



MODERN EDUCATION SOCIETY'S

NOWROSJEE WADIA COLLEGE

(An Autonomous College under Savitribai Phule Pune University)

Laboratory Course on Web Frameworks

National Education Policy (NEP) Syllabus

To be implemented from Academic Year 2023-2024

M.Sc.(Computer Science)-Part I

Semester II

2024-25

Co-Ordinator

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Prepared by

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Roll No :

Name :

WEB FRAMEWORKS
ASSIGNMENT COMPLETION SHEET

Sr. No	Assignment Name	Marks
1	Javascript	
2	Node JS	
3	MongoDB	
4	Express JS Framework	
5	DJango Framework	
Total marks out of 25		
Total marks out of 10		

Signature of Batch In-charge:

Examiner I:

Examiner II:

Date:

Assignment 1: JavaScript

Pre-Reading

- Javascript Basics
- Regular Expressions
- Functions, Array

Lab Assignments

1. Create an HTML form that contains the Student Registration details and write a JavaScript to validate Student first and last name as it should not contain other than alphabets and age should be between 18 to 50.
2. Create an HTML form that contains the Employee Registration details (Employee Number, Employee Name, Salary, DOB, Joining Date.) and Write a JavaScript to validate DOB, Joining Date i.e. DOB should be less than the Joining Date by 20 Years.
3. Create an HTML form for Login and write a JavaScript to validate email ID using Regular Expression.

Extra Practice Question:

Create an HTML form that contains the Admission details such as PRN No. Name, Class, previous qualification details. and Write a JavaScript to validate PRN No. such that it should not exceed 12 digits and only numbers must be allowed for that field. Also convert Name to uppercase on-keyup event.

Signature of the instructor

Date

Assignment Evaluation

0: Not done

2: Late Complete

4: Complete

1: Incomplete

3: Needs Improvement

5: Well Done

Assignment 2: Node JS

Pre-Reading

- File System Module
- HTTP Module
- Events

Lab Assignments

1. Using nodejs create a web page to read two file names from the user and append contents of the first file into the second file.
2. Write node js script to build Your own Node.js Module. Use require ('http') module is a built-in Node module that invokes the functionality of the HTTP library to create a local server. Also use the export statement to make functions in your module available externally. Create a new text file to contain the functions in your module called, "modules.js" and add this function to return today's date and time.
3. Create a js file named main.js for an event-driven application. There should be a main loop that listens for events, and then triggers a callback function when one of those events is detected.

Extra Practice Question:

1. Write node.js script to build module circle.js has export the functions area() and circumference().
2. Design Node.js application to count occurrence of given word in a file and display count on console.

Signature of the instructor

Date

Assignment Evaluation

0: Not done

2: Late Complete

4: Complete

1: Incomplete

3: Needs Improvement

5: Well Done

Assignment 3: MongoDB

Pre-Reading

- MongoDB CRUD Operations
- Methods for CRUD

Lab Assignments

1. Create a node.js file that Select all records from the "customers" table, and display the result object on console.
2. Create a node.js file that inserts Multiple Records in the "student" table, and display the result object on console.
3. Create a node.js file that Select all records from the "customers" table, and delete the specified record.

Signature of the instructor

Date

Assignment Evaluation

0: Not done

2: Late Complete

4: Complete

1: Incomplete

3: Needs
Improvement

5: Well Done

Assignment 4: Express JS

Pre-Reading

- Routing
- Views
- Rendering Data

Lab Assignments

1. Using node js create a User Login System.
2. Create a Recipe Book using express JS and Render the EJS files on different links created in the recipe book.
3. Create node js application that transfers a file as an attachment on the web and enables the browser to prompt the user to download a file using express js.

Extra Practice Question:

Using Node.JS, create a web page(Use EJS Template Engine) to accept the employee details and render that page on the browser. Process the filled data using the POST method and display the data on the next page.

Signature of the instructor

Date

Assignment Evaluation

0: Not done

2: Late Complete

4: Complete

1: Incomplete

3: Needs
Improvement

5: Well Done

Assignment 5: Django Framework

Pre-Reading

- About 3 Core files(model.py,urls.py,views.py)
- URL Patterns
- Views And Templates
- Forms & Validations

Lab Assignments

1. Design Django application to display “Hello,Welcome to School of Computer science at NWC” message using template.
2. Design a Django application that adds web pages with views and templates.
3. Implement URL mapping and page redirection by using django frameworks which contain at least two pages.
4. Create a login application using the django framework on successful login display appropriate message.

Extra Practice Questions:

1. Design simple django form which contains student details (fname, lname,class,email,MobNo,address,resume_file) on submit display student details on web page.
2. Create a django application which contains HomePage and AboutUs pages.whenever it is redirected to about_us function it displays “An Autonomous College under Savitribai Phule Pune University” message otherwise it return response as “Welcome to Indira College of Commerce and Science Pune”.

Signature of the instructor

Date

Assignment Evaluation

0: Not done

2: Late Complete

4: Complete

1: Incomplete

3: Needs Improvement

5: Well Done