Node Js Questions

1. Create a server in node-js to accept the request from the client. On receiving request send response either in HTML format or in Text format. Display message on console that Server running on local host

```
ANS-Q1 NODE

const http=require('http')
const fs=require('fs')
const path=require('path')
const port=8000
const server=http.createServer((req,res)=>{
  if(req.url=='/'){
    res.end("hello world")
  }
  else if(req.url=='/home'){
    res.end("hello home")
  }
})
server.listen(port,()=>{
  console.log("listennig")
})
```

2. Write a program in Node js to create your own modules to perform arithmetic operations such as addition, subtraction, multiplication, division. Import these modules to create a calculator in another nodejs file

```
ANS- //Q2

//practice.js
exports.add=function(x,y){
  return x+y;
};
exports.sub=function(x,y){
  return x-y;
};
exports.mul=function(x,y){
  return x*y;
};
exports.div=function(x,y){
  return x/y;
};
//any other js file

var calc=require('./practice');
var a=10,b=5;
console.log(calc.add(a,b));
console.log(calc.sub(a,b));
console.log(calc.mul(a,b));
console.log(calc.div(a,b));
```

3. Write a program in node js to read the existing file data, display on console, and write the data in the existing file
(Hint use fs module of Node js)

ANS-

```
Q3 NODE
var fs=require("fs");
var data=fs.readFileSync('input.txt');
console.log(data.toString());
```

4. Write a program in node js to read the existing file data, display on console, and delete he existing file
(Hint use fs module of Node js)

ANS-

```
Q4 NODE
var fs=require("fs");
var data=fs.readFileSync('input.txt');
console.log(data.toString());
fs.unlink("input.txt",function(err){
    if(err)throw(err);
    console.log("file deleted!");
})
```

5. Create a server in node-js to accept the request from the client. On receiving request send HTML form in response. Display message on console that Server running on local host

```
ANS- const http=require('http')
const fs=require('fs')
const path=require('path')
const port=3000
const server=http.createServer((req,res)=>{
  if(req.url=='/'){
    res.end("hello world")
  }
  else if(req.url=='/form'){
    fs.readFile('form.html','utf-8',(err,data)=>{
      res.end(data)
    })
  }
})
server.listen(port,()=>{
  console.log("listen")
})
```

6. Create a server in node-js to accept the request from the client. On receiving request send HTML Table in response. Display message on console that Server running on local host

```
ANS-Q6 NODE

const http=require('http')
const fs=require('fs')
const path=require('path')
const port=3000
const server=http.createServer((req,res)=>{
  if(req.url=='/'){
    res.end("hello world")
  }
  else if(req.url=='/table'){
    fs.readFile('timetable.html','utf-8',(err,data)=>{
      res.end(data)
    })
  }
})
server.listen(port,()=>{
  console.log("listen")
})
```

Express Questions

1. Create server in express js to accept the request from the client. Based on the route specified by user send the response (Hint use get method)

   If route is '/'- send response as information which will be displayed on browser
   If route is '/books' - send response as books information which will be displayed on browser

```
ANS-Q1 EXPRESS

const http=require('http')
const fs=require('fs')
const express=require('express')
const app=express()
const path=require('path')
const port=5000
app.get('/',(req,res)=>{
  res.end('this is homepage')
})
app.get('/books',(req,res)=>{
  res.end('this is book')
})
app.listen(port,()=>{
  console.log("listening")
})
```

2. Create server in express js to accept the request from the client. Based on the route specified by user send the response (Hint use both get and post method and body parser)

If route is '/'- send response as HTML form.
On form submit use post method, get the data field in form and display in on the browser

ANS-Q2 EXPRESS

```
var express=require('express');
var app=express();
const port=8000
var bodyParser=require("body-parser");
app.use(bodyParser.urlencoded({extended:false}));
app.get('/form1',function(req,res){
    res.sendFile(__dirname+'/input.html')
});
app.post('/form',function(req,res){
    var name=req.body.Fname+' '+req.body.Lname;
    res.send(name+' submitted succesfully');
});
app.listen(port,function(){
});
```

Mongo DB Questions

1. Create Student Database, create collection student information and perform insert, update, remove operation.

2. Create Student Database, create collection student information and perform insert operation. Write the following queries:

Display student information who has secured more than 90%.
Display student information who failed the examination
Display student information who stays in Andheri

3. Create Mongo dB Schema using mongoose module and insert data into database

4. Create Mongo dB Schema using mongoose module and Find All data from data base and display on browser

5. Create Mongo dB Schema using mongoose module and find first data from data base and display on the browser

ANS-

```
const mongoose = require('mongoose');

const { Course } = require('./model.js');
const express = require('express')
const bodyParser = require('body-parser')
```

```
const app = express()
const parser = bodyParser.urlencoded({extended: true})

mongoose.connect('mongodb://localhost:27017/test-db',
    {
        useNewUrlParser: true,
        useUnifiedTopology: true
    });


var Schema = mongoose.Schema
const Peoples = mongoose.model('People_names', new Schema(
    {
        fname: String,
        lname: String,
    }
), 'people');

app.get('/', (req, res) => {
    console.log(__dirname)
    res.sendFile(__dirname + '/index.html')
})

app.get('/data', (req, res) => {
    Peoples.find({}, function(err,collection){
        res.send(collection)
    });
})

app.post('/fill-data', parser,(req, res) => {
    const data = {
        fname: req.body.fname,
        lname: req.body.lname
    }
    Peoples.insertMany(data, (err, value) => {
        if (err) {
            console.log(err)
        } else {
            console.log("Saved succesfully")
        }
    })
    res.redirect('/data')
})

app.listen(8000)
```

React Questions

1. Create a react application for rendering single element and rendering component having multiple elements

ANS-

2. Create a react application for rendering components having multiple elements and reusing the components at multiple places.

3. Create a react application to build user defined component, export the component and import user defined component

4. Create a react application to Import and use CSS in react application

5. Create a react application to implement props in react application

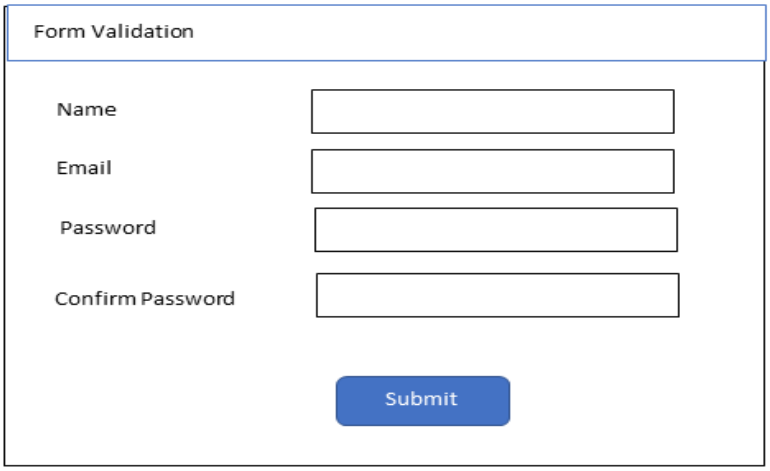
6. Create a react application for Raising and handling event.

7. Create a react application to Use of react using State hook to increment and decrement value.

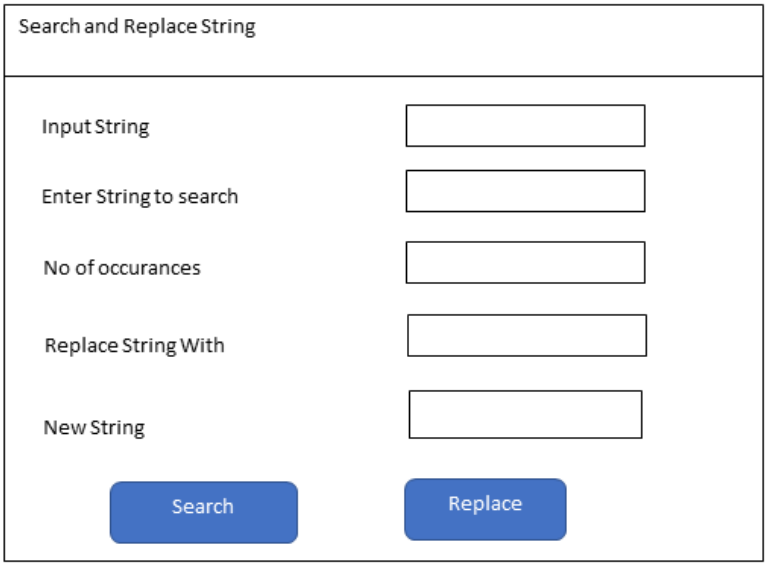
ANS-
```
import './App.css';

import React,{useState} from 'react';



function App() {
  const[count,setCount]=useState(0);
  function decrease(){
    setCount(count-1)
  }
  function increase(){
    setCount(count+1)
  }
  return (
    <div className="App">
      <button onClick={decrease}>-</button>
      {count}
      <button onClick={increase}>+</button>
    </div>

  );
}

export default App;
```

Java Script Questions

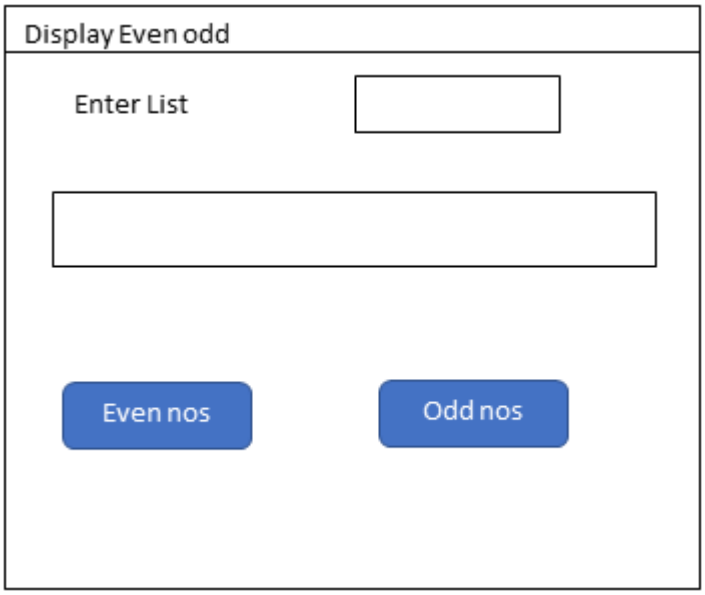
1. Write program to perform form validation using JavaScript



2. Write a program to search the string in the given program, display number of occurrences of string and replace the string with new string



3. Write JavaScript program to display the even nos and odd nos from the given list



4. Write a program in JavaScript to take a list of numbers from user and double all the numbers and display the doubled list

5. Program to design a calculator using JavaScript

8. Write a JavaScript program to sort the items of an array.

7. Create a function that takes two numbers as arguments (number, length) and returns an array of multiples of number until the array length reaches length.

ANS-

```
<!DOCTYPE html>

<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    multiple:<input type="number" id="multiple">
    length:<input type="number" id="length">
    <input type="submit" onclick="arraymulti()">
    <p id="answer" value=" "></p>
    <script>
        function arraymulti(){
            let a=document.getElementById("multiple").value
            let b=document.getElementById("length").value
            let arr=[]
            let x=1
            for(let i=1; i<=b;i++){
                arr.push(a*x);
                x++
            }
            document.getElementById("answer").innerHTML=arr
            console.log(arr)
        }
    </script>

</body>
</html>
```

8. Create a function that determines whether a number is Oddish or Evenish. A number is Oddish if the sum of all its digits is odd, and a number is Evenish if the sum of all its digits is even. If a number is Oddish, return "Oddish". Otherwise, return "Evenish".

ANS-

```
<!DOCTYPE html>

<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    ENter a number:<input type="number" value="0" id="num">
    <input type="submit" onclick="tocheck()">
    <p id="result" value=" "></p>
```

```
    <script>
        function tocheck(){
            let n=document.getElementById("num").value
            let a=n.toString();
            let b=0
            for(let i=0;i<a.length;i++){
                b+parseInt(a[i]);
            }
            if(b%2===1){
                document.getElementById("result").innerHTML="Oddish";
                console.log("oddish")
            }
            else{
                document.getElementById("result").innerHTML="Evenish"
                console.log("evenish")
            }
        };
    </script>
</body>
</html>
```

9. Create a function that will return the total number of digits in the given no as 234123 has 6 digits and Sum of all the digits

```
ANS-<!DOCTYPE html>

<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    Enter number:<input type="number" id="number">
    <input type="submit" onclick="tosum()">
    <br>
    Sum of digits:<p id="sum" value=" "></p>
    Number of digits:<p id="length" value=" "></p>
    <script>
        function tosum(){
            let n=document.getElementById("number").value
            var a=n.toString();
            let sum=0;
            for(let i=0;i<a.length;i++){
                sum+=parseInt(a[i]);
            }
            document.getElementById("sum").innerHTML=sum
            document.getElementById("length").innerHTML=a.length
        }
    </script>
</body>
</html>
```

10. Write a JavaScript program to test whether the first character of a string is uppercase or not.

ANS-

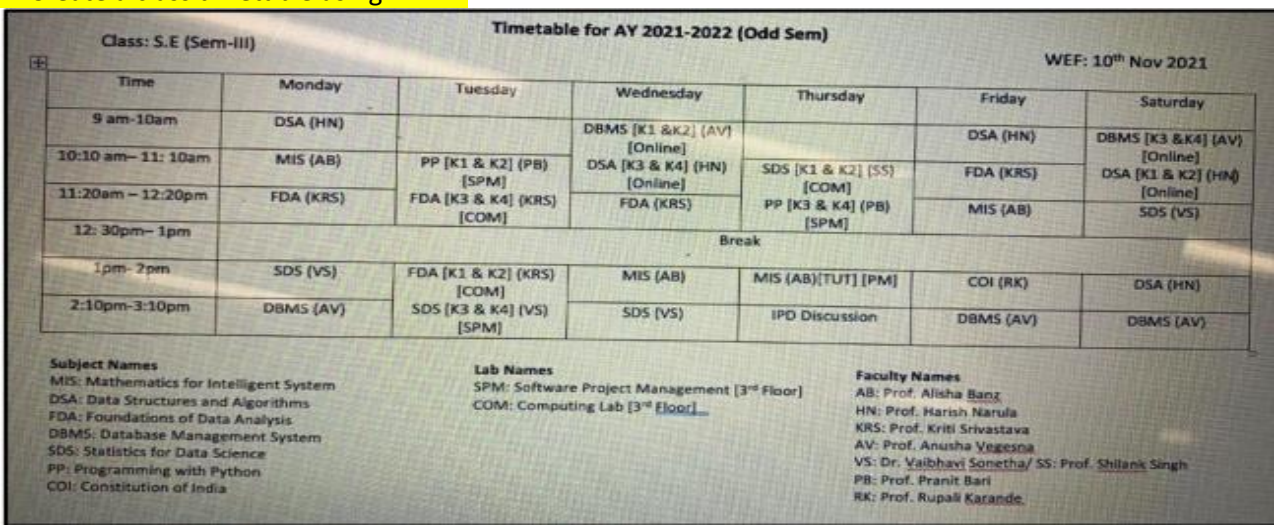
```
<!DOCTYPE html>

<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    Enter string:<input type="text" id="string">
    <input type="submit" onclick="toCheck()">
    <p id="answer" value=" "></p>
    <script>
        function toCheck(){
            let str=document.getElementById("string").value
            let strch=/^[A-Z]/;
            if(strch.test(str)){
                document.getElementById("answer").innerHTML="First element
uppercase"
                console.log("Uppercase")
            }
            else{
                document.getElementById("answer").innerHTML="First element
lowercase"
                console.log("Lowercase")
            }
        }
    </script>
</body>
</html>
```

11. Write a JavaScript program to count and display the items of a dropdown list, in an alert window

HTML and CSS Questions

1. Create a static web page using HTML.

2. Create a class timetable using HTML.



Class: S.E (Sem-III)

Timetable for AY 2021-2022 (Odd Sem)

WEF: 10th Nov 2021

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9 am-10am	DSA (HN)		DBMS [K1 &K2] (AV) [Online]		DSA (HN)	DBMS [K3 &K4] (AV) [Online]
10:10 am– 11: 10am	MIS (AB)	PP [K1 & K2] (PB) [SPM]	DSA [K3 & K4] (HN) [Online]	SDS [K1 & K2] (SS) [COM]	FDA (KRS)	DSA [K1 & K2] (HN) [Online]
11:20am – 12:20pm	FDA (KRS)	FDA [K3 & K4] (KRS) [COM]	FDA (KRS)	PP [K3 & K4] (PB) [SPM]	MIS (AB)	SDS (VS)
12: 30pm– 1pm	Break					
1pm- 2pm	SDS (VS)	FDA [K1 & K2] (KRS) [COM]	MIS (AB)	MIS (AB)[TUT] [PM]	COI (RK)	DSA (HN)
2:10pm-3:10pm	DBMS (AV)	SDS [K3 & K4] (VS) [SPM]	SDS (VS)	IPD Discussion	DBMS (AV)	DBMS (AV)

Subject Names
MIS: Mathematics for Intelligent System
DSA: Data Structures and Algorithms
FDA: Foundations of Data Analysis
DBMS: Database Management System
SDS: Statistics for Data Science
PP: Programming with Python
COI: Constitution of India

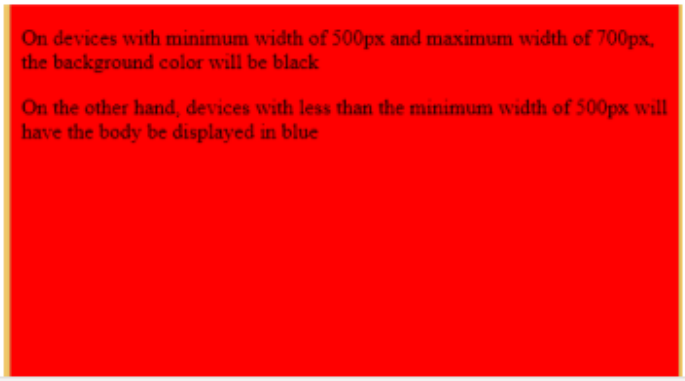
Lab Names
SPM: Software Project Management [3rd Floor]
COM: Computing Lab [3rd Floor]

Faculty Names
AB: Prof. Alisha Banz
HN: Prof. Harish Narula
KRS: Prof. Kriti Srivastava
AV: Prof. Anusha Vegesna
VS: Dr. Vaibhavi Sonetha/ SS: Prof. Shilank Singh
PB: Prof. Pranit Bari
RK: Prof. Rupali Karande

3. Create a registration form using HTML.

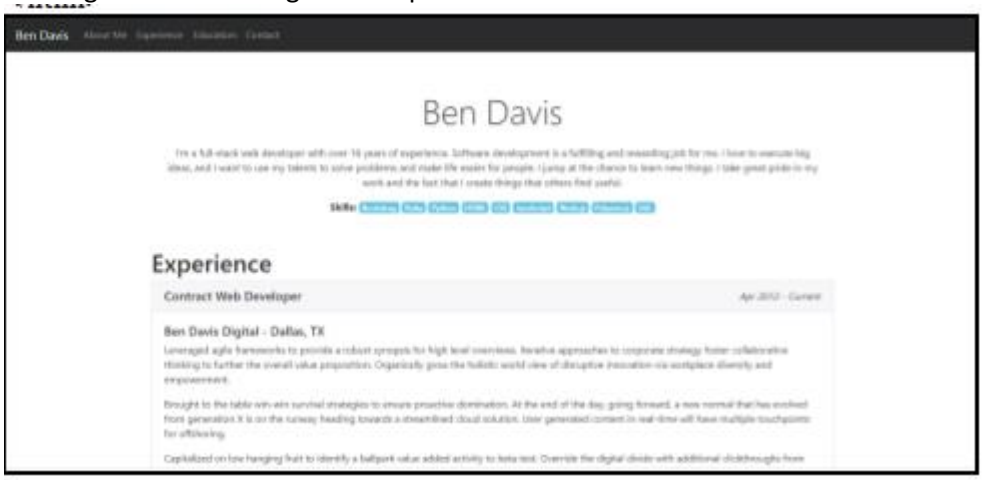
4. Design a web page using External or Embedded Style Sheet.

5. Design a responsive web page using media queries and CSS3.



6. Design a web page using Bootstrap.

7. Design a resume using Bootstrap.



8. Design the admission form using Bootstrap.