

Assignment 1

Subject: Server Side Web Development with Node JS

Subject Code: CSE 3192

B. Tech, Semester: 6th (Academic Year: 2024-2025)

1. Create a Nodejs application which accepts the first_name, middle_name, last_name of a person and date of birth of a person in DD-MM-YYYY format and define a module named as “mymodule” that concatenates the first_name, middle_name and last_name and estimates the current age of the person displays the output in the console and also displays the age of the person twenty four years after now.
2. Write a program using Nodejs server side application so that the program checks whether a given name is palindrome or not.
3. Write a program using Nodejs application to find the roots of a given quadratic equation: $ax^2 + bx + c = 0$ (find both real and imaginary roots)
4. Create a Nodejs application which uses a javascript file known as circle.js which exports the function myarea() and another function mycircumference to display the details of function in another file second.js.
5. Create a Nodejs application that opens a requested files and returns the content of the concerned file and if anything goes wrong it throws a 404 error.
6. Create a Nodejs application to download a jpg image from a given server.
7. Write a program in node js to import a given JSON file containing the following contents
{
Name: Paresh,
LastName: Sharma,
YOB:1990,
City :Chennai,
Age:36,
Salary: 100000
}
8. Write a program in Node.js to create a simple http sever which listens to a port 8125 and checks and displays whether a given number is an Armstrong number or not ,through the URL(Use: IPV4 address: 127.0.0.2)

9. Write a program in Node.js to create a simple node js server listening to a port 8123 and display the factorial and number of factors of a number through the URL having IPV4 address as 127.0.0.2
10. Write a program using simple http that listens to a port 8185 and check whether a given number is a palindrome or not and show the results in the URL.
11. Write a program in Nodejs to check whether a given number is a prime number or not using ES6 module format.
12. Write a program using util.inspect() to print details of a complex object using ES6 module format.

Assignment 2

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1. Write a program in Node.js to list the files present in a particular directory using ES6 module format.
2. Write a program in Node.js to implement the concept of Asynchronous programming to demonstrate the use of Promises.
3. Write a program in Node.js to find the volume of a cube of a given radius using ES6 module format.
4. Write a program in Node.js to read a file asynchronously using the appropriate file module.
5. Write a program in Node.js ES6 module format to find the volume of a given sphere and display the results in URL.
6. Write a program in Node.js to implement the concept of event module.
7. Write a program in Node.js to implement the phenomenon of event sending and event receiving by the Event Emitter.
8. Write program in Node.js to use the GCD and LCM of three three digit numbers using functions `calgcd()` and `calclcm()` in a file named as `fl.mjs` and export the content of `file1.mjs` using both default and named export and import these contents in `file2.mjs` to display the GCD and LCM values and again find the number of factors of the GCD and LCM values obtained individually and store them in `fc_gcd` and `fc_lcm` and using named export concept, export these values and import these two values in a new file `file3.mjs` to display the results.
9. Write a program in Node.js to find the number of files present in a particular directory.
10. Write a program in Node.js to implement the concept of asynchronous function by showing the concept of error generation through concept of catch.
11. Write a program in Node.js to check whether a given number is a Neon number or not using Express.
12. Write a program in Node.js to implement the concept of call back function using Express.

13. Write a program in Nodejs to find the sum of digits of a given six digit number(use promises).
14. Write a program in Nodejs ES6 module format to print average marks of three students in six different subjects.
15. Write a program in Nodejs to print details of operating system present in your system. Using ES6 module format.
16. Write a program in Nodejs to check whether a given number is a Strong number or not.