Name :-Disha Tanaji Mane

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Node.js Practical

Sr. No.	Practical Name	Date
1	Steps to download node.js	28/08/2023
2	Steps to download visual studio	28/08/2023
3	Demonstrate the basic arithmetic operations in Node.js	28/08/2023
4	To determine whether a given number is even or odd in Node.js	28/08/2023
5	To print all prime numbers up to a given number in Node.js	04/09/2023
6	Create an application in Node.JS to reverse the given number and display it	04/09/2023
7	Create an application in Node.js to display Armstrong number 15	04/09/2023
8	To generate the first 10 numbers in the Fibonacci sequence in Node.js	04/09/2023
9	To demonstrate the use of setTimeout and arrow functions in Node.js	11/09/2023
10	To demonstrate module exports in Node.js	11/09/2023
11	write an application to find area of circle, square, rectangle using module in Node.js	11/09/2023
12	Write an application to demonstrate events module in Node.js	11/09/2023
13	write an application to demonstrate function (removeListner, listnerCount) in Node.js	18/09/2023
14	create an application in node.js to Return Event Emitter	18/09/2023
15	create an application in node.js to create Extend Event Emitter in Node.js	18/09/2023
16	Write an event emitter code to design an event called as “calculate Salary” which is used to calculate the salary of an employee by passing some arguments like Basic Salary, HRA (20% of Basic), DA(100% of Basic), TA, and deductions like Income Tax (30% of Basic) and Professional Tax of 200	18/09/2023
17	create an application in node.js to display message after 5 second &10 second	09/10/2023
18	create an application in node.js to demonstrate set interval function	09/10/2023
19	create an application in node.js to display factorial of a number	09/10/2023
20	Write as application to create http Server and Display message in Node.js	09/10/2023
21	Write a Node.js code to display Employee Job Registration Form saved in an HTML file in response to the client’s access request to the server.	16/10/2023
22	Write as application to create Home page, Admin page and Student page using http server in Node.js.	16/10/2023
23	Write in application to display details of the current file path in Node.js.	16/10/2023
24	Write an application to read file in Node.js	16/10/2023
25	Write an application to write in file in Node.js.	23/10/2023
26	Write an application to add data in file in Node.js.	23/10/2023

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27	Write an application to delete a file in Node.js	23/10/2023
28	Combine Read, Write, Append, Delete file in one program in Node.js	23/10/2023
29	Write and application to rename a file in Node.js	20/11/2023
30	Create an Application to create Database in Node.js	20/11/2023
31	Create an Application to create Student table with columns as id, name, address, course, contact in Node.js	20/11/2023
32	Create an Application to insert rows into Student table in Node.js	20/11/2023
33	Create an Application to display rows into Student table in Node.js	04/12/2023
34	Create an Application to Update rows in Student table in Node.js	04/12/2023
35	Write a Node.js application to retrieve and update the record related to the entries received for the conference participation. Update the mobile number of participant whose name is “Sharma	11/12/2023
36	Create an Application to add column to Student table in Node.js	11/12/2023
37	Create an Application to delete records in Student table in Node.js	11/12/2023

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Angular Practical

Sr. No.	Practical Name	Date
1	Create an application in angular.js to demonstrate arithmetic operations and list.	06/09/2023
2	Create an application in angular.js to calculate registration fees if the number of people and registration amount is given by the user	06/09/2023
3	Create an application in angular.js to calculate simple interest take appropriate input from the user	12/09/2023
4	Write an application in angular.js to create an array of names and display all the names which has letter “i” using controller	26/09/2023
5	Create an application in angular.js to demonstrate the use of filters	26/09/2023
6	Create an application in angular.js to change the background color as the user changes input in the textbox	03/10/2023
7	Create an application in angular.js to demonstrate to display text in alert box	17/10/2023
8	Create an application in angular.js to demonstrate the use of ng-if, ng-disabled and ng-readonly	17/10/2023
9	Create an application in angular.js to demonstrate use of mouse enter and mouse-leave even	31/10/2023
10	Write an application in angular js to display options using select tag as user chooses the color option the respective color and content should change	31/10/2023
11	Write an Angular JS code to display a Registration form for Student applying for a new Course. Display all the values entered by the students.	21/11/2023
12	To demonstrate the use of regular expressions for validating input fields in a form	21/11/2023
13	To demonstrate use of validation directives.	05/12/2023
14	To demonstrate the state properties of form fields	05/12/2023
15	To demonstrate the use of a Single Page Application (SPA)	12/12/2023
16	Create an application with Login page and Registration Page using Single Page Application(SPA)	12/12/2023

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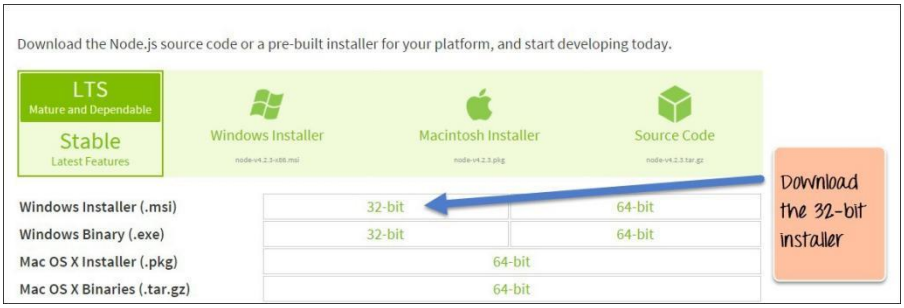
PRACTICAL NO: 01

Aim:-Steps to download node.js

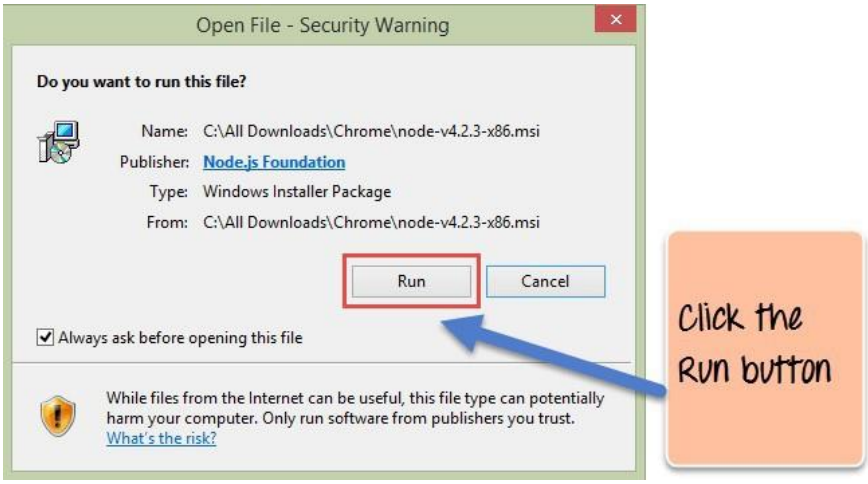
Step 1) Download Node.js Installer for Windows

Go to the site https://nodejs.org/en/download/ and download the necessary binary files.



Step 2) Run the installation Double click on the downloaded .msi file to start the installation.

Click the Run button on the first screen to begin the installation.



Step 3) Continue with the installation steps In the next screen, click the “Next” button to continue with the Node.js download and installation

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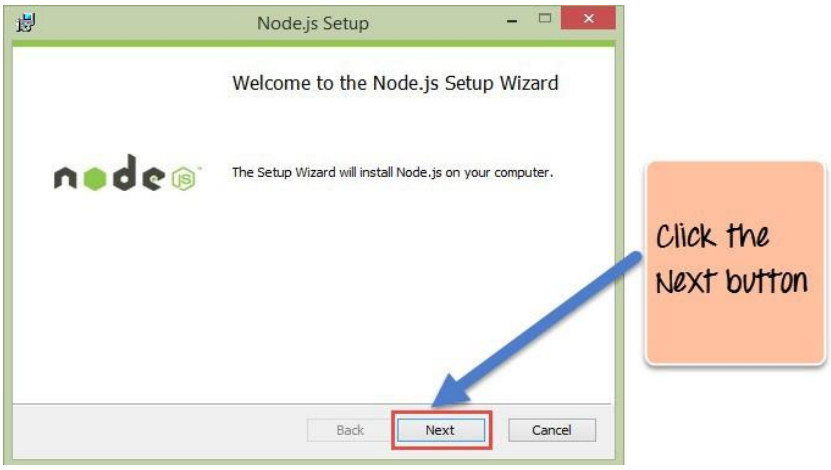
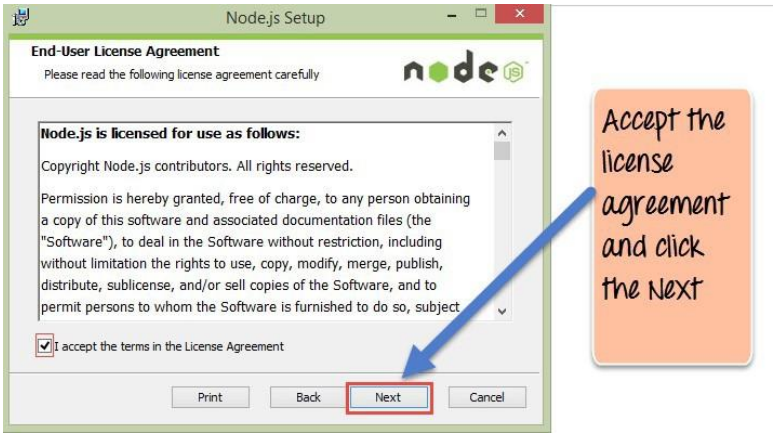
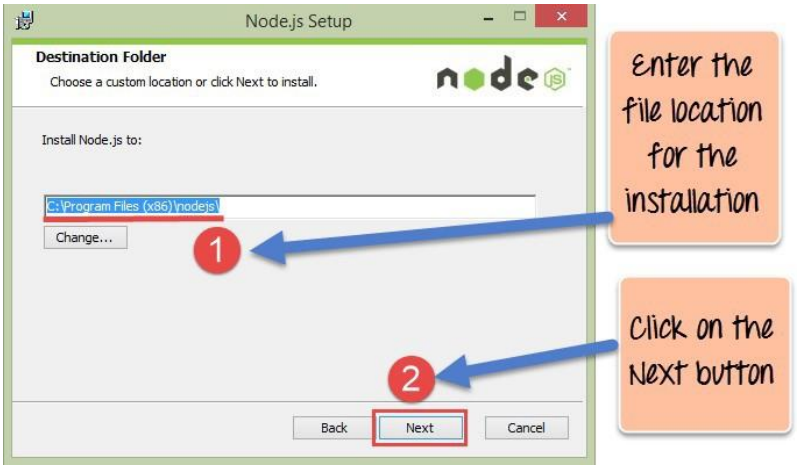


Step 4) Accept the terms and conditions In the next screen, Accept the license agreement and click on the Next button



Step 5) Set up the path In the next screen, choose the location where Node.js needs to be installed and then click on the Next button.



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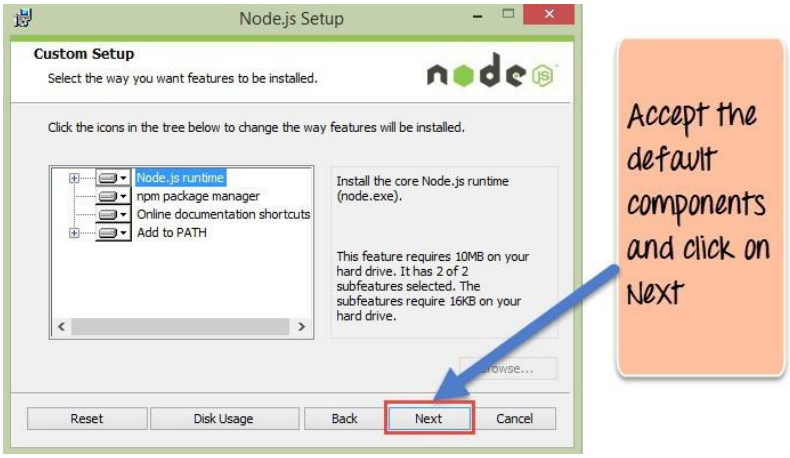
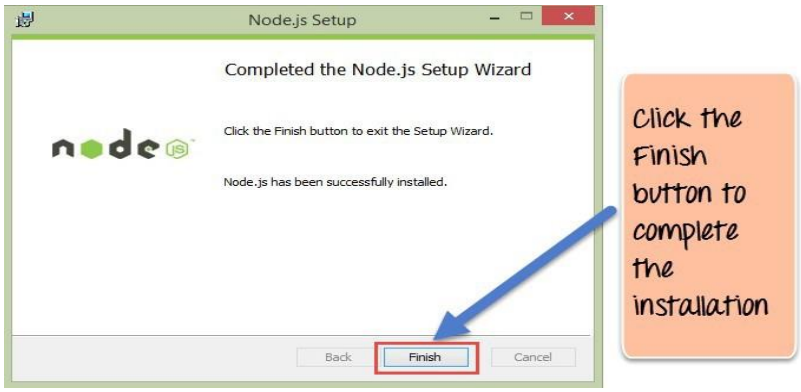
Step 6) Select the default components to be installed Accept the default components and click on the Next button.



Step 7) Start the installation In the next screen, click the Node.js install button to start installing on Windows

Step 8) Complete the installation Click the Finish button to complete the installation.

Complete the installation Click the Finish button to complete the installation.



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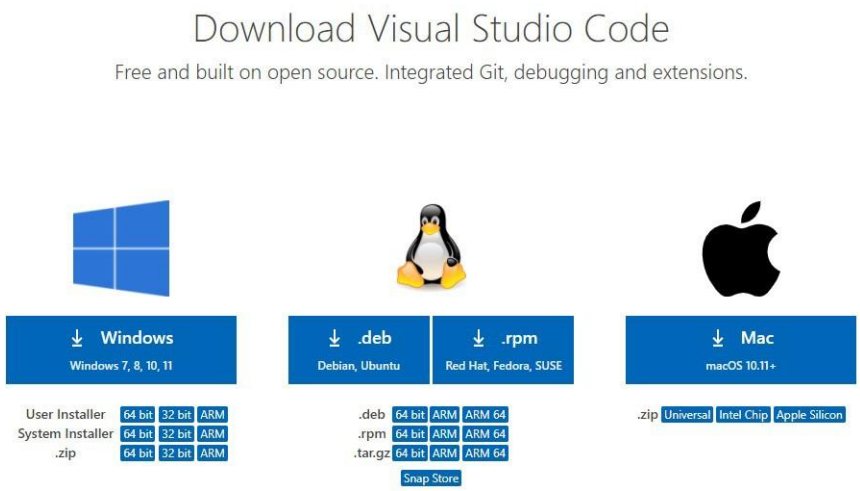
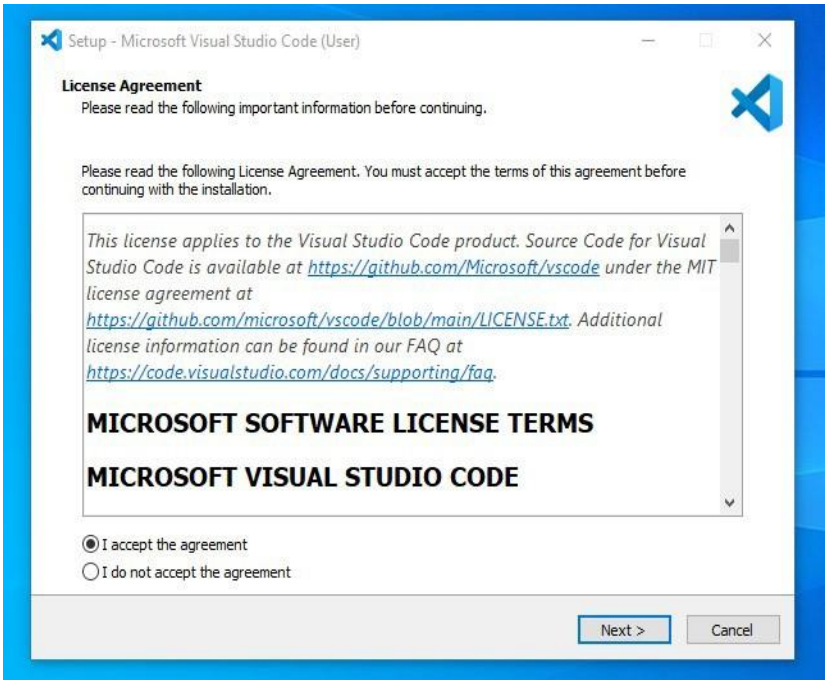
PRACTICAL NO: 02

Aim:-Steps to download visual studio

Step 1: **Visit the official website of the** Visual Studio Code **using any web browser like Google Chrome, Microsoft Edge, etc. and Press the "**Download for Windows**" button**



Step 2:When the download finishes, then the Visual Studio Code icon appears in the downloads folder. Click on the installer icon to start the installation process of the Visual Studio Code. After the Installer opens, it will ask you for accepting the terms and conditions of the Visual Studio Code. Click on and then clickthe button.



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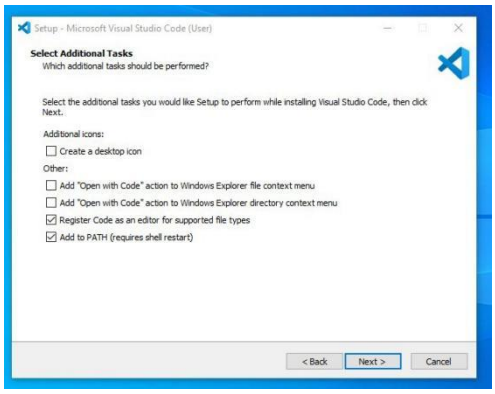
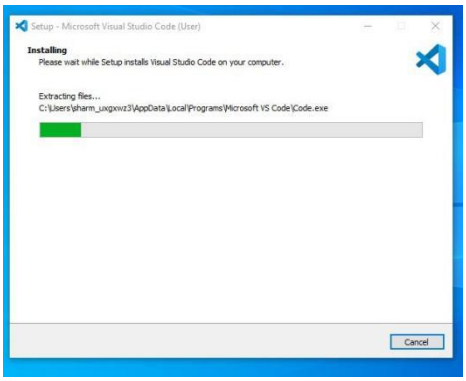
Step 3: **Choose the location data for running the Visual Studio Code. It will then ask you for browsing the location. Then click on** Next **button.**



Step 4: **Then it will ask for beginning the installing setup. Click on the** Install **button. After clicking on Install, it will take about 1 minute to install the Visual Studio Code on your device.**



Step 5: **After the Installation setup for Visual Studio Code is finished, it will show a window like this below. Tick the "**Launch Visual Studio Code**" checkbox and then click** Next**.**

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Step2: -

Node.js

```
Welcome to Node.js v18.17.1.
Type ".help" for more information.
> .help
.break    Sometimes you get stuck, this gets you out
.clear    Alias for .break
.editor   Enter editor mode
.exit     Exit the REPL
.help     Print this help message
.load     Load JS from a file into the REPL session
.save     Save all evaluated commands in this REPL session to a file

Press Ctrl+C to abort current expression, Ctrl+D to exit the REPL
>
```

Node.js

```
Welcome to Node.js v18.17.1.
Type ".help" for more information.
> .help
.break    Sometimes you get stuck, this gets you out
.clear    Alias for .break
.editor   Enter editor mode
.exit     Exit the REPL
.help     Print this help message
.load     Load JS from a file into the REPL session
.save     Save all evaluated commands in this REPL session to a file

Press Ctrl+C to abort current expression, Ctrl+D to exit the REPL
> 23+45
68
> 78-34
44
> 21*59
1239
> 783/4
195.75
```

- Console program using do while program (Multiline Expression):

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Node.js

```
Welcome to Node.js v18.17.1.
Type ".help" for more information.
> var x=0
undefined
> do{
... x++;
... console.log("x:"+x);
... }while(x<10);
x:1
x:2
x:3
x:4
x:5
x:6
x:7
x:8
x:9
x:10
undefined
>
```

- Call back function:

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Node.js

```
Welcome to Node.js v18.17.1.
Type ".help" for more information.
> const mess=function()
... {
... console.log("Hi Welcome to node.js");
... }
undefined
> setTimeout(mess,3000);
Timeout {
  _idleTimeout: 3000,
  _idlePrev: [TimersList],
  _idleNext: [TimersList],
  _idleStart: 89177,
  _onTimeout: [Function: mess],
  _timerArgs: undefined,
  _repeat: null,
  _destroyed: false,
  [Symbol(refed)]: true,
  [Symbol(kHasPrimitive)]: false,
  [Symbol(asyncId)]: 314,
  [Symbol(triggerId)]: 6
}
> Hi Welcome to node.js
>
```

- Arrow Call back function:

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Node.js

```
Welcome to Node.js v18.17.1.
Type ".help" for more information.
> setTimeout(()=>
... {
... console.log("Hi from arrow function");
... },4000);
Timeout {
  _idleTimeout: 4000,
  _idlePrev: [TimersList],
  _idleNext: [TimersList],
  _idleStart: 209558,
  _onTimeout: [Function (anonymous)],
  _timerArgs: undefined,
  _repeat: null,
  _destroyed: false,
  [Symbol(refed)]: true,
  [Symbol(kHasPrimitive)]: false,
  [Symbol(asyncId)]: 205,
  [Symbol(triggerId)]: 6
}
> Hi from arrow function
>
```

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PRACTICAL NO: 03

Aim:- Write an application to perform arithmetic operation.

Code:-

```
//Addition
function sum(a,d)
{
   return a+d;
}
s=sum(10,5);
console.log(s);
//Subtraction
function sub(b,f)
{
   return b-f;
}
su=sub(65,54);
console.log(su);
//Multiplication
function mul(c,e)
{
   return c*e;
}
m=mul(15,16);
console.log(m);
//Division
function div(g,h)
{
   return g/h;
}
d=div(150,5);
console.log(d);
```

Output:-

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p_3.js > sub

```
1   function sum(a,d)
2   {
3       return a+d;
4   }
5   s=sum(10,5);
6   console.log(s);
7   function sub(b,f)
8   {
9       return b-f;
10  }
11  su=sub(65,54);
12  console.log(su);
13  //Multiplication
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS D:\disha90> node p_3.js
15
11
240
30
PS D:\disha90>
```

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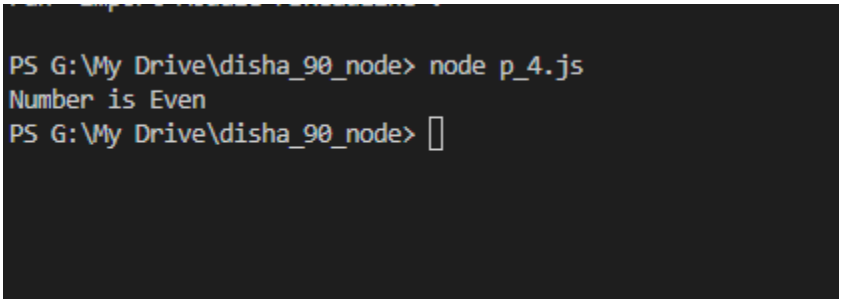
PRACTICAL NO: 04

Aim:- To determine whether a given number is even or odd in Node.js

Code:-

```
function displayresult(a) {
   console.log(a);
   }
   function check(num) {
   let sum = num;
   if (num % 2 == 0) {
   console.log("Number is Even")
   } else {
   console.log("Number is odd")
   }
   }
   check(18, displayresult)
```

Output:-



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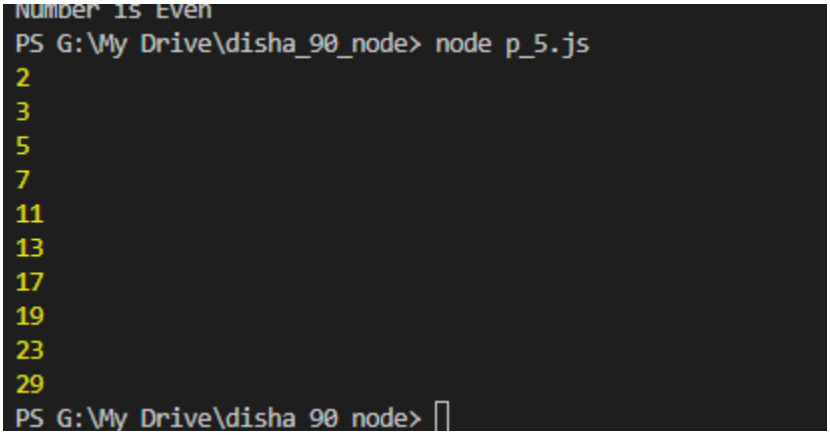
PRACTICAL NO: 05

Aim:-To print all prime numbers up to a given number in Node.js

Code:-

```
function isPrime(n)
{if(n==1||n==0) return false;
for(var i=2;i<n;i++){
if(n%i==0) return false;
} return true;
}
var num =30;
for(var i=1;i<=num;i++){
if(isPrime(i)){
console.log(i);
}
}
```

Output:-



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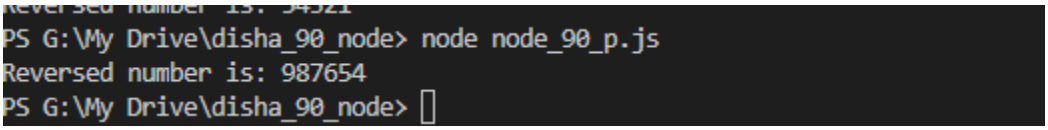
PRACTICAL NO: 06

Aim:-Create an application in NodeJS to reverse the given number and display it (Note: 5 digit number)

Code:-

```
var number=456789;
var reversedNumber = number.toString().split('').reverse().join('');
console.log('Reversed number is: ' + reversedNumber);
```

Output:-



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PRACTICAL NO: 07

Aim:- Create an application in Node.js to display Armstrong number 15

Code:-

```
function isArmstrongNumber(num) {
let sum = 0;
const strNum = String(num);
const len = strNum.length;
for (let i = 0; i < len; i++) {
sum += Math.pow(Number(strNum[i]), len);
}
return sum === num;
}
function printFirstNArmstrongNumbers(n) {
let count = 0;
let num = 1;
while (count < n) {
if (isArmstrongNumber(num)) {
console.log(num);
count++;
}
num++;
}
}
printFirstNArmstrongNumbers(15);
```

Output:-

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```
PS G:\My Drive\disha_90_node> node node_90_p.js
1
2
3
4
5
6
7
8
9
153
370
371
407
1634
8208
```

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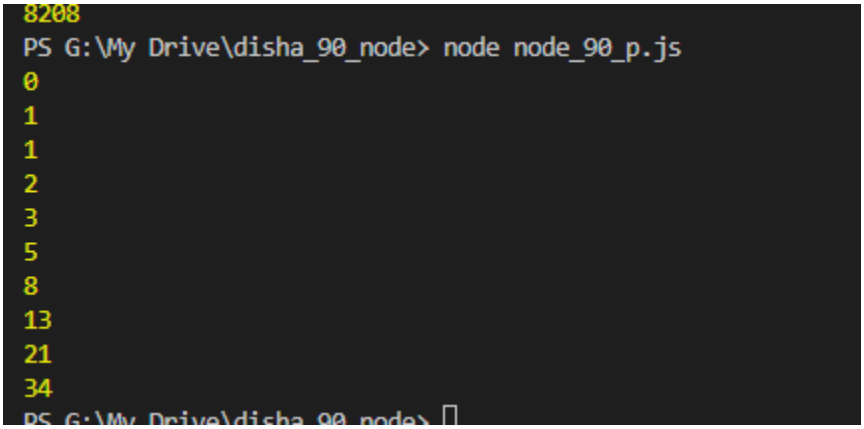
PRACTICAL NO: 08

Aim:-To generate the first 10 numbers in the Fibonacci sequence in Node.js

Code:-

```
var a=0;
var b=1;
var c;
console.log(a);
console.log(b);
for(i=0;i<8;i++)
{
c=a+b;
console.log(c);
a=b;
b=c;
}
```

Output:-



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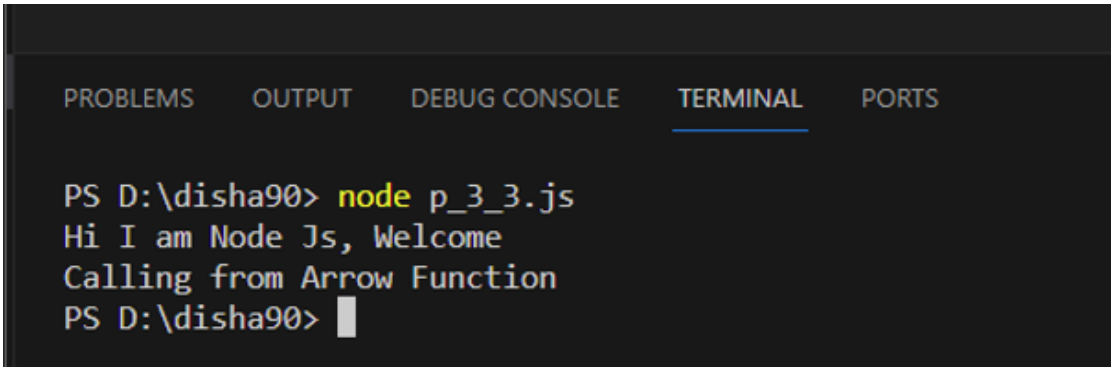
PRACTICAL NO: 09

Aim:-To demonstrate the use of setTimeout and arrow functions in Node.js

Code :-

```
const message = function(){
   console.log("Hi I am Node Js, Welcome");
}
setTimeout(message, 5000);
setTimeout(() => {
   console.log("Calling from Arrow Function");
},8000);
```

Output:-



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PRACTICAL NO: 10

Aim:-To demonstrate module exports in Node.js

Code:-

Step 1 :- Create a file “P6first.js” and write following code

```
//Addition
function add(a,b){
   return a+b;
}
exports.add=add;
//Subtraction
function sub(a,b){
   return a-b;
}
exports.sub=sub;
//Multiplication
function mul(a,b){
   return a*b;
}
exports.mul=mul;
//Division
function div(a,b){
   return a/b;
}
exports.div=div;
```

Step 2:- Create a file “p6firstmode.js” and write following code.

```
var req = require('./p6fist');
var res =req.add(26,3);
console.log("Addition:",res);
var res =req.sub(48,9);
console.log("Subtraction:",res);
var res =req.mul(90,3);
console.log("Multiplication:",res);
var res =req.div(589,5);
console.log("Division:",res);
```

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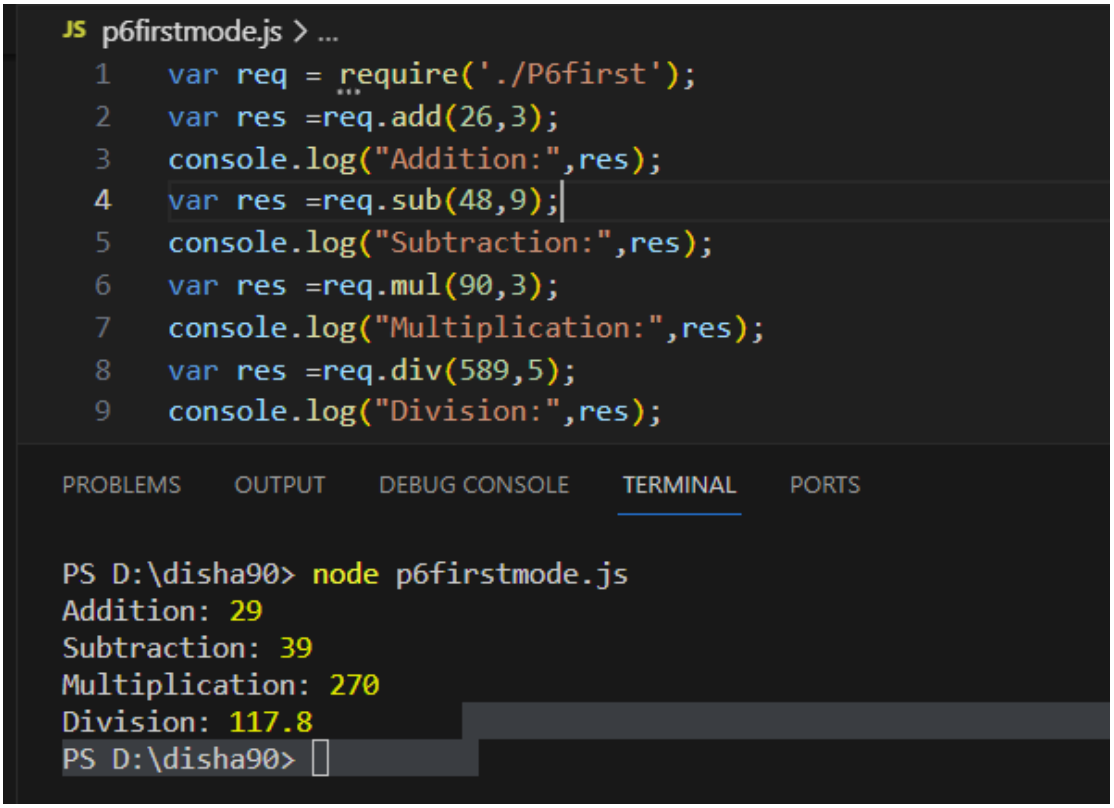
Output:-



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PRACTICAL NO: 11

Aim:-write an application to find area of circle, square, rectangle using module in Node.js

Code:-

Step 1:- Create a file “p7area.js” and write following code.

```
//SQUARE
function square(s){
   return s*s;
}
//RECTANGLE
function rectangle(l,b){
   return l*b;
}
//CIRCLE
function circle(r){
   return 3.14*r*r;
}
//EXPORT
exports.square=square;          //SQUARE
exports.rectangle=rectangle;   //RECTANGLE
exports.circle=circle;         //CIRCLE
```

Step 2:- Create a file “p7result.js” and write following code.

```
//IMPORT FILE
var req = require('./p7area.js');
var sRes, rRes, cRes;
//IMPORT MODULE
sRes=req.square(8);
rRes=req.rectangle(6,8);
cRes=req.circle(7);
//DISPLAY RESULT
console.log("square:",sRes);
console.log("rectangle:",rRes);
```

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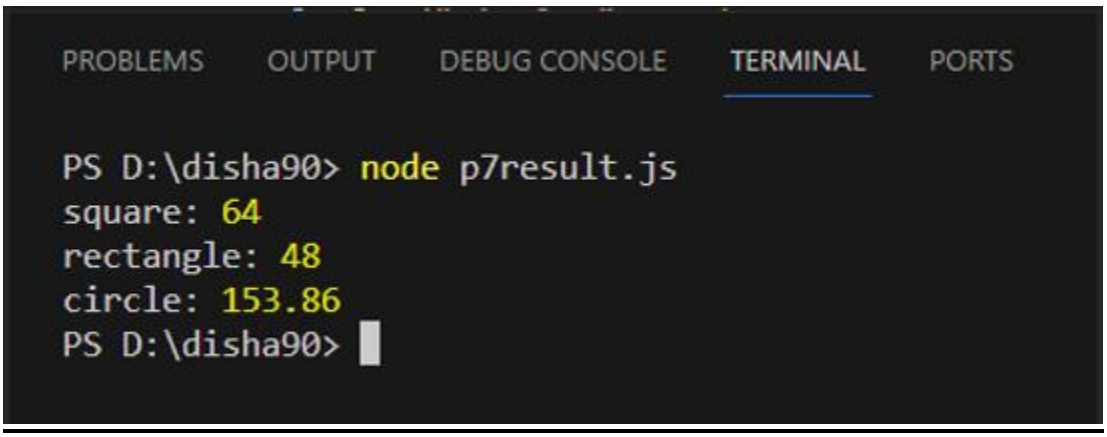
```
console.log("circle:",cRes);
```

Output :-



Name :-Disha Tanaji Mane

Roll No:-90 FYMCA Div:-B

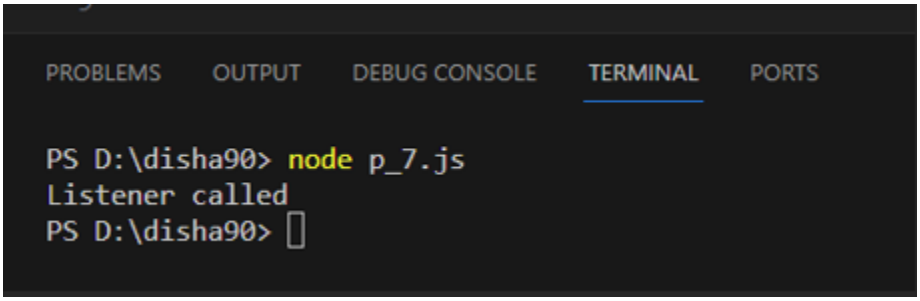
PRACTICAL NO: 12

Aim:-Write an application to demonstrate events module in Node.js

Code:-

```
const EventEmitter = require('events');
const emitter = new EventEmitter();
//Register
emitter.on('messageLogged',function () {
   console.log('Listener called');
});
//Raise
emitter.emit('messageLogged');
```

Output:



Name :-Disha Tanaji Mane

Roll No:-90 FYMCA Div:-B

PRACTICAL NO: 13

Aim:-write an application to demonstrate function (removeListner, listnerCount) in Node.js

Code:-

```
const events = require("events");
const eventEmitter = new events.EventEmitter();
function listner1(){
console.log("Event received by Listner 1");
}
function listner2(){
console.log("Event received by Listner2");
}
eventEmitter.addListener("Write",listner1);
eventEmitter.on("Write",listner2);
eventEmitter.emit("Write");
console.log(eventEmitter.listenerCount("write"));
eventEmitter.removeListener("write",listner1);
console.log("Listner1 is removed");
eventEmitter.emit("write");
console.log(eventEmitter.listenerCount("write"));
console.log("program Ended.....")
```

Output:-

```
PS D:\disha90> node p_9.js
Event received by Listner 1
Event received by Listner 2
2
Listner 1 is removed
Event received by Listner 2
1
Program Ended...
PS D:\disha90>
```

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Roll No:-90 FYMCA Div:-B

PRACTICAL NO: 14

Aim:- Create an application in nodejs to create Return Event Emitter.

Code:-

```
var emitter=require('events').EventEmitter;
function LoopProcessor(num){
   var e = new emitter();
   setTimeout(function(){
      for(var i=1;i<=num;i++){
         e.emit('BeforProcess',i);
         console.log('Processing number:'+i);
         e.emit('AfterProcess',i);
      }
   } , 2000)
   return e;
}
var lp = LoopProcessor(3);
lp.on('BeforeProcess',function(data){
   console.log('About to start the process for'+data);
});
lp.on('AfterProcess',function(data){
   console.log('Completed Processing+data');
});
```

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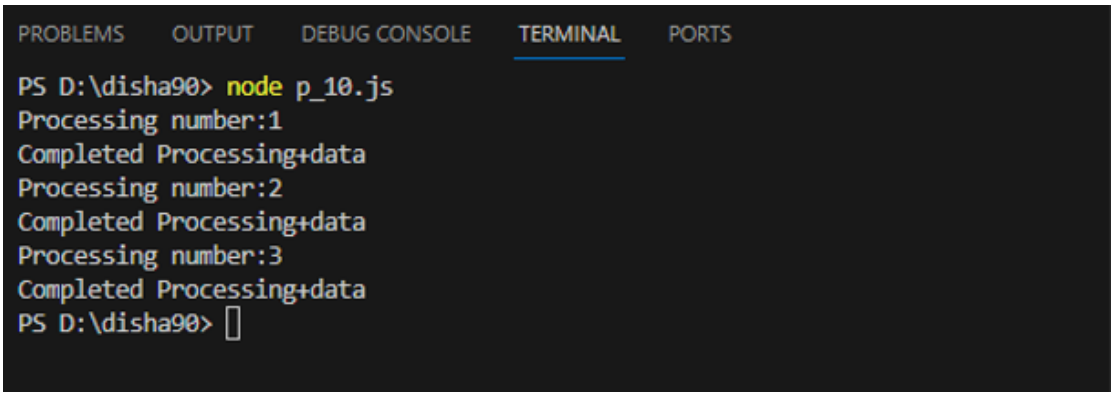
Output:-



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Roll No:-90 FYMCA Div:-B

PRACTICAL NO: 15

Aim:-create an application in node.js to create Extend Event Emitter in Node.js

Code:-

```
var emitter=require('events').EventEmitter;
var util = require('util');
function LoopProcessor (num) {
var me = this;
setTimeout(function(){
for (var i=1;i<=num;i++){
me.emit ('BeforeProcess',i);
console.log('processing number: '+i);
me.emit ('After Process',i);
}
}, 2000)
return this;
}
util.inherits (LoopProcessor, emitter)
var lp = new LoopProcessor (3);
lp.on('BeforceProcess', function(data) {
console.log('About to start the process for' + data);
});
lp.on('AfterProcess', function(data) {
console.log('completed processing '+ data);
});
```

Output:-

```
PS G:\My Drive\disha_90_node> node node_90_p.js
processing number: 1
processing number: 2
processing number: 3
PS G:\My Drive\disha_90_node>
```

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PRACTICAL NO: 16

Aim:- Write an event emitter code to design an event called as "calculate Salary" which is used to calculate the salary of an employee by passing some arguments like Basic Salary, HRA (20% of Basic), DA(100% of Basic), TA, and deductions like Income Tax (30% of Basic) and Professional Tax of 200.

Code:-

```
const EventEmitter = require('events');
class SalaryCalculator extends EventEmitter {
calculateSalary(basic, ta) {
const hra = 0.2 * basic; // HRA is 20% of Basic
const da = basic; // DA is 100% of Basic
const incomeTax = 0.3 * basic; // Income Tax is 30% of Basic
const professionalTax = 200; // Professional Tax is 200
const salary = basic + hra + da + ta - incomeTax - professionalTax;
this.emit('calculateSalary', salary);
}
}
const salaryCalculator = new SalaryCalculator();
salaryCalculator.on('calculateSalary', (salary) => {
console.log(`The calculated salary is: ${salary}`);
});
// Example usage:
salaryCalculator.calculateSalary(50000, 8000); // Basic Salary is 50000 and TA is
8000
```

Output:-

```
PS G:\My Drive\disha_90_node> node node_90_p.js
The calculated salary is: 102800
PS G:\My Drive\disha_90_node>
```

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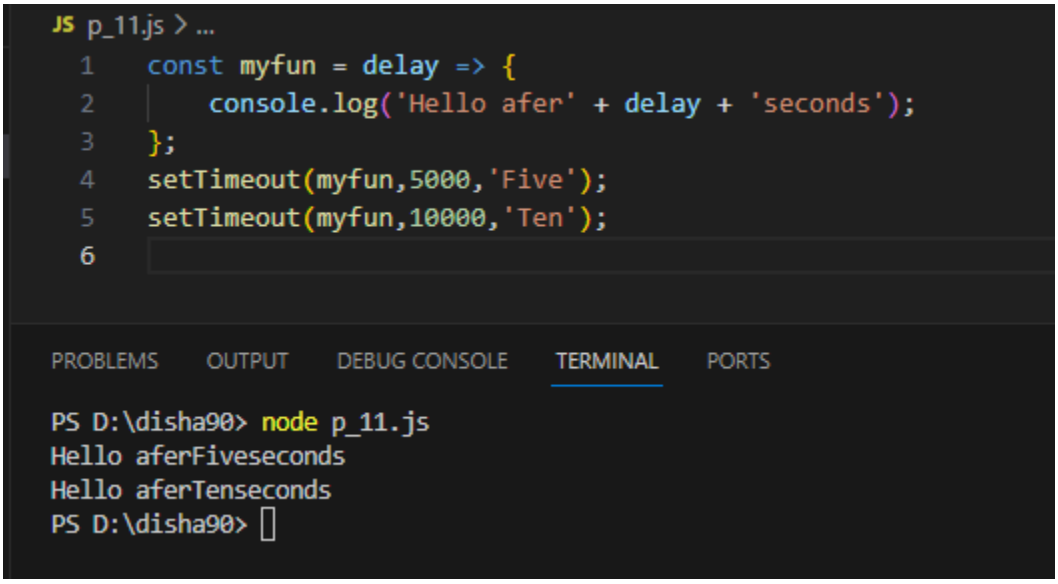
PRACTICAL NO: 17

Aim:- Create an application in nodejs to display message after 5 second & 10 second.

Code:-

```
const myfun = delay => {
   console.log('Hello afer' + delay + 'seconds');
};
setTimeout(myfun,5000,'Five');
setTimeout(myfun,10000,'Ten');
```

Output:-



Name :-Disha Tanaji Mane

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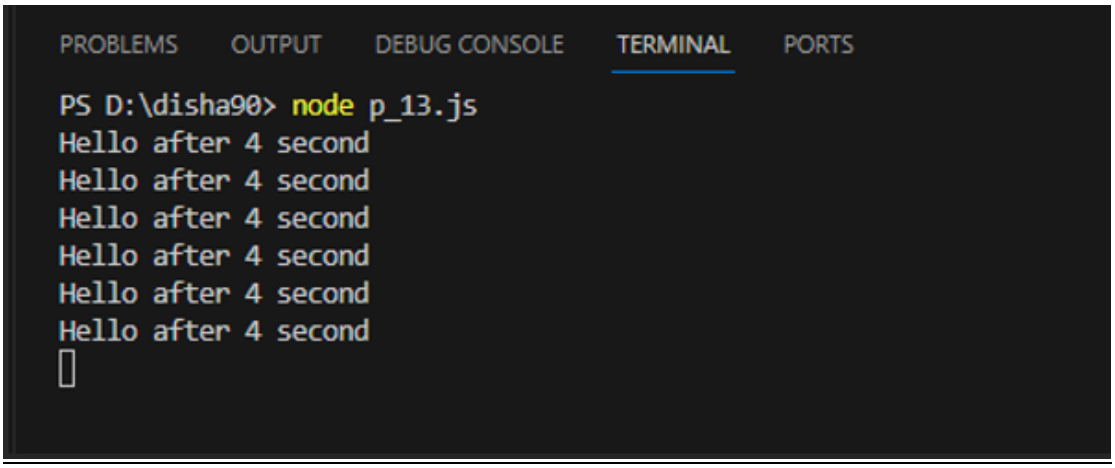
PRACTICAL NO: 18

Aim:- Create an application in nodejs to demonstrate set Interval Function.

Code:-

```
setInterval(
   ()=> console.log('Hello after 4 second'),4000
);
```

Output:-



Name :-Disha Tanaji Mane

Roll No:-90 FYMCA Div:-B

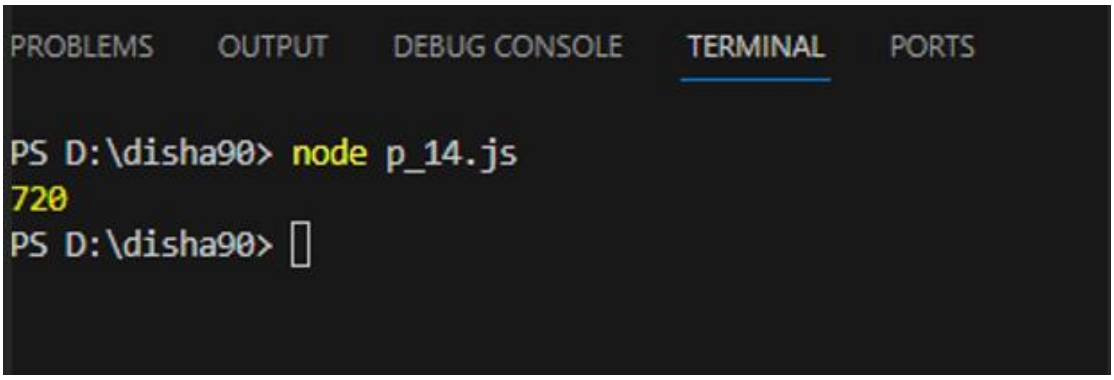
PRACTICAL NO: 19

Aim:- Create an application in nodejs to display factorial of a number

Code:-

```
function factorial(n){
   let i=n;
   let res =1;
   while (i>+1)
   {
      res=res * i;
      i--
   }
   return res;
}
const num = 6;
const result = factorial(num);
console.log(result);
```

Output:-



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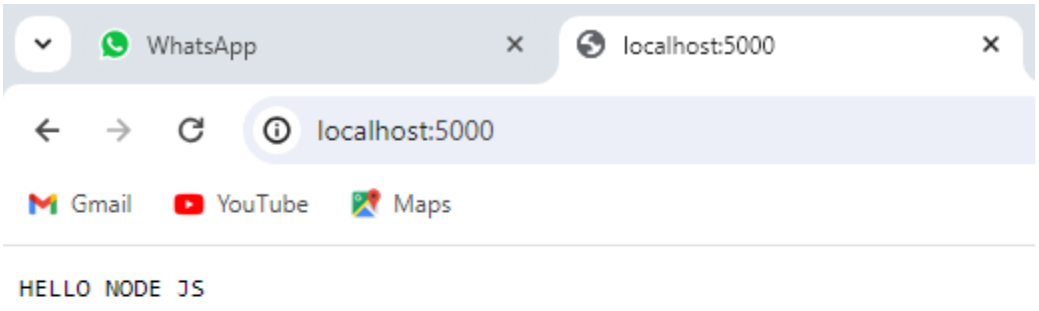
PRACTICAL NO: 20

Aim:- Write an application to create http server and Display message.

Code:-

```
var http = require('http');
var server = http.createServer(function(req,res){
   res.write("HELLO NODE JS");
   res.end();
});
server.listen(5000);
console.log('Node.js web serverat port 5000 is running...')
```

Output:-



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PRACTICAL NO: 21

Aim:- Write a Node.js code to display Employee Job Registration Form saved in an HTML file in response to the client's access request to the server.

Code:-

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

const fs = require('fs');

http.createServer((req, res) => {

fs.readFile('form.html', (err, data) => {

if (data) {

res.writeHead(200, { 'Content-Type': 'text/html' });

res.end(data);

}

});

}).listen(8080, () => {

console.log('Server is running at http://localhost:8080');

});
```

Output:-

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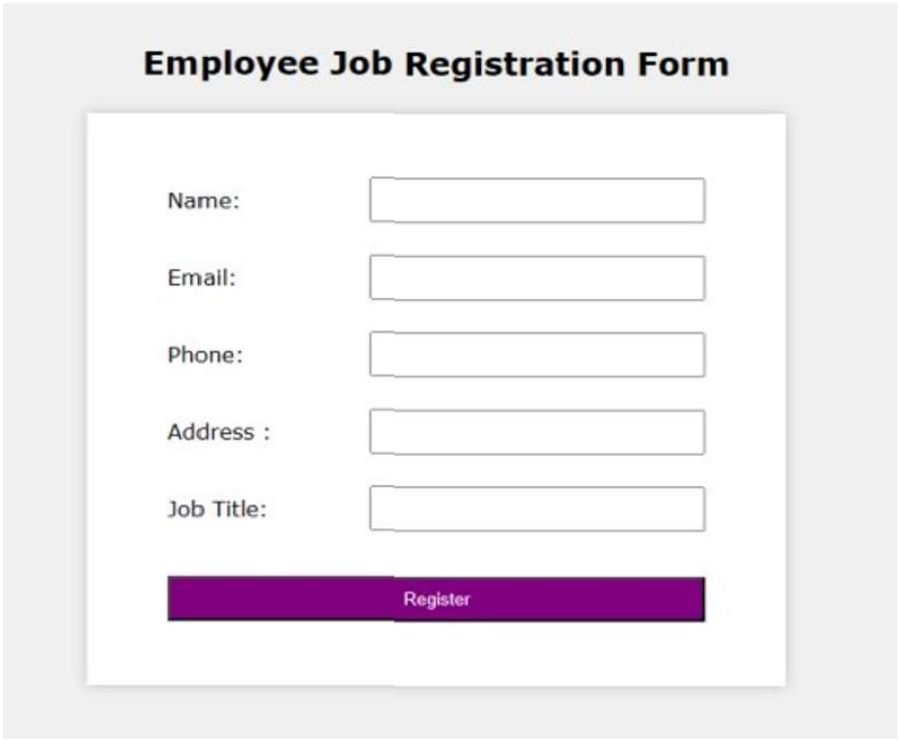

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PRACTICAL NO: 22

Aim:-Write as application to create Home page, Admin page and Student page using http server in Node.js.

Code:-

```
var http = require('http');

const{ text } = require('stream/consumers');

var server = http.createServer(function(req,res){ if(req.url=='/'){

res.writeHead(200,{'content-type':'text/html'});
res.write('<html></head><body>');

res.write('<style>ul li{display: inline-block; float: right; height: 40px;} ul li
a{padding: 20px; background:orange; color: white;}</style>');

res.write('<div><h1>My First Website</h1></div><div><ul><li><a
href="/admin">Contact Admin</a></li><li><a
href="/student">Student</a></li><li><a
href="/home">Home</a></li></ul></div></div>');

res.write('<div style="background: white; padding: 20px;"><h2>Start
Page</h2><p>This is my first webpage hehe!</p><p>Hi
everyone</p></div></body></html>');

res.end();

}

else if (req.url=='/home')

{

res.writeHead(200,{'content-type':'text/html'});

res.write('<html><head><style>body{padding-left: 43px; padding-right:43px;
background-color:lightyellow;} </style></head><body><p><h1>This is home
page</h1></p><h1>SIMS fymca</h1><h3>This page is a brief insight to who I
am.</h3>');
```

```
res.write('<nav style="background-color:black; text-align:center;"><ul><li><a
href="/">Start Page</a></li><li><a href="/student">Student</a></li><li><a
href="/admin">Admin</a></li></ul></nav></body></html>');


res.end();

}

else if (req.url=='/student')

{

res.writeHead(200,{'content-type':'text/html'});

res.write('<div style="display: inline-block; float: right; height: 40px; padding:
20px;"><ul><li><a href="/home">Home</a></li><li><a href="/">Start
Page</a></li><li><a href="/admin">Contact Admin</a></li></ul></div>');

res.write('<html><head><style>body{background-
color:pink;}</style><title>Form</title></head><body bgcolor="White" ><h1
align="center">Student Page Form</h1>');

res.write('<form action="url" method="post"><fieldset><legend>Personal
Imformation</legend>');

res.write('<lable><Strong>Student Name</strong></lable><br/><input
type="text" name="Student Name" placeholder="Enter Your Name" /><br/>');

res.write('<lable><Strong>Email</strong></lable><br/><input type="email"
name="eamil" placeholder="Enter Your Email Address" /></br>');

res.write('<lable><Strong>Password</strong></lable><br/>');

res.write('<input type="password" name="Password" placeholder="Enter Your
Password" /></br><lable><Strong>Gender</strong></lable><br/>');

res.write('<input type="Radio" name="Gender" value="Male" />Male <input
type="Radio" name="Gender" value="FeMale" />FeMale<br/>');

res.write('<lable><Strong>Hobbies</strong></lable><br/>');

res.write('<input type="checkbox" name="Hobbies" value="Playing
Sports"/>Playing Sports<br/>');
```

```
res.write('<input type="checkbox" name="Hobbies" value="Listening Music"/>Listening Music<br/>');

res.write(' <input type="checkbox" name="Hobbies" value="Traveling"/>Traveling<br/><input type="checkbox" name="Hobbies" value="Reading Books" />Reading Books<br/>');


res.write('<lable><Strong>Select Your City</strong></lable><select name="City">');

res.write('<option value="Ahemdabad">Ahemdabad</option><option value="Kalol">Kalol</option><option value="Surat">Surat</option>');

res.write(' <option value="Rajkot">Rajkot</option></select></br><input type="submit" onclick=alert("Thanks!") name="submit" value="Submit"/></form>');

res.end();

}

else if (req.url=='/admin')

{

res.writeHead(200,{'content-type':'text/html'});

res.write('<style>ul li{display: inline-block; float: right; height: 40px;} ul li a{padding: 20px; background:orange; color: white;}</style>');

res.write('<div><ul><li><a href="/admin">Contact Admin</a></li><li><a href="/student">Student</a></li><li><a href="/home">Home</a></li></ul></div></div><br><br>');

res.write('<html><head><style>legend{text-align:center;} body{background-color:faf89a;border: 5px solid darkred;} form{display: inline-block; float: center; padding: 20px;} ');

res.write('border-radius:4px; padding:40px 5px; max-width:100%;}</style></head>');
```

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Roll No:-90 FYMCA Div:-B

```
res.write('<legend><h1><u>Admin Login</u></h1></legend>'); res.write('<form action="#" method="POST" autocomplete="off">');

res.write('<div class="input_field"><h3>Username</h3></div><div class="input_field"><input type="text" ');

res.write('name="userid" placeholder="Username" required/></div>');

res.write('<div class="input_field"><h3>Password</h3></div><div class="input_field"><input type="Password"');

res.write('name="pword" placeholder="Password" required/></div><p>');


res.write('<style>button{border:none; border-radius:5px; text-align:center; padding:15px 15px; background-color:lavender;<div></div></style>');

res.write('<button onclick=alert("SUCESS")>LOGIN NOW</button></form>');
res.end();

}

else{

res.end('Invalid request');

}



});

server.listen(9000);

console.log('Node.js web server at port 9000 is running');
```

Output:-

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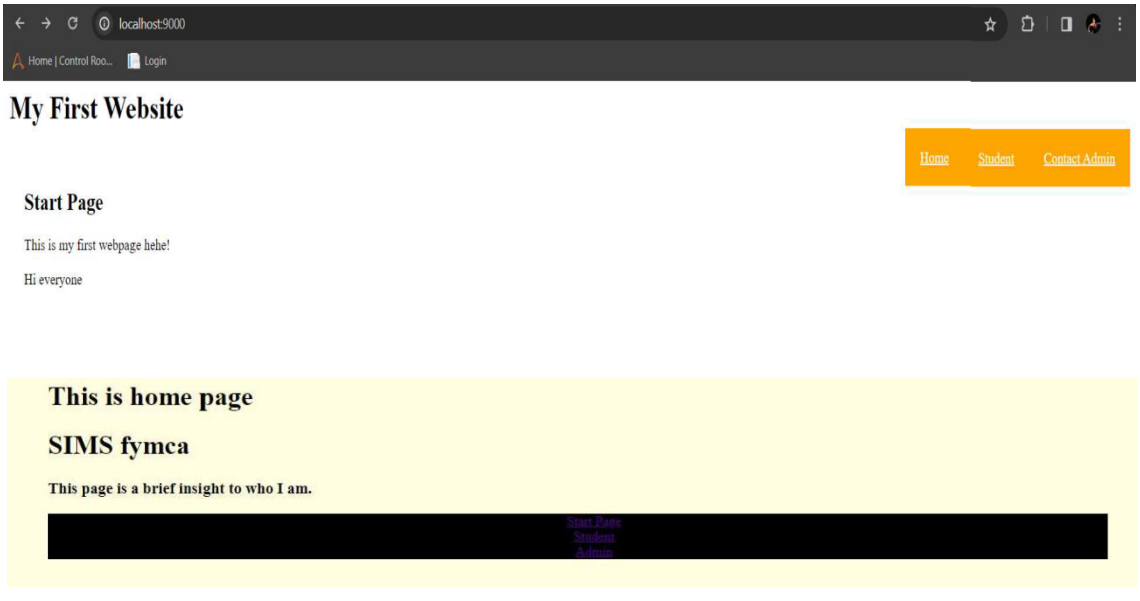
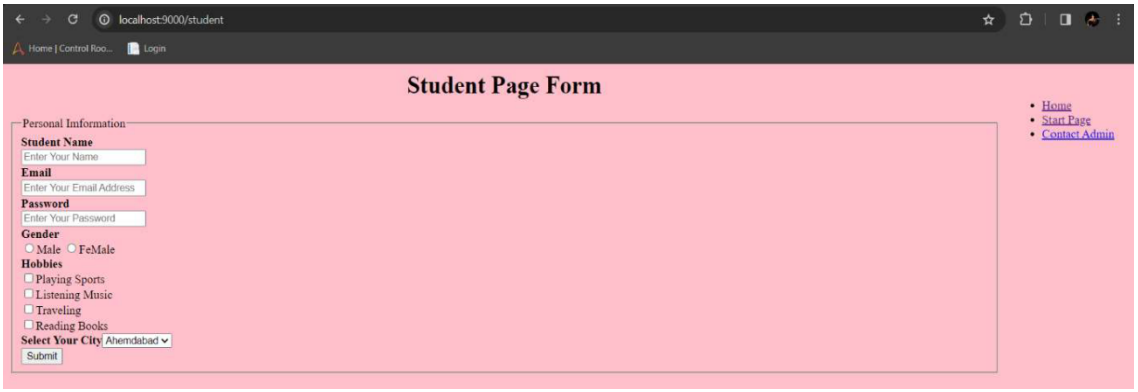
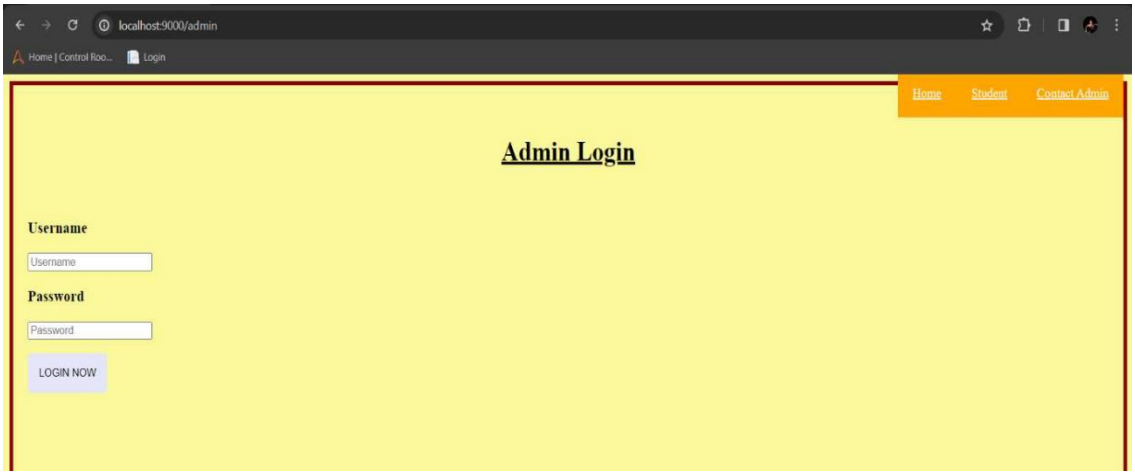
Roll No:-90 FYMCA Div:-B







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Roll No:-90 FYMCA Div:-B

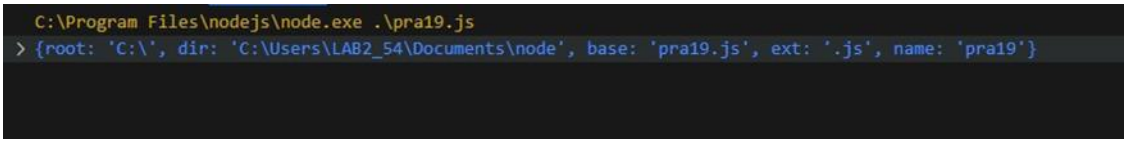
PRACTICAL NO: 23

Aim:-Write in application to display details of the current file path in Node.js.

Code:-

```
const location = require("path");

const localobj = location.parse(__filename);

console.log(localobj);
```

Output:-



Name :-Disha Tanaji Mane

Roll No:-90 FYMCA Div:-B

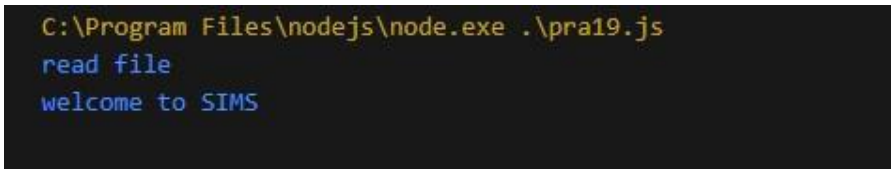
PRACTICAL NO: 24

Aim:-Write an application to read file in Node.js.

Code:-

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

fs.readFile("_txt.txt",'utf8',function(err,data)

{

console.log("Reading File");

console.log(data);

});
```

Output:-



Name :-Disha Tanaji Mane

Roll No:-90 FYMCA Div:-B

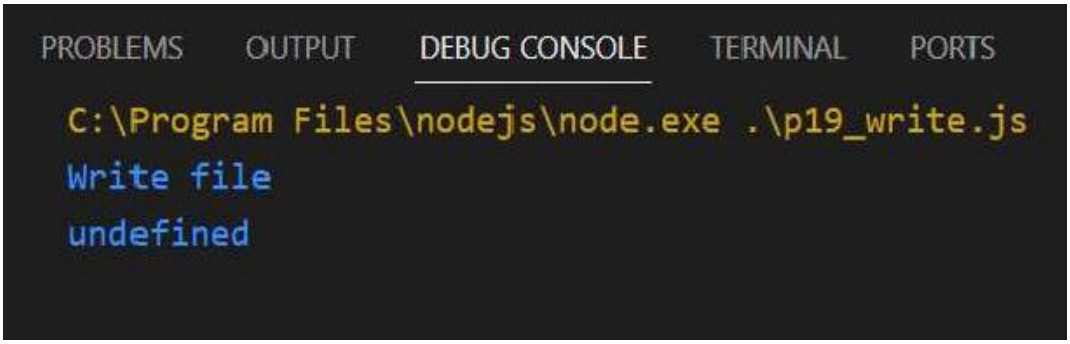
PRACTICAL NO: 25

Aim:-Write an application to write in file in Node.js.

Code:-

```
const fs = require("fs");

fs.writeFile("_txt.txt",'Welcome to the live stream',function (err,data)

{

console.log("Writing File");

});
```

Output:-



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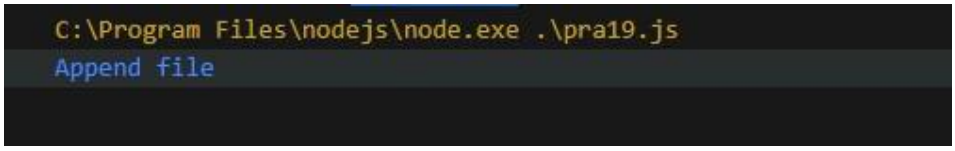
PRACTICAL NO: 26

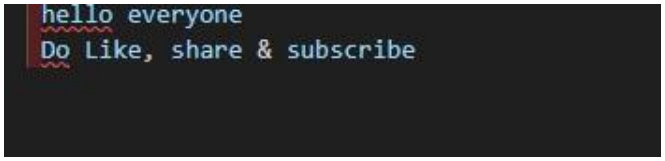
Aim:- Write an application to add data in file in Node.js.

Code:-

```
const fs = require("fs");
fs.appendFile("_txt.txt","\nHello Everyone \nLet's play agian",
function (err,data){
console.log("append file");
});
```

Output:-





Name :-Disha Tanaji Mane

Roll No:-90 FYMCA Div:-B

PRACTICAL NO: 27

Aim:-Write an application to delete a file in Node.js.

Code:-

```
const fs=require("fs");
fs.unlink("welcome.js",function(err,data)
{
console.log("Deleting file");
console.log("File DeletdSuccecdwr");
});
```

Output:-

```
[Running] node "c:\Users\LAB2_54\Documents\node\pra19.js"
Deleting file
File Deleted
```

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Roll No:-90 FYMCA Div:-B

PRACTICAL NO: 28

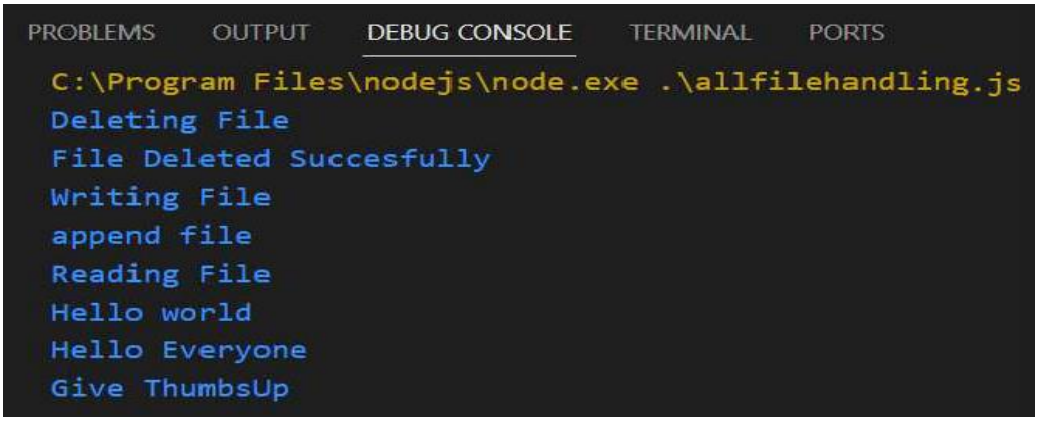
Aim:-Combine Read,Write,Append and Delete files in one node js program.

Code:-

```
const fs = require("fs");
fs.writeFile("_com.txt",'Helloworld',function
(err,data)
{   console.log("Writing File");
});  fs.appendFile("_com.txt","\nHello Everyone
\nGiveThumbsUp",function (err,data) {

console.log("append file");
});  fs.readFile("_com.txt",'utf8',function(err,data)
{   console.log("Reading File");
console.log(data);
});   fs.unlink("_com.txt",function(err,data)
{   console.log("Deleting File");
console.log("File Deleted
Succesfully");
});
```

Output:-



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Roll No:-90 FYMCA Div:-B

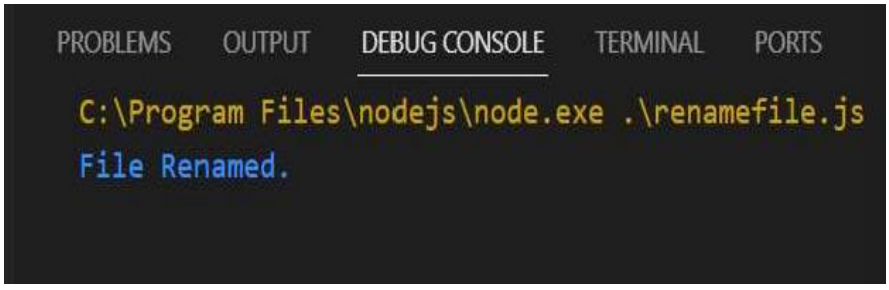
PRACTICAL NO: 29

Aim:-write an application to rename a file.

Code:-

```
var fs = require('fs');
fs.rename('snake.js','newName.js', function (err) {
if(err) throw err; console.log('File Renamed.');
});
```

Output:-



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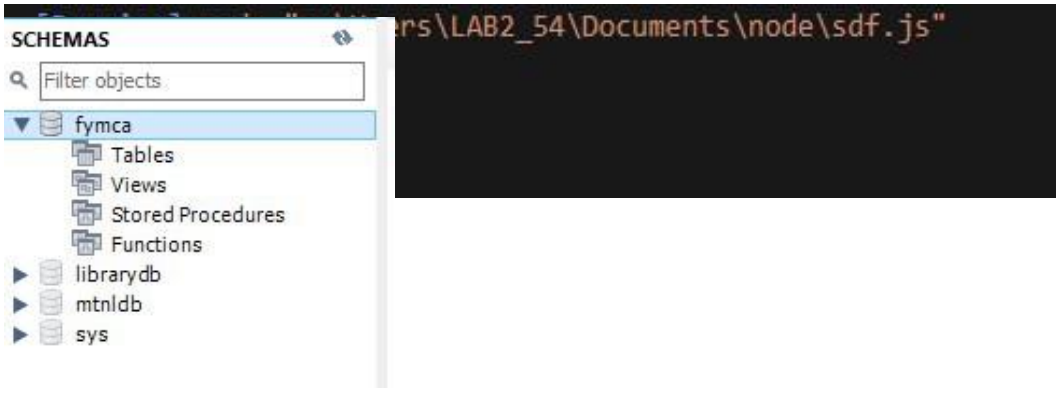
PRACTICAL NO: 30

Aim:-Create an application to create database I nodejs.

Code:-

```
my=require("mysql");
con=my.createConnection({
host:"localhost", user:"root",
password:"12345"
});
con.connect(function(err)
{
    if (err)throw err;
con.query("create database fymca",function(err)
{
console.log("databse created");
});
});
```

Output:-



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PRACTICAL NO: 31

Aim:-Create an Application to create Student table with columns Name , roll no , class , contact in Node.js.

Code:-

```
my=require("mysql");
con=my.createConnection({
host:"localhost", user:"root",
password:"12345"
database:"fymca"
});
con.connect(function(err)
{
    if(err)throw err
{
con.query("create table student(name varchar(20),roll int ,class
varchar(30),contact varchar(10))",function(err)
{
    if (err){
    console.log(err);
      }
 console.l
    og("
  Student
    table
created in
 database
  abc" );
```

```
    });
}
```

Output:-

```
[Running] node "c:\Users\LAB2_54\Documents\node\pra19.js"
Student table created in database fymca
```

Name :-Disha Tanaji Mane

Roll No:-90 FYMCA Div:-B

PRACTICAL NO: 32

Aim:-Create an application to insert rows into student table in Nodejs.

Code:-

```
my=require("mysql");
con=my.createConnection
({ host:"localhost",
user:"root",
password:"12345"
database:"fymca"
});
con.connect(function(err)
{
   if(err)throw err
   {
con.query("insert into student values('satyam',59,'mca')",function(err)
      {
console.log("data inserted");
      });
   }
});
```

Name :-Disha Tanaji Mane

Roll No:-90 FYMCA Div:-B

Output:-

```
[Running] node "c:\Users\LAB2_54\Documents\node\dsghg.js"
data inserted
```

	name	roll	class	contact
▶	xyz	159	mca	8099554466

Name :-Disha Tanaji Mane

Roll No:-90 FYMCA Div:-B

PRACTICAL NO: 33

Aim:-Create an application to display rows from student table in Nodejs.

Code:

```
my=require("mysql");
con=my.createConnection
({ host:"localhost",
user:"root",
password:"12345"
database:"fymca"
});
con.connect(function(err)
{
if(err)throw err
   {
con.query("select * from student",function(err,result)
      {

         console.log(result);

      })
  } ;
});
```

Output:-

Name :-Disha Tanaji Mane

Roll No:-90 FYMCA Div:-B

```
[Running] node "c:\Users\LAB2_54\Documents\node\dthb.js"
[
  RowDataPacket {
    name: 'xyz',
    roll: 159,
    class: 'mca',
    contact: '8099554466'
  }
]
```

PRACTICAL NO: 34

Aim:-Create an application to Update rows into student table in Nodejs.

Code:-

```
my=require("mysql");
con=my.createConnection
({ host:"localhost",
user:"root",
password:"12345"
database:"fymca"
});
con.connect(function(err)
{
   if(err)throw err
   {
con.query("Update student set roll=59 where
name='satyam'",function(err,result)
      {
console.log("Data Updated");
         console.log(result);
      });
   }
});
```

Output:-

```
[Running] node "c:\Users\LAB2_54\Documents\node\dgvbtye.js"
Data Updated
OkPacket {
  fieldCount: 0,
  affectedRows: 1,
  insertId: 0,
  serverStatus: 34,
  warningCount: 0,
  message: '(Rows matched: 1  Changed: 0  Warnings: 0',
  protocol41: true,
  changedRows: 0
}
```

	name	roll	class	contact
▶	xyz	159	mca	8099554466

PRACTICAL NO: 35

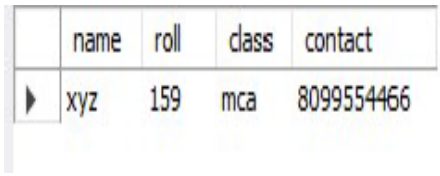
Aim:-Create an application to update mobile number of student name=”xyz” into student table in Nodejs.

Code:-

```
my=require("mysql");
con=my.createConnection
({ host:"localhost",
user:"root",
password:"12345"
database:"fymca"
});
con.connect(function(err)
{
  if(err)throw err
  {
con.query("Update student set contact=9321483781 where
name='satyam'",function(err)
    {
console.log("Data Updated");
    });
con.query("select * from student",function(err,result)
    {
      console.log(result);
    });
  }
```

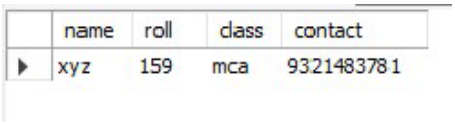
Output:-

Before update



	name	roll	class	contact
▶	xyz	159	mca	8099554466

After update



	name	roll	class	contact
▶	xyz	159	mca	9321483781

PRACTICAL NO: 36

Aim:-Create an application to add columns into student table in Nodejs.

Code:-

```
my=require("mysql");
con=my.createConnection
({ host:"localhost",
user:"root",
password:"12345"
database:"fymca"
});
con.connect(function(err)
{
   if(err)throw err
   {
con.query("Alters table student add contact varchar(10)",function(err)
      {
console.log("Table Altered and colunm added");
      });
   }
});
```

Output:-

```
[Running] node "c:\Users\LAB2_54\Documents\node\dgvbtye.js"
Table Altered and colunm added
```

	name	roll	class	contact	gender
▶	xyz	159	mca	9321483781	NULL

PRACTICAL NO: 37

Aim:- Create an application to Delete record from student table in Nodejs.

Code:-

```
my=require("mysql");
con=my.createConnection
({ host:"localhost",
user:"root",
password:"12345"
database:"fymca"
});
con.connect(function(err)
{
   if(err)throw err
   {
con.query("Delete from student where roll=59",function(err)
      {
console.log("Record delted from table !!!");
      });
   }
});
```

Output:-

```
[Running] node "c:\Users\LAB2_54\Documents\node\dgvbtye.js"
Record delted from table !!!
```

Before Deleting

	name	roll	class	contact	gender
	abc	150	mca	9988776655	M
	pqr	160	mca	9955661122	F
▶	xyz	159	mca	8879785544	M

After Deleting

▶	abc	150	mca	9988776655	M
	pqr	160	mca	9955661122	F

Practical No.1

Aim:-Create an application in angular js to demonstrate arithmetic operations and list.

Code:-

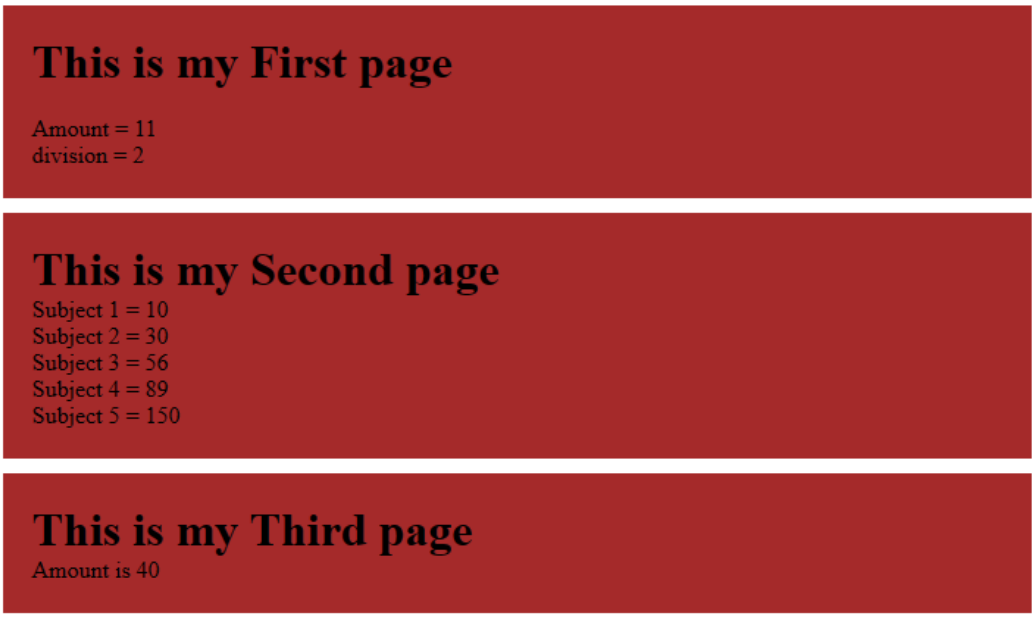
```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>AN 01</title>
    <script src="angular.min.js"></script>
    <style>
        *{
            margin: 0;
            padding: 0;
            box-sizing: border-box;
        }

        body {
            padding: 20px 0;
            display: flex;
            flex-direction: column;
            align-items: center;
            justify-content: center;
            gap: 10px;
        }
        div {
            width: 700px;
```

```
            display: flex;
            flex-direction: column;
            padding: 20px;
            background-color: aqua;
        }

    </style>
</head>
<body ng-app="">

    <div>
        <h1>This is my First page </h1>
        <br> Amount = {{2+3}} <br> division = {{10/5}}
    </div>

    <div ng-init="marks=[60,70,80,90,100]">
        <h1>This is my Second page </h1>
        Subject 1 = {{marks[0]}} <br>
        Subject 2 = {{marks[1]}} <br>
        Subject 3 = {{marks[2]}} <br>
        Subject 4 = {{marks[3]}} <br>
        Subject 5 = {{marks[4]}} <br>
    </div>

    <div ng-init="people=2; reg=20">
        <h1>This is my Third page </h1>
        Amount is {{people*reg}}
    </div>
```

</body>

</html>

Output :-



Practical 2

Aim:-Create an application in angular js to calculate registration fees if the number of people and registration amount is given by the user

Code:-

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>AN 02</title>
    <style>
        *{
            margin: 0;
            padding: 0;
            box-sizing: border-box;
        }
        body {
            padding: 20px 0;
            display: flex;
            flex-direction: column;
            align-items: center;
            justify-content: center;
            gap: 10px;
        }
        div {
            width: 700px;
            display: flex;
            flex-direction: column;
            padding: 20px;
            background-color: aqua;
        }
        input {
```

```
        padding: 10px 20px;
    }
</style>
  <script src="angular.min.js"></script>
</head>
<body ng-app>
  <div>
    <h1>Calculate </h1>
    Enter the number of Poeple <input type="number" ng-model="pop">
    Enter the reg fess <input type="number" ng-model="rege">
    Charges = {{pop*rege}}
  </div>
</body>
</html>
```

Output:-

Practical 3

Aim:-Create an application in angular js to calculate simple interest take appropriate input from the user

Code:

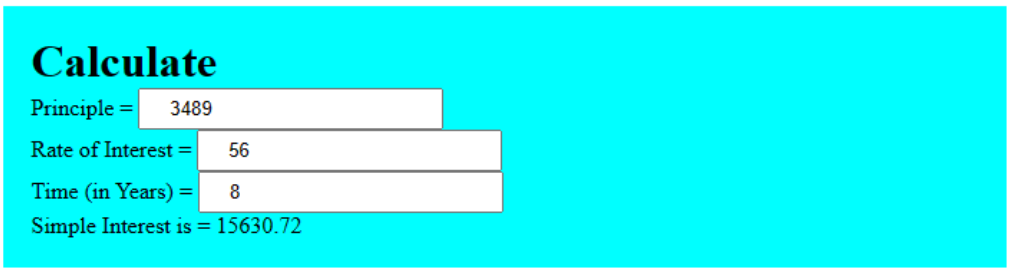
```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>AN 03</title>

    <style>
        *{
```

```
            margin: 0;
            padding: 0;
            box-sizing: border-box;
        }

        body {
            padding: 20px 0;
            display: flex;
            flex-direction: column;
            align-items: center;
            justify-content: center;
            gap: 10px;
        }
        div {
            width: 700px;
            display: flex;
            flex-direction: column;
            padding: 20px;
            background-color: aqua;
        }
        input {
            padding: 5px 20px;
        }

    </style>
    <script src="angular.min.js"></script>
</head>
<body ng-app>
```

```
    <div>
        <h1>Calculate </h1>
        <span>Principle = <input type="number" ng-model="prin"></span>
        <span>Rate of Intrest = <input type="number" ng-model="roi"></span>
        <span>Time (in Years) = <input type="number" ng-model="t"></span>

        <span>Simple Inrest is = {{(prin*roi*t)/100}}</span>
    </div>
</body>
</html>
```

Output:-

ac_2.html



Practical 4

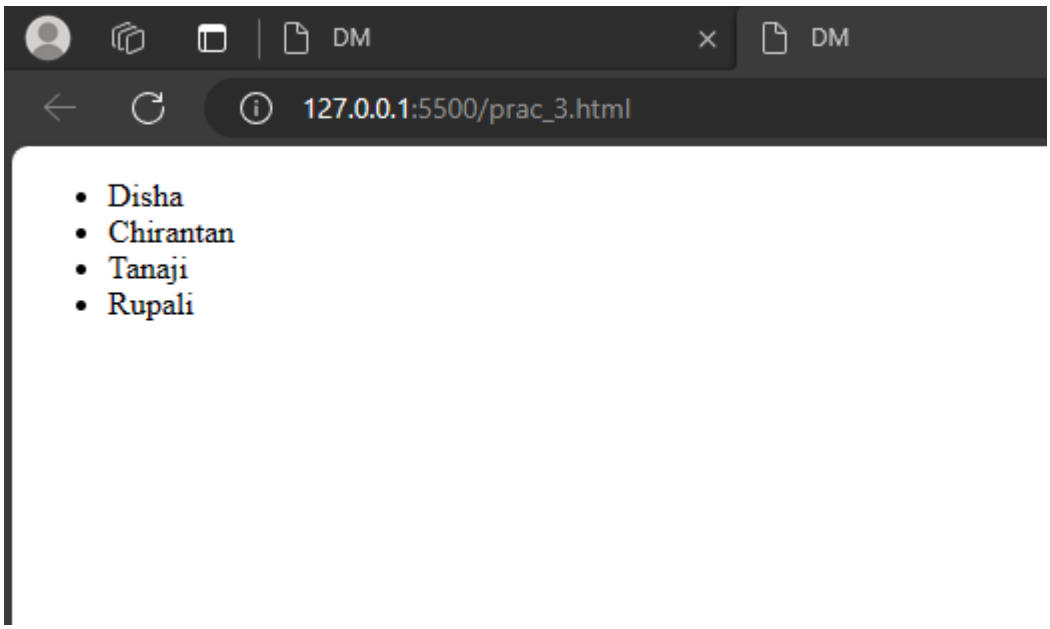
Aim:-Write an application in angular js to create an array of names and display all the names which has letter “i” using controller

Code:-

```
<!DOCTYPE html>

<html lang="en">


<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>AN 02</title>
    <script src="angular.min.js"></script>
</head>


<body>
    <div ng-app="myApp" ng-controller="namesCtrl">
        <ul>
            <li ng-repeat="x in names|filter:'i'">{{x}}</li>
        </ul>
    </div>
    <script>
        angular.module("myApp", []).controller("namesCtrl", function ($scope) {
            $scope.names = ["Disha",
            "Chiranatan",
            "Rupali",
            "Tanji",
            "Mane",
```

```
            "Shreesha",
            "Mane"
            ];
        });
    </script>
</body>
</html>
```

Output:-



Practical 5

Aim:-Create an application in angular js to demonstrate the use of filters in angular js

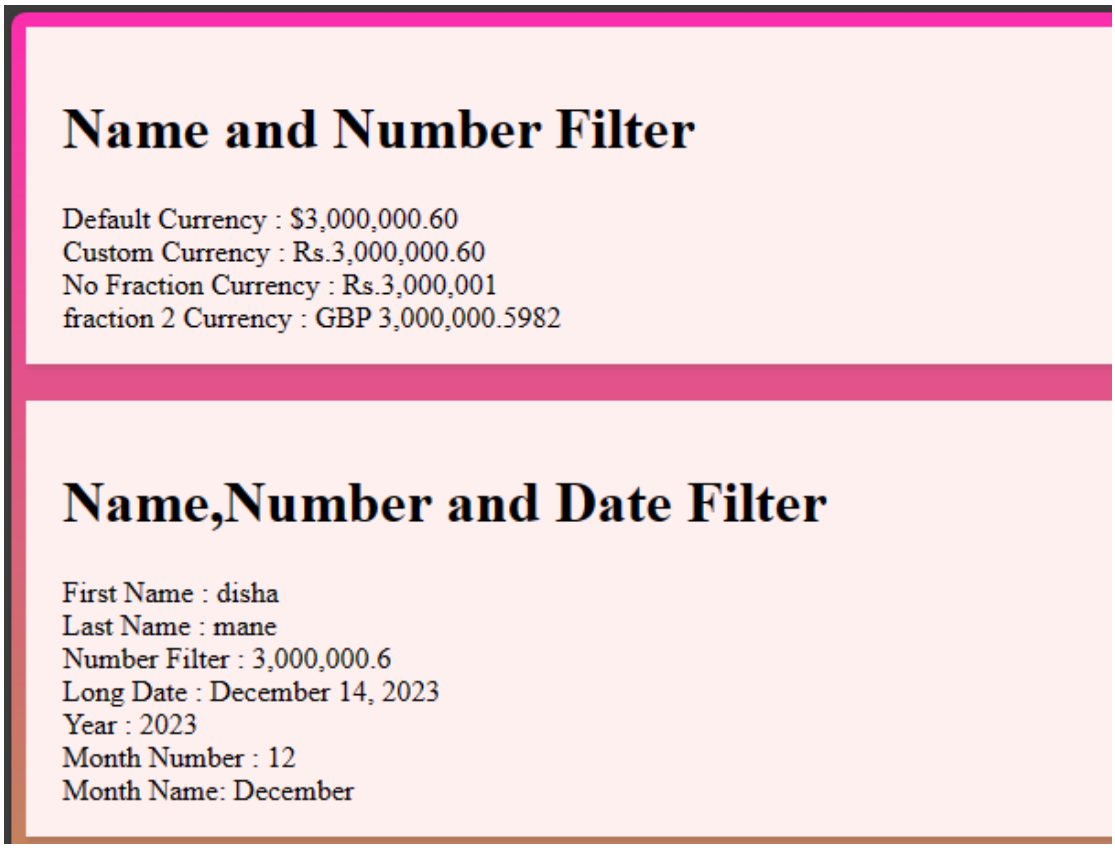
Code:-

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>AN 04</title>
    <script src="angular.min.js"></script>
    <style>
        div {
            box-shadow: 2px 2px 2px 1px rgba(0, 0, 0, 0.2);
            padding: 16px 20px;
            background-color: aliceblue;
        }
        body {
            display: flex;
            flex-direction: column;
            gap: 20px;
            background: rgb(34, 193, 195);
            background: linear-gradient(0deg, rgba(34, 193, 195, 1) 0%, rgba(253, 187, 45, 1) 100%);
        }
    </style>
</head>
<body ng-app="myApp" ng-controller="myController">
```

```
<div>
   <h1>Name and Number Filter </h1>
   Default Currency : {{person.salary|currency}} <br />
   Custom Currency : {{person.salary|currency:'Rs.'}} <br />
   No Fraction Currency : {{person.salary|currency:'Rs.':0}} <br />
   <!-- fraction 2 Currency : {{person.salary|currency:'GBP':2}} <br/> -->
   fraction 2 Currency : <span ng-bind="person.salary|currency:'GBP ':4"></span>
</div>
<div>
   <h1>Name,Number and Date Filter </h1>
   First Name : {{person.firstName|lowercase}} <br />
   Last Name : {{person.lastName|lowercase}} <br />
   Number Filter : {{person.salary|number:1}} <br />
   Long Date : {{DOB|date:'longDate'}} <br />
   Year : {{DOB|date:'yyyy'}} <br />
   Month Number : {{DOB|date:'MM'}} <br />
   Month Name: {{DOB|date:'MMMM'}} <br />
</div>
<div>
   <h1>Limit Filter</h1>
   Limit to get elements from Beginning :{{limitarr|limitTo:3}} <br />
   Limit to get elements from Ending :{{limitarr|limitTo:-3}} <br />
   Limit to get elements from String :{{limitarr|limitTo:4}} <br />

   <ul>
      <li ng-repeat="x in limitarr | orderBy">{{x}}</li>
   </ul>
```

```
    </div>
    <script>
        var myApp = angular.module("myApp", []);
        myApp.controller("myController", function ($scope) {
            $scope.person = { firstName: 'Raj', lastName: 'Bond', salary: 1000000.6750 };
            $scope.DOB = new Date();
            $scope.limitarr = [20, 10, 43, 5, 1, 4, 6]
        });
    </script>
</body>
</html>
```

Output:-



Limit Filter

Limit to get elements from Beginning :[20,10,43]
Limit to get elements from Ending :[1,4,6]
Limit to get elements from String :[20,10,43,5]

- 1
- 4
- 5
- 6
- 10
- 20
- 43

Roll No:-90
FYMCA Div:-B

Practical 6

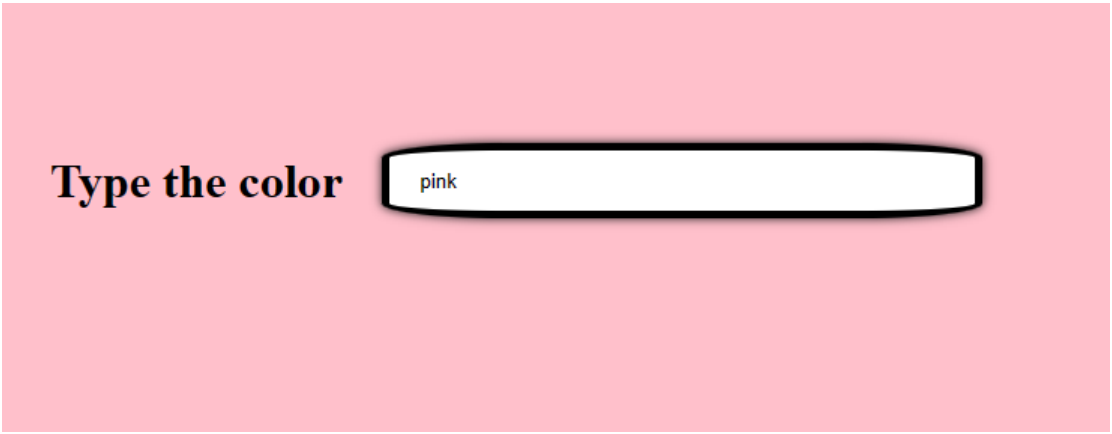
Aim:-Create an application in angular js to change the background color as the user changes input in the text box

Code:-

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>DM</title>
</head>
<style>
*{
    margin: 0;
    padding: 0;
    box-sizing: border-box;
}
body{
    height: 100vh;
    display: flex;
    justify-content: center;
    align-items: center;
}
input{
    margin: 2em;
    width: 30em;
    height: 3em;
    padding: 20px;
    border: .4em solid black;
```

```
    border-radius: 20%;
    cursor: pointer;
    box-shadow: 0 0 .5em #111;
}
</style>
<body>
    <h1 class="head"> Type the color </h1>
    <!-- <input type="color" id="clr"> -->
    <input type="text" id="clr">
</body>
<script>
const bgclr = document.getElementById("clr");
const headingg = document.querySelector(".head");
bgclr.addEventListener("input", () => {
document.body.style.backgroundColor = bgclr.value;
});
</script>
</html>
```

Output:-



Practical 7

Aim:-Create an application in angular js to demonstrate to display text in alert box

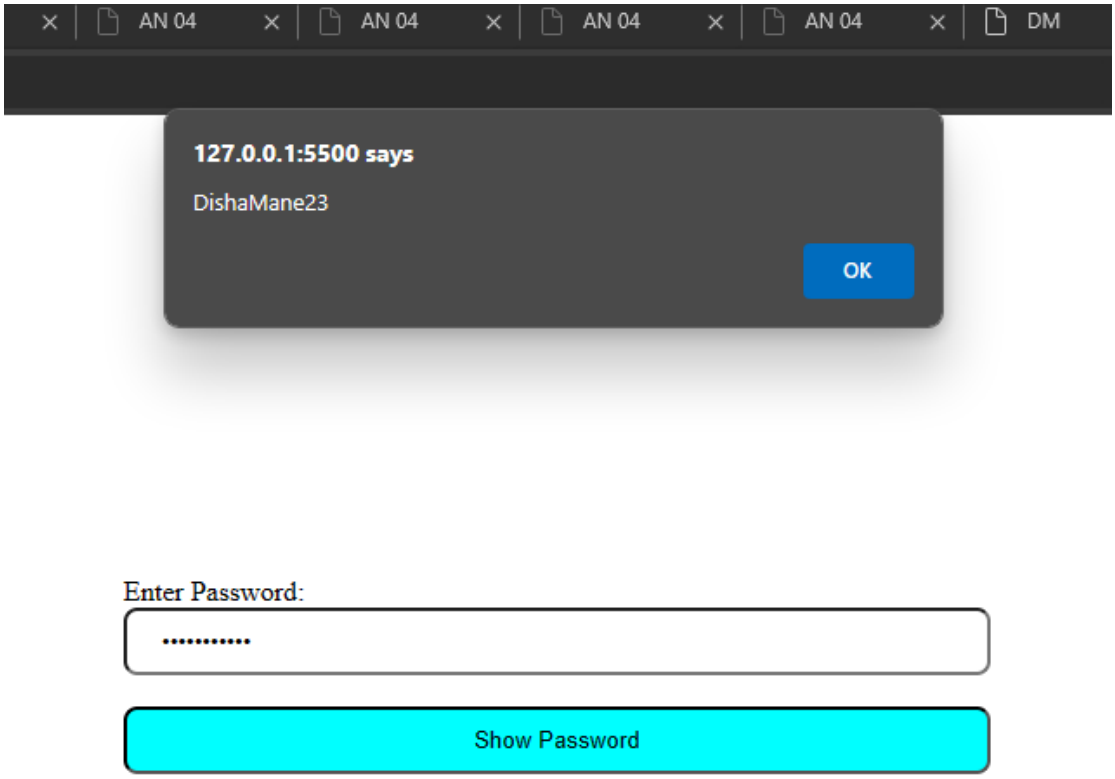
Code:-

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>AN 05</title>
    <script src="angular.min.js"></script>
    <style>
        *{
            margin: 0;
            padding: 0;
            box-sizing: border-box;
        }
        body{
            display: flex;
            align-items: center;
            justify-content: center;
            height: 100vh;
        }
        button {
            padding: 10px 20px;
            background: aqua;
            border-radius: 8px;
```

```
        }
        input{
            padding: 10px 20px;
            border-radius: 8px
        }
        div{
            display: flex;
            flex-direction: column;
            width: 500px;
        }
    </style>
</head>
<body ng-app="myApp">
    <div ng-controller="myController" class="">
        Enter Password: <input type="password" ng-model="password"/> <br />
        <button ng-click="DisplayMessage(password)">Show Password</button>
    </div>
    <script>
        var myApp = angular.module("myApp", []);
        myApp.controller("myController", function ($scope, $window) {
            $scope.DisplayMessage = function (value) {
                $window.alert(value);
            }
        });
    </script>
</body>
```

```
</html>
```

Output:-


AN 04
AN 04
AN 04
AN 04
DM
127.0.0.1:5500 says
DishaMane23
OK
Enter Password:
••••••••••
Show Password

Practical 8

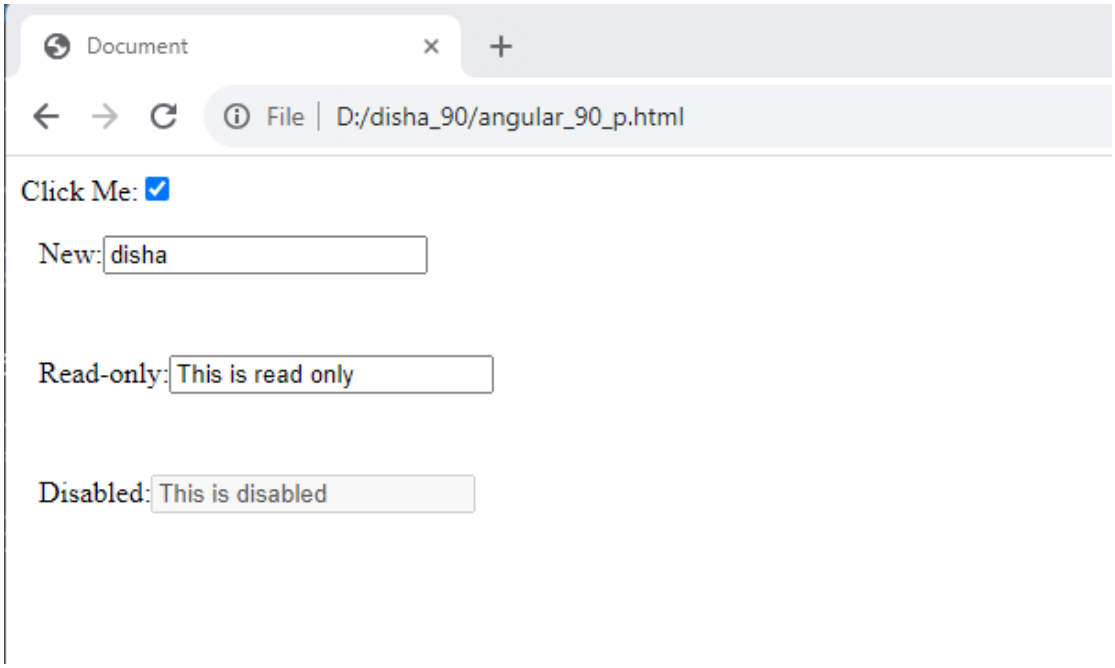
Aim:-Create an application in angular js to demonstrate the use of ng-if, ng-disabled and ng-read only

Code:

```
<!DOCTYPE html>

<html lang="en">

<head>

   <meta charset="UTF-8">

   <meta name="viewport" content="width=device-width, initial-scale=1.0">

   <title>Document</title>

   <script src="angular.min.js"></script>

   <style>div{

      width: 100%; height: 50px; display: block;

      margin: 15px 0 0 10px;

   }

   </style>

</head>


<body ng-app ng-init="checked=true">

   Click Me:<input type="checkbox" ng-model="checked"/><br/>

   <div>New:<input ng-if="checked" type="text"/></div>

   <div>Read-only:<input ng-readonly="checked" type="text" value="This is read
only"/></div>

   <div>Disabled:<input ng-disabled="checked" type="text" value="This is
disabled"/></div>


</body>
```

```
</html>
```

Output:-


Document
File | D:/disha_90/angular_90_p.html
Click Me:
New: disha
Read-only: This is read only
Disabled: This is disabled

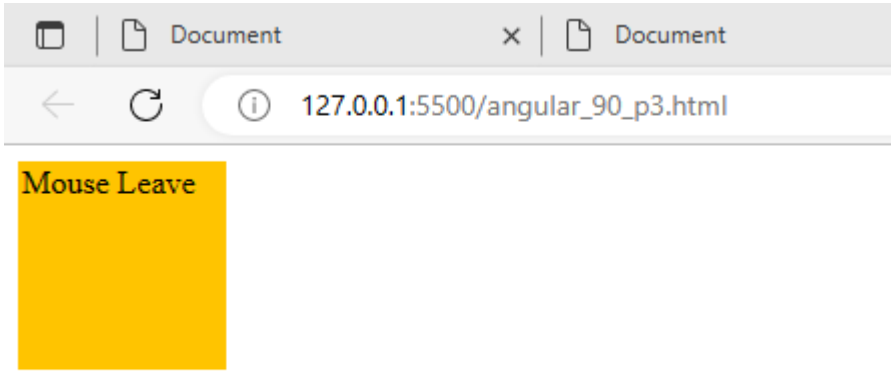
Practical 9

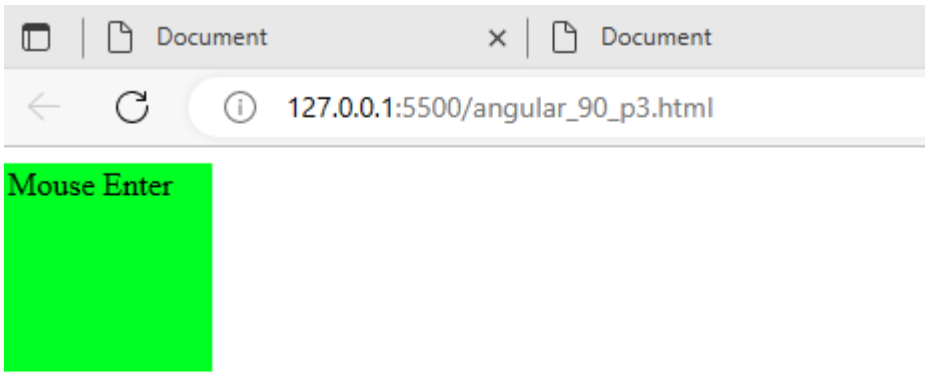
Aim:-Create an application in angular js to demonstrate use of mouse-enter and mouse-leave event

Code:

```
<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

    <script src="angular.min.js"></script>

    <style>

        .redDiv{width: 100px; height: 100px; background-color: rgb(0, 255, 34); padding: 2px 2px 2px 2px;}

        .yellowDiv{width: 100px; height: 100px; background-color: rgb(255, 196, 0); padding: 2px 2px 2px 2px;}



    </style>

</head>

<body ng-app>

<div ng-class="{redDiv:enter,yellowDiv:leave}" ng-mouseenter="enter=true;leave=false;"

    ng-mouseleave="leave=true;enter=false">Mouse <span ng-show="enter">Enter</span>

    <span ng-show="leave">Leave</span>



</div>

</body>

</html>
```

Output:-


Document
Document
127.0.0.1:5500/angular_90_p3.html
Mouse Leave


Document
Document
127.0.0.1:5500/angular_90_p3.html
Mouse Enter

Practical 10

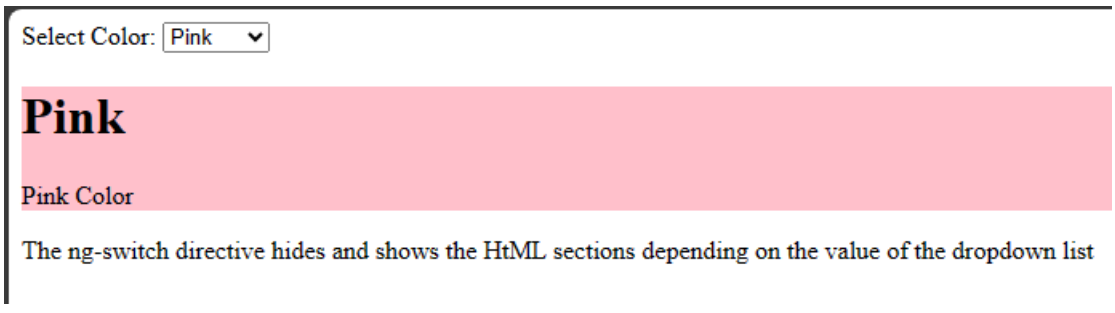
Aim:-Write an application in angular js to display options using select tag as user chooses the color option the respective color and content should change

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>AN 08</title>
   <script src="angular.min.js"></script>
</head>
<body ng-app="">
<div><form>
   Select Color:
   <select ng-model="myVar">
      <option value="pink">Pink</option>
      <option value="blue">Sky Blue</option>
      <option value="lav">Lavender</option>
   </select>
</form>
</div>
<div ng-switch="myVar">
   <div ng-switch-when=""></div>
</div>
<div ng-switch="myVar">
<div ng-switch-when="pink" style="background-color: pink;">
```

```
<h1>Pink</h1>

<p>Pink Color</p>

</div></div>

<div ng-switch="myVar">

<div ng-switch-when="blue" style="background-color: lightblue;">

<h1>Sky Blue</h1>

<p>Sky Blue Color</p>

</div></div>

<div ng-switch="myVar">

<div ng-switch-when="lav" style="background-color: rgb(226, 184, 253);">

<h1>Lavender</h1>

<p>Lavender Color</p>

</div></div>

<p>The ng-switch directive hides and shows the HtML sections depending on the value of the dropdown list </p>

</body>

</html>
```

Output:-



Practical 11

Aim : Write an Angular JS code to display a Registration form for Student applying for a new Course. Display all the values entered by the students.

Code:-

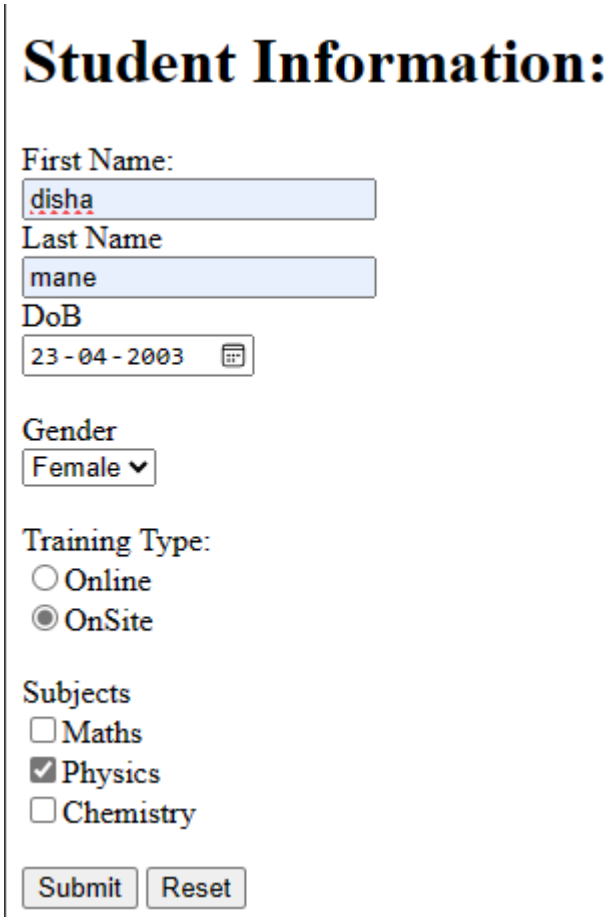
```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body ng-controller="studentController">
    <h1>Student Information:</h1>
    <form ng-submit="submitStudnetForm()">
        <label for="firstName">First Name: </label><br />
        <input type="text" id="firstName" ng-model="student.firstName" /> <br />
        <label for="lastName">Last Name</label><br />
        <input type="text" id="lastName" ng-model="student.lastName" /> <br />
        <label for="dob">DoB</label><br />
        <input type="date" id="dob" ng-model="student.DoB" /> <br /><br />
        <label for="gender">Gender</label> <br />
        <select id="gender" ng-model="student.gender">
            <option value="male">Male</option>
            <option value="female">Female</option>
        </select><br /> <br />
        <span>Training Type:</span><br />
        <label><input value="online" type="radio" name="training" ng-
model="student.trainingType" />Online</label><br />
```

```
        <label><input value="onsite" type="radio" name="training" ng-
model="student.trainingType" />OnSite</label>

        <br /><br />

        <span>Subjects</span><br />

        <label><input type="checkbox" ng-model="student.maths" />Maths</label> <br
/>

        <label><input type="checkbox" ng-model="student.physics" />Physics</label>
<br />

        <label><input type="checkbox" ng-model="student.chemistry"
/>Chemistry</label><br /><br />

        <input type="submit" value="Submit" ng-click="msg()" />

        <input type="reset" ng-click="resetForm()" value="Reset" />

    </form>

    <script>

        //1. create app module

        var studentApp = angular.module('studentApp', []);

        //2. create controller

        studentApp.controller("studentController", function ($scope, $http, $window) {


            //3. attach originalStudent model object

            $scope.originalStudent = {

                firstName: 'James',

                lastName: 'Bond',

                DoB: new Date('01/31/1980'),

                gender: 'male',

                trainingType: 'online',

                maths: false,

                physics: true,
```

```
        chemistry: true
    };
    //4. copy originalStudent to student. student will be bind to a form
    $scope.student = angular.copy($scope.originalStudent);
    //5. create submitStudentForm() function. This will be called when user submits the form
    $scope.submitStudnetForm = function () {
        var onSuccess = function (data, status, headers, config) {
            alert('Student saved successfully.');
        };
        var onError = function (data, status, headers, config) {
            alert('Error occured.');
        }
        $http.post('/student/submitData', { student: $scope.student })
            .success(onSuccess)
            .error(onError);
    };
    //6. create resetForm() function. This will be called on Reset button click.
    $scope.resetForm = function () {
        $scope.student = angular.copy($scope.OriginalStudent);
    };

    $scope.msg = function () {
        $window.alert("ho gaya karke");
    }

});
```

```
    </script>
</body>
</html>
```

Output:-



Practical 12

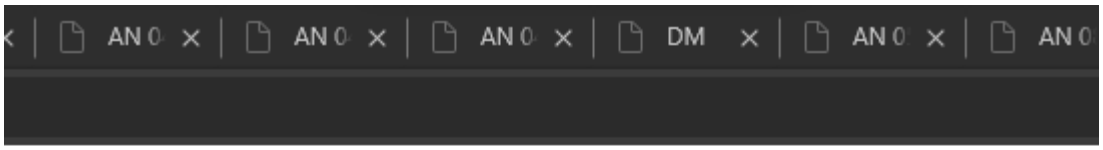
Aim:-To demonstrate the use of regular expressions for validating input fields in a form

Code:-

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <script src='angular.min.js'></script>
    <title>Document</title>
</head>
<body ng-app="app" style="text-align:center">
    <h1 style="color:green;">Regular Expression for input field</h1>
    <div ng-controller="reg">
        <ng-form name="num">
            Input Number:
            <input type="text" ng-model="number" name="number" ng-pattern="re"
/><br />
            <span ng-show="num.number.$error.pattern" style="color:red">
                Input is not valid.
            </span>
        </ng-form>
    </div>
</body>
<script>
    var app = angular.module("app", []);
    app.controller('reg', ['$scope', function ($scope) {
```

```
        $scope.re = /^[0-9]{1,6}$/;
    }]);
</script>
</html>
```

Output:-



Regular Expression for input field

Input Number: 20042003

Input is not valid.

Practical 13

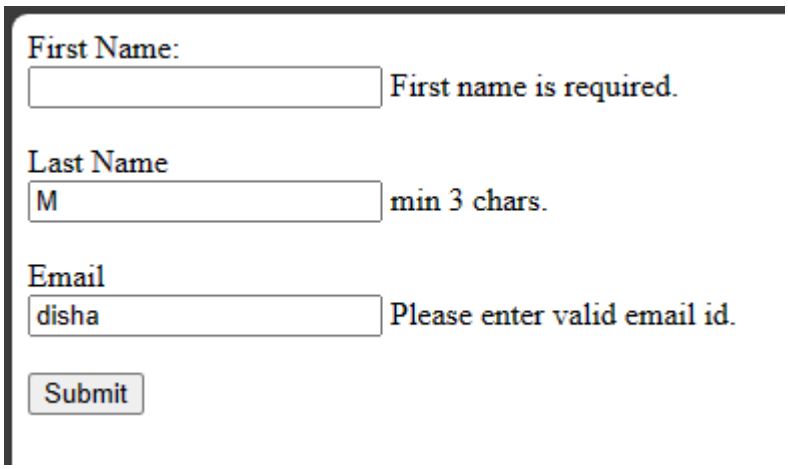
Aim : To demonstrate use of validation directives

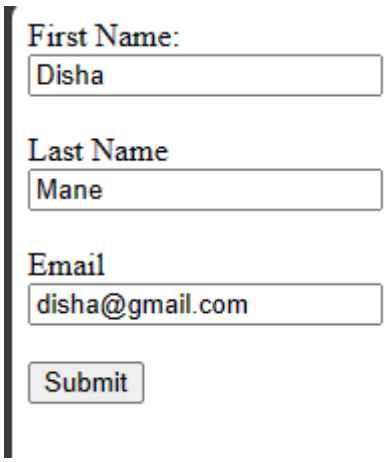
Code :

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <script src='angular.min.js'></script>
</head>
<body ng-app>
    <form name="studentForm" novalidate>
        <label for="firstName">First Name: </label> <br />
        <input type="text" name="firstName" ng-model="student.firstName" ng-
required="true" />
        <span ng-show="studentForm.firstName.$touched &&
  studentForm.firstName.$error.required">First name is required.</span><br /><br />
        <label for="lastName">Last Name</label><br />
        <input type="text" name="lastName" ng-minlength="3" ng-maxlength="10" ng-
model="student.lastName" />
        <span ng-show="studentForm.lastName.$touched &&
  studentForm.lastName.$error.minlength">min 3 chars.</span>
        <span ng-show="studentForm.lastName.$touched &&
  studentForm.lastName.$error.maxlength">Max 10 chars.</span><br /><br />
        <label for="dob">Email</label><br />
        <input type="email" id="email" ng-model="student.email" name="email" />
```

```
        <span ng-show="studentForm.email.$touched &&
studentForm.email.$error.email">Please enter

            valid email id.</span><br /><br />

        <input type="submit" value="Submit" />

    </form>

</body>

</html>
```

Output:-





Practical 14

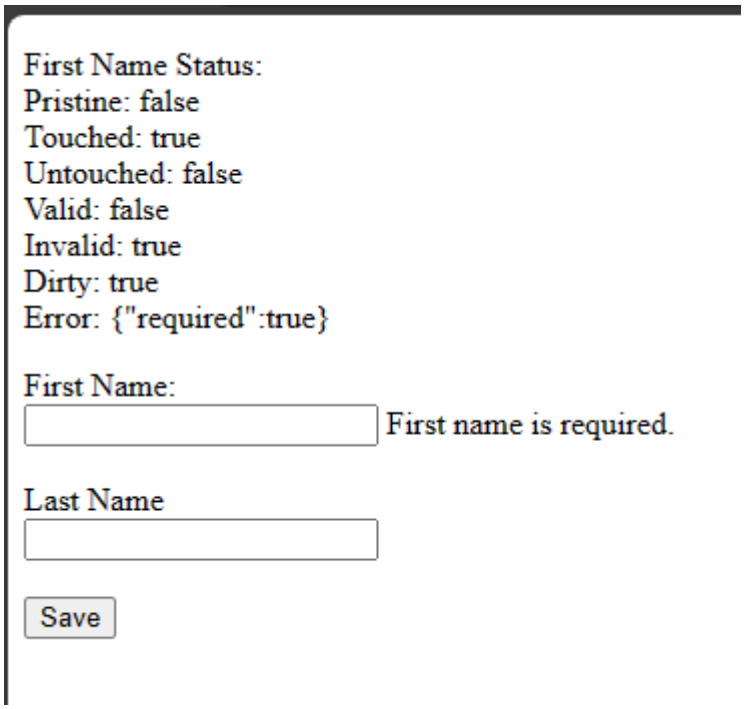
Aim : To demonstrate the state properties of form fields

Code :

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="v      iewport" content="width=device-width, initial-scale=1.0">
   <title>Document</title>
   <script src='angular.min.js'></script>
</head>
<body ng-app>
   <form name="studentForm" novalidate>
   <p>
   First Name Status: <br />
   Pristine: {{studentForm.firstName.$pristine}} <br />
   Touched: {{studentForm.firstName.$touched}}<br />
   Untouched: {{studentForm.firstName.$untouched}}<br />
   Valid: {{studentForm.firstName.$valid}} <br />
   Invalid: {{studentForm.firstName.$invalid}} <br />
   Dirty: {{studentForm.firstName.$dirty}} <br />
   Error: {{studentForm.firstName.$error }} <br />
   </p>
   <label for="firstName">First Name: </label> <br />
   <input type="text" name="firstName" ng-model="student.firstName" ng-
required="true" />
   <span ng-show="studentForm.firstName.$touched &&
```

```
  studentForm.firstName.$error.required">First name is required.</span><br /><br />

    <label for="lastName">Last Name</label><br />

    <input type="text" name="lastName" ng-minlength="3" ng-maxlength="10" ng-
model="student.lastName" /> <br />

    <span ng-show="studentForm.lastName.$error.minlength">min 3 chars.</span>

    <span ng-show="studentForm.lastName.$error.maxlength">Max 10 chars.</span>
<br />

    <input type="submit" value="Save" />

    </form>

   </body>

</html>
```

Output:-



Roll No:-90
FYMCA Div:-B

First Name Status:
Pristine: false
Touched: true
Untouched: false
Valid: true
Invalid: false
Dirty: true
Error: {}

First Name:
disha

Last Name
ma
min 3 chars.
Save

First Name Status:
Pristine: false
Touched: true
Untouched: false
Valid: true
Invalid: false
Dirty: true
Error: {}

First Name:
disha

Last Name
manemanehjk
Max 10 chars.
Save

First Name Status:
Pristine: false
Touched: true
Untouched: false
Valid: true
Invalid: false
Dirty: true
Error: {}

First Name:
disha

Last Name
mane

Save

Practical 15

Aim : To demonstrate the use of a Single Page Application (SPA)

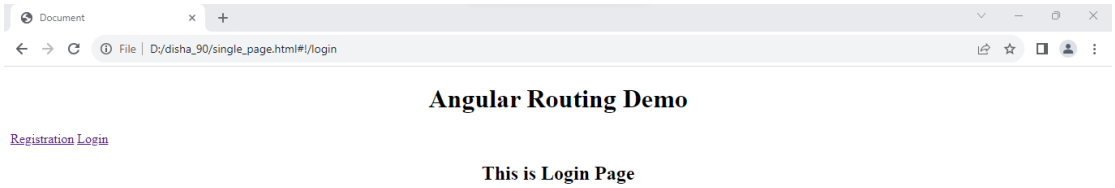
Code :

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <script src="angular.min.js"></script>
    <script src="angular-route.js"></script>
</head>
<body ng-app="ngRoutingDemo">

    <h1><center>Angular Routing Demo</center></h1>
    <div>
        <a href="#!/register">Registration</a>
        <a href="#!/login">Login</a>
    </div>
    <div ng-view align="center"></div>
    <script>
         var app = angular.module('ngRoutingDemo', ['ngRoute']);
        app.config(function ($routeProvider) {
        $routeProvider
        .when("/register",{
        template:
         "<h2> This is Registration Page</h2>"
```

```
        })
        .when("/login",{
        template: "<h2> This is Login Page</h2>"
       })
    });
    </script>
</body>
</html>
```

Output:-

Roll No:-90
FYMCA Div:-B



Angular Routing Demo

Registration Login

This is Login Page

Practical 16

Aim :Create an application with Login page and Registration Page using Single Page

Application(SPA)

Code :

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Document</title>
   <script src="angular.min.js"></script>
   <script src="angular.route.min.js"></script>
</head>
<body ng-app="ngRoutingDemo">
   <h1><center>Angular Routing Demo</center></h1>
   <div>
      <a href="#!/register">Registration</a>
      <a href="#!/login">Login</a>
   </div>
   <div ng-view align="center"></div>
   <script>
      var app = angular.module('ngRoutingDemo', ['ngRoute']);
      app.config(function ($routeProvider) {
      $routeProvider
      .when("/register",{
         templateUrl: "Register.html"
      })
      .when("/login",{
         templateUrl: "Login.html"
      })
      });
   </script>
</body>
</html>
```

Register.html Page

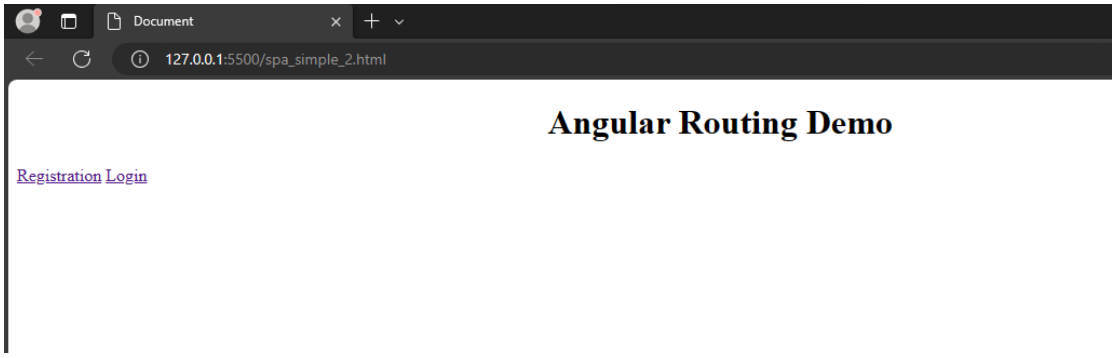
```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Document</title>
</head>
<body>
```

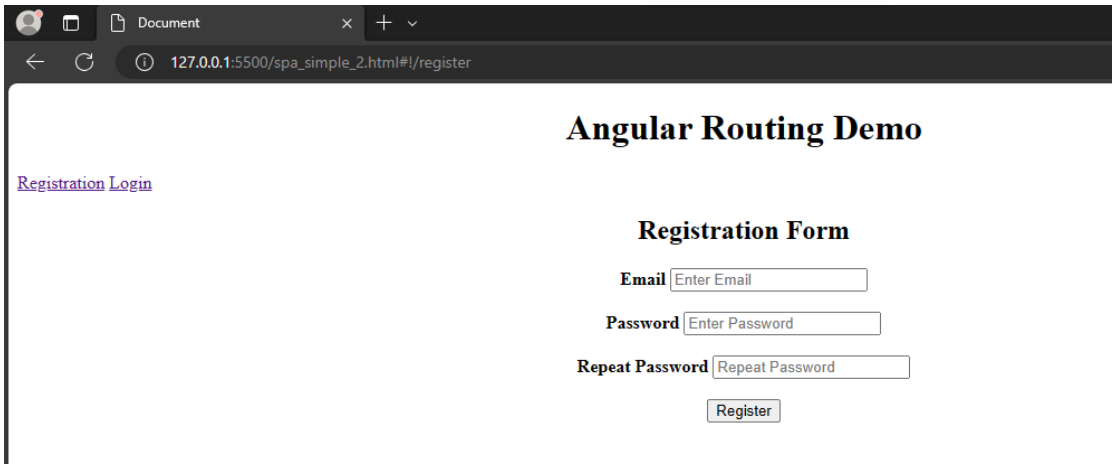
```
<form>
   <div>
      <h2>Registration Form</h2>
      <label for="email"><b>Email</b></label>
      <input type="text" placeholder="Enter Email" name="email" id="email"
required><br><br>

      <label for="psw"><b>Password</b></label>
      <input type="password" placeholder="Enter Password" name="psw" id="psw"
required><br><br>

      <label for="psw-repeat"><b>Repeat Password</b></label>
      <input type="password" placeholder="Repeat Password" name="psw-repeat"
id="psw-repeat" required><br><br>

      <button type="submit" class="registerbtn">Register</button>
   </div>
</form>
</body>
</html>
```

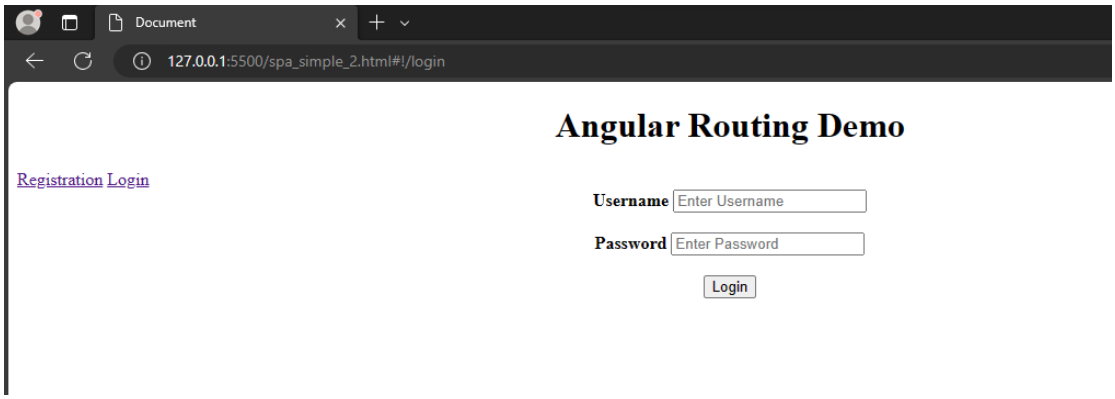
Login.html

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Document</title>
</head>
<body>
   <form>
      <div class="container">
         <label for="uname"><b>Username</b></label>
         <input type="text" placeholder="Enter Username" name="uname"
required><br><br>

         <label for="psw"><b>Password</b></label>
         <input type="password" placeholder="Enter Password" name="psw"
required><br><br>

         <button type="submit">Login</button>

      </div>
   </form>
</body>
</html>
```

Output:


Document
127.0.0.1:5500/spa_simple_2.html
Angular Routing Demo
Registration Login


Document
127.0.0.1:5500/spa_simple_2.html#!/register
Angular Routing Demo
Registration Login
Registration Form
Email Enter Email
Password Enter Password
Repeat Password Repeat Password
Register


Document
127.0.0.1:5500/spa_simple_2.html#!/login
Angular Routing Demo
Registration Login
Username Enter Username
Password Enter Password
Login