

**Dharmsinh Desai University**  
**MCA Semester – 3 (2024-25)**  
**23MCA3001 – Advanced Web Development**

**Practical - 6**

**Prerequisite:** Perform the programs given in the Lab. manual provided during the regular classroom sessions.

1. Create appropriate HTML/JavaScript/Node.js/Express.js code for the following web-application requirement:
  - a. Create a text file 'file.txt' with minimum 200 lines.
  - b. Create a Node.js functionality to show contents of the 'file.txt' in synchronous way.
  - c. Create a Node.js functionality to show contents of the 'file.txt' in asynchronous way.
  - d. Explain difference between both of the programming approaches used in above mentioned tasks (b) and (c).
2. Develop an Express.js functionality for the following requirements:
  - a. Create a '/architecture' route which sends server's architecture to web-client.
  - b. Create a '/cpu' route which sends server's CPU details to web-client.
  - c. Create a '/freemem' route which sends server's free memory details to web-client.
  - d. Create a '/avgload' route which sends server's workload details to web-client.
  - e. Create a '/osplatform' route which sends server's OS platform details to web-client.
  - f. Create a '/version' route which sends server's OS version details to web-client.
  - g. Create a '/user' route which sends server's current-user details to web-client.
3. Create appropriate HTML/JavaScript/Node.js/Express.js code for the following web-application requirement:
  - a. On server-side,
    - i. receive - (1) some filename, and (2) some multiline text -through an HTML form from client side.
    - ii. Create a new file with a name received from client-side.
    - iii. In that file, store the multiline text received from client-side.
  - b. To client,
    - i. Give appropriate feedback/response.
    - ii. Show appropriate error message in case of an error.
  - c. Create one more route '/showfilecontents' to show contents of that textfile in a web-browser on client side.
4. Create appropriate HTML/JavaScript/Node.js/Express.js code for the following web-application requirement:
  - a. Implement basic login functionality (username = password).
  - b. In case of valid credentials, show appropriate "Welcome <username>" message. Otherwise show "Error: Invalid credentials".
5. In the 4-b, also show the login form.
6. In the 4-a,
  - a. divert user to some other 'welcome <username>' page
  - b. in which show his photograph (i.e. static file).

7. ..,

- a. Create a file 'personal.txt' which should contain user's personal details such as – name, surname, address, contact details, gender, etc.
- b. Create a file 'educatioal.txt' which should contain user's educational details such as – semester, coursename, universityname, cpi, etc.
- c. In 6, also show contents of personal.txt and educational.txt – in proper format/orientation/style.

---