
| 41 | 912621104025 | SIVAJOTHIKA S | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | S. |
| 42 | 912621104026 | SIVAPRIYA R | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | S.Priy |
| 43 | 912621104027 | SUBHA DHARSHINI S | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | S.Dhy |
| 44 | 912621104028 | SUBIKSHA S | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Suby. |
| 45 | 912621104029 | VINITHA K | II / CSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Pmy |
| 46 | 912621104030 | VISALATCHI S | II / CSE | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10 | Vily |

| 47 | 912621104301 | VAISHNAVI .B | II / CSE | / | / | / | / | / | / | / | / | / |  | 10 | Vaish |
| 48 | 912621104302 | VISHNU PRIYA. A | II / CSE | / | / | / | / | / | / | / | / | / |  | 10 | *(signature)* |
| 49 | 912621104701 | AARTHI. S | II / CSE | / | / | / | / | / | / | / | / | / | / | 10 | *(signature)* |
| 50 | 912621104702 | SWATHI. A.R | II / CSE | / | / | / | / | / | / | / | / | / | / | 10 | *(signature)* |

CC Coordinator

HoD / CSE
HOD / CSE
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURICHI,
PUDUKKOTTAI - 622 303

Dr. S.THILAGAVATHI M.E.,Ph.D.,
PRINCIPAL
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COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt

# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

**(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)**

**Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India**

## Report on Certificate Course

| | |
|---|---|
| Title: | **Building Scalable web application using Node js** |

| Resource Person: | **Resource Person 1:** <br> Ms. EL.Thanga Uma <br> AP / CSE | **Resource Peron 2:** <br> Ms.G.Rajalakshmi <br> AP/CSE |
|---|---|---|

| Date of conduct from : | **30.01.2023** | To: | **03.02.2023** | Duration: | **30 Hours** |
|---|---|---|---|---|---|

| Organized Department : | **COMPUTER SCIENCE AND ENGINEERING** |
|---|---|

| Participant Year: | **2,3 (CSE)** | Semester: | **EVEN** | No. of Students Registered : | **50** |
|---|---|---|---|---|---|

| Venue: | **Auditorium, II Floor** |
|---|---|

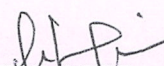### Outcome of Cetificate Course （CC ）

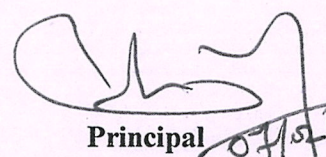**At the end of the Certificate course the student can able to**

- Develop algorithmic solutions to simple computational problems.
- Develop and execute simple Full stack framework.
- Write simple Python programs using conditionals and loops for solving problems.
- Decompose a Python program into functions.

### Assessment Process

- Student securing **more than 60% on total score** and secured more than 75% in attendance is eligible to receive the certificate for the CC course conducted
- Total Score = (0.5 *Attendance in CC out of 100 percentage + 0.5 *Test mark in CC out of 100 marks)

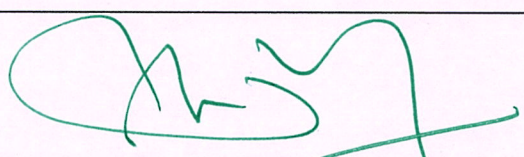**VAC Coordinator**    **HoD / CSE**    **Principal**

# SRI BHARATHI

## ENGINEERING COLLEGE FOR WOMEN

Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

# Certificate of Completion

This certificate is awarded to **Ms.D.SWETHA** of **III CSE** in recognition of their successful completion  o f

certificate course on   **BUILDING SCALABLE WEB APPLICATION USING NODE JS** during

the  academic  year  2022-2023  even semester.

**Course Coordinator**

**HoD / CSE**

Principal

Dr. **S.THILAGAVATHI** M.E.,Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
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Kaikkurchi - 622 303, Pudukkottai Dt.

# SRI BHARATHI

## ENGINEERING COLLEGE FOR WOMEN

Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

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This certificate is awarded to **Ms.M.GEETHA** of **II CSE** in recognition of their successful completion of

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the academic year 2022-2023 even semester.

**Course Coordinator**

**HoD / CSE**

**Principal**

Dr. S.THILAGAVATHI M.E.,Ph.D.,
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Kaikkurchi - 622 303, Pudukkottai Dt.

# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

### Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India
### (Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### ACADEMIC YEAR 2022-2023 / EVEN SEMESTER
Certificate Course on "Building Scalable Web application using Node JS"

Name of the Student :                                    Year/Sem:

AU Register Number:

## MCQ QUESTIONS ( 25X1 = 25 Marks)

1. Node.js is written in

    A. JavaScript                          B. C

    C. C++                              D. All of the above

2. Which of the following statement is correct?

    A. js is Server Side Language.                 B. js is the Client Side Language.

    C. js is both Server Side and Client Side Language.      D. None of the above

3. What does the REPL stand for?

    A. REPL stands for "Read Eval Print Loop."     B. REPL stands for "Research Eval Program Learn."

    C. REPL stands for "Read Earn Point Learn."     D. REPL stands for "Read Eval Point Loop."

4. How modules in Node.js can be connected from one component to another ?

    A.Expose                            B.Module

    C.Exports                          D.All of the above

5. Which of the below modules is not a built-in module in Node.js ?

    A.zlib                            B.HTTPS

    C.dgram                        D.fsread

6 Which of the below command will show all the modules installed locally ?

    A. npm ls –g                      B .npm ls

    C .node ls –g                    D .node ls

**7. Which of the below fs module is used to truncate a file ?**

A. fs.delete(fd, len, callback)

B. fs.remove(fd, len, callback)

C. fs.ftruncate(fd, len, callback)

D. None of the above.

**8. How do we return a path string from the given path object in Node.js ?**

A. path.get()

B. path.set()

C. path.format()

D. path.return()

**9. What is the default scope in the Node.js application ?**

A. Global

B. Local

C. Global Function

D. Local to object

**10. Which of the below method is used to return the current working directory of the process ?**

A. cwd();

B. cmd();

C. pwd();

D. None of the above

**11. What does the fs module stand for?**

A. FileStore

B. FileService

C. File System

D. None of the above

**12. Which of the below options is correct about package.json in the node.js application?**

A. It is present in the root directory of any Node application.

B. It is used to define the properties of a package.

C. It is used to update the dependencies of an application.

D. All of the above.

**13. Which of the below is the correct syntax for installing the Nodemon in the Node.js application ?**

A. npm install -g nodemon

B. node install -g nodemon

C. node install node

D. node install -l nodemon

**14. Which of the following command is used to start a REPL session?**

A. $ node

B. $ node start

C. $ node repl

D. $ node console

**15. In which language is Node.js written?**

A. JavaScript

B. C

C. C++

D. CoffeeScript

E. All of the above

**16 Which of the following command is used to install the Node.js express module?**

    A.$ npm install express          B.$ node install express

    C.$ install express             D. None of the above

**17. What is Callback?**

A. The callback is a technique in which a method calls back the caller method.

B. The callback is an asynchronous equivalent for a function.

C. Both of the above.

D. None of the above.

**18. Which of the following extension is used to save the Node.js files?**

    A. .js                B. .node

    C. .java              D. .txt

**19 The Node.js modules can be exposed using:**

    A.expose             B.module

    C.exports            D. All of the above

**20. Which of the following module is not a built-in node module?**

    A. zlib              B. https

    C. dgram           D. fsread

**21. Which node module is used to handle binary data?**

    A. binary           B. buffer

    C. Cyrpto          D. dgram

**22. How many node objects methods are available?**

    A. 21              B. 18

    C. 19              D. 20

23. Which of the following operations can we do with the NodeJS events module?

    A. Create                                     B. Listen for

    C. Fire                                        D. All of the above

24. Which of the following is a valid HTTP method?

    A. get                                         B. put

    C. post                                     D. All of the above

25. Which of the following NodeJS modules is used for file uploads?

    A. formidable                              B. fs

    C. express                                D. files

Dr. S.THILAGAVATHI M.E.,Ph.D.,
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Kaikkurchi - 622 303, Pudukkottai Dt.

CC Coordinator

# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

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**Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India**

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

**Certificate Course on "Building scalable web application using Node js"**

### ANSWER KEY

| 1 | d | 6 | b | 11 | c | 16 | a | 21 | b |
|---|---|---|---|----|---|----|---|----|---|
| 2 | a | 7 | c | 12 | d | 17 | b | 22 | b |
| 3 | a | 8 | c | 13 | a | 18 | a | 23 | d |
| 4 | c | 9 | b | 14 | a | 19 | c | 24 | d |
| 5 | d | 10 | a | 15 | e | 20 | d | 25 | b |

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# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN
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### Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### ACADEMIC YEAR 2022-2023 / EVEN SEMESTER
### Certificate Course on "Building scalable web application using Node js"

**Name of the Student :** K. Kalpana        **Year/Sem:** III / 06.

**AU Register Number:** 912620104005

## MCQ QUESTIONS ( 25X1 = 25 Marks)

20
25

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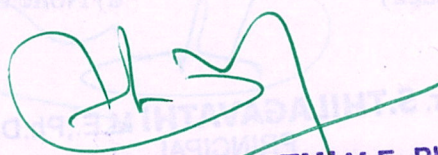16 Which of the following command is used to install the Node.js express module?

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   c) express
   d) files

# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### ACADEMIC YEAR 2022-2023 / EVEN SEMESTER

### Certificate Course on "Building scalable web application using Node js"

| S.NO | REG.NO | NAME OF THE STUDENT | YEAR/ BRANCH | ATTENDANCE DETAILS | | VAC-MCQ TEST | | OVERALL MARK(100) (50% of A + 50% of B) |
|---|---|---|---|---|---|---|---|---|
| | | | | No of Sessions Attended | Attendance Mark(100) (A) | No of Correct Answers | MCQ Mark(100) (B) | |
| 1 | 912620104001 | AKALYA S | III / CSE | 10 | 100 | 21 | 84 | 92 |
| 2 | 912620104002 | HEMA V | III / CSE | 10 | 100 | 18 | 72 | 86 |
| 3 | 912620104004 | KALAIVANI S | III / CSE | 10 | 100 | 19 | 76 | 88 |
| 4 | 912620104005 | KALPANA K | III / CSE | 10 | 100 | 20 | 80 | 90 |
| 5 | 912620104007 | MEIYYAMMAL M | III / CSE | 8 | 80 | 21 | 84 | 82 |
| 6 | 912620104008 | NANDHINI P | III / CSE | 10 | 100 | 23 | 92 | 96 |
| 7 | 912620104009 | PRASANNA DEVI P | III / CSE | 10 | 100 | 24 | 96 | 98 |
| 8 | 912620104010 | PRISHIYA E | III / CSE | 10 | 100 | 22 | 88 | 94 |
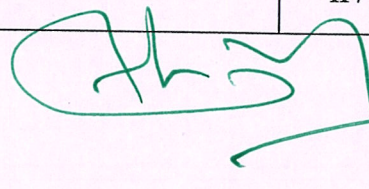
Dr. S.THILAGAVATHI M.E.,Ph.D.,
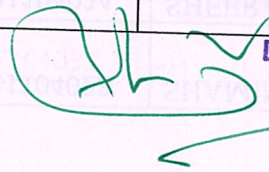PRINCIPAL
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Kaikkurchi - 622 303

| S.No | Register Number | Name | Year / Branch | No. of Sessions | Attendance (100) | No. of Correct Answers | Mark (100) | 20% of A + |
|------|-----------------|------|---------------|-----------------|------------------|------------------------|------------|------------|
| 9 | 912620104012 | ROSAMMAL M | III / CSE | 10 | 100 | 24 | 96 | 98 |
| 10 | 912620104013 | ROSHIKA K | III / CSE | 10 | 100 | 19 | 76 | 88 |
| 11 | 912620104014 | SABHA AYSHA S | III / CSE | 10 | 100 | 22 | 88 | 94 |
| 12 | 912620104015 | SATHIYASRI P | III / CSE | 10 | 100 | 23 | 92 | 96 |
| 13 | 912620104016 | SIVAGAMI D | III / CSE | 10 | 100 | 24 | 96 | 98 |
| 14 | 912620104017 | SIVAHARINI S | III / CSE | 10 | 100 | 21 | 84 | 92 |
| 15 | 912620104018 | SUBASHINI C | III / CSE | 10 | 100 | 19 | 76 | 88 |
| 16 | 912620104019 | SUBASHINI M | III / CSE | 10 | 100 | 17 | 68 | 84 |
| 17 | 912620104020 | SWETHA D | III / CSE | 8 | 80 | 24 | 96 | 88 |
| 18 | 912620104021 | VANATHI T | III / CSE | 10 | 100 | 22 | 88 | 94 |
| 19 | 912620104022 | VINCIYA MARY S | III / CSE | 10 | 100 | 24 | 96 | 98 |
| 20 | 912620104304 | VAISHNAVI R | III / CSE | 10 | 100 | 21 | 84 | 92 |
| 21 | 912621104001 | ABINAYA K | III / CSE | 10 | 100 | 20 | 80 | 90 |
| 22 | 912621104002 | AMEERA N | III / CSE | 10 | 100 | 24 | 96 | 98 |
| 23 | 912621104003 | ANJUGAM C | II / CSE | 10 | 100 | 25 | 100 | 100 |

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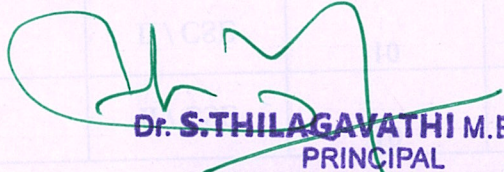Kaikkurchi - 622 303, Pudukkottai Dt.

| 24 | 912621104004 | ARUNDATHI S | II / CSE | 10 | 100 | 18 | 72 | 86 |
| 25 | 912621104005 | ASHIKA B | II / CSE | 10 | 100 | 23 | 92 | 96 |
| 26 | 912621104006 | DIVYA T | II / CSE | 10 | 100 | 17 | 68 | 84 |
| 27 | 912621104007 | ELACKIYA G | II / CSE | 10 | 100 | 24 | 96 | 98 |
| 28 | 912621104008 | GAYATHRI K | II / CSE | 10 | 100 | 23 | 92 | 96 |
| 29 | 912621104009 | GEETHA M | II / CSE | 10 | 100 | 24 | 96 | 98 |
| 30 | 912621104010 | HARSHITHA P | II / CSE | 10 | 100 | 24 | 96 | 98 |
| 31 | 912621104011 | ISHWARYA S | II / CSE | 10 | 100 | 23 | 92 | 96 |
| 32 | 912621104012 | JANANI R | II / CSE | 10 | 100 | 24 | 96 | 98 |
| 33 | 912621104015 | LAVANYA S | II / CSE | 10 | 100 | 21 | 84 | 92 |
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| 35 | 912621104018 | PRIYA M | II / CSE | 10 | 100 | 23 | 92 | 96 |
| 36 | 912621104019 | RABIKA R | II / CSE | 10 | 100 | 22 | 88 | 94 |
| 37 | 912621104021 | SAHEENA BEGAM A | II / CSE | 10 | 100 | 21 | 84 | 92 |
| 38 | 912621104022 | SASIPRIYA R | II / CSE | 10 | 100 | 23 | 92 | 96 |
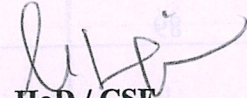
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| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 39 | 912621104023 | SHAMIMA P | II / CSE | 10 | 100 | 24 | 96 | 98 |
| 40 | 912621104024 | SHEERA BANU A | II / CSE | 10 | 100 | 19 | 76 | 88 |
| 41 | 912621104025 | SIVAJOTHIKA S | II / CSE | 10 | 100 | 18 | 72 | 86 |
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| 44 | 912621104028 | SUBIKSHA S | II / CSE | 10 | 100 | 22 | 88 | 94 |
| 45 | 912621104029 | VINITHA K | II / CSE | 10 | 100 | 22 | 88 | 94 |
| 46 | 912621104030 | VISALATCHI S | II / CSE | 10 | 100 | 23 | 92 | 96 |
| 47 | 912621104301 | VAISHNAVI .B | II / CSE | 10 | 100 | 24 | 96 | 98 |
| 48 | 912621104302 | VISHNU PRIYA. A | II / CSE | 10 | 100 | 21 | 84 | 92 |
| 49 | 912621104701 | AARTHI. S | II / CSE | 10 | 100 | 24 | 96 | 98 |
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