

# INDEX

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<b>PIRENS Institute of Business Management and Administration, Loni BK.</b>
<b>Seat No: 4956</b>
<b>Student Name : Vishal Shridhar Vishwakarma</b>
<b>Subject Name: IT23L AIT</b>
<b>Program Title: 1) Program to Implement Audio and Video Features for your web page.</b>

### a) Audio

```

<!DOCTYPE HTML>

<html>

<body>

<br><br><br>

<audio controls autoplay>

<source src = "Love_you.mp3" type = "audio/mp3" />Your browser does not support the
<audio> element.

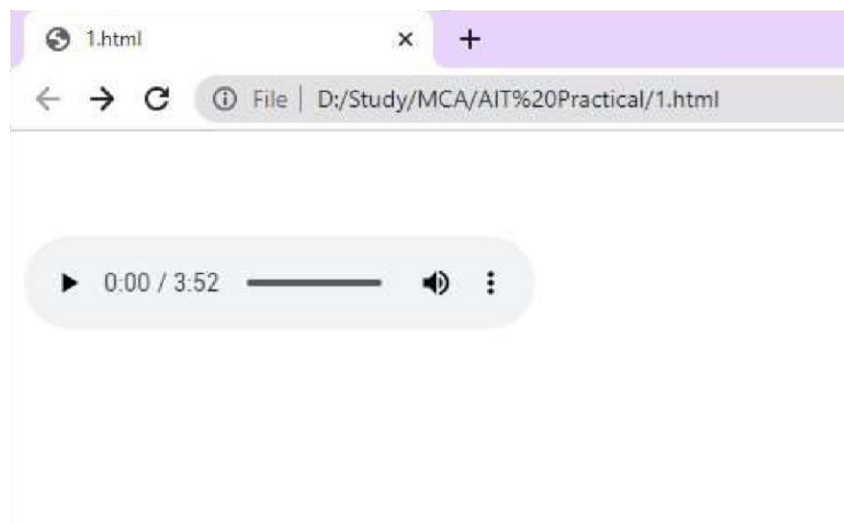
</audio>

</body>

</html>

```

### Output:



## B) Video

```
<!DOCTYPE HTML>
```

```
<html>
```

```
<body>
```

```
<br>
```

```
<br>
```

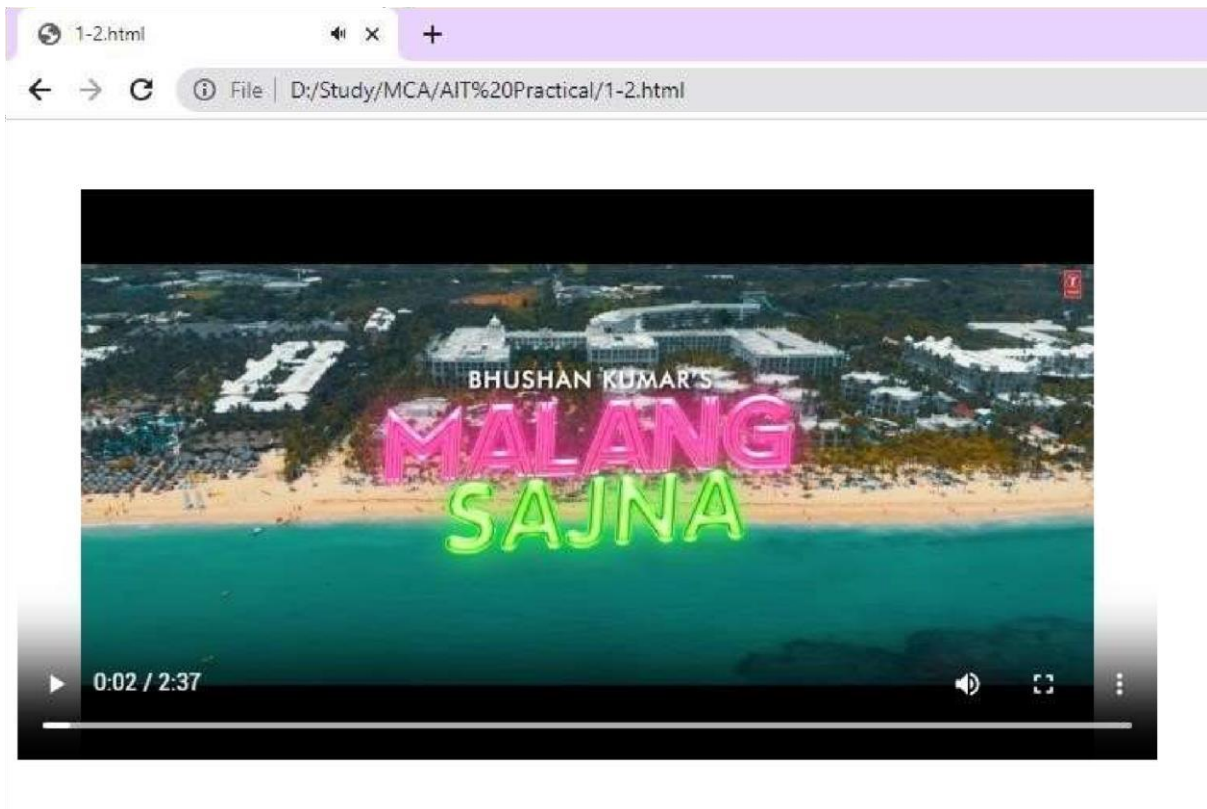
```
<video width = "720" height = "360" controls autoplay><source  
src = "Malang_Sajna.mp4" type = "video/mp4" /> Your browser  
does not support the <video> element.
```

```
</video>
```

```
</body>
```

```
</html>
```

**Output: -**



<b>PIRENS Institute of Business Management and Administration, Loni BK.</b>
<b>Seat No: 4956</b>
<b>Student Name : Vishal Shridhar Vishwakarma</b>
<b>Subject Name: IT23L AIT</b>
<b>Program Title: 2) Program to design form using HTML5 elements, attribute and Semantics</b>

**Code:**

```
<html>
```

```
<body>
```

```
<form>
```

```
<b>Username:</b><br>
```

```
<input type="text" name="username">
```

```
<br>
```

```
</form>
```

```
<form>
```

```
<label for="EMAIL ID"><b>Email Id:</b></label><br>
```

```
<input type="text" name="Email id" id="Email id">
```

```
</form>
```

```
<form>
```

```
<label for="user-password"><b>Password:</b>
```

```
</label><br>
```

```
<input type="password" name="user-pwd" id="user-password">
```

```
</form>
```

<form>

<b>SELECT GENDER</b>

<br>

<input type="radio" name="gender" id="male">

<label for="male">Male</label><br>

<input type="radio" name="gender" id="female">

<label for="female">Female</label>

</form><form>

<b>SELECT SUBJECTS</b>

<br>

<input type="checkbox" name="subject" id="maths">

<label for="maths">Maths</label>

<input type="checkbox" name="subject" id="science">

<label for="science">Science</label>

<input type="checkbox" name="subject" id="english">

<label for="english">English</label>

<input type="checkbox" name="subject" id="CS">

<label for="cs">CS</label>

</form>

<form>

<label for="fileselect"><b>Upload:</b></label>

```
<input type="file" name="upload" id="fileselect">
```

```
</form>
```

```
<form>
```

```
<label for="Description"><b>Description:</b></label>
```

```
<textarea rows="5" cols="50" name="Description" id="Description"></textarea></form>
```

```
<form>
```

```
<label for="country"><b>Country:</b></label>
```

```
<select name="country" id="country">
```

```
<option value="India">India</option>
```

```
<option value="Sri Lanka">Sri Lanka</option>
```

```
<option value="Australia">Australia</option>
```

```
</select>
```

```
<br>
```

```
<br>
```

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

```
</form>
```

```
</body>
```

```
</html>
```

**Output: -**

New Tab x 2.html x +

File D:/Study/MCA/AIT%20Practical/2.html

**Username:**

**Email Id:**

**Password:**

**SELECT GENDER**  
☐ Male  
☐ Female

**SELECT SUBJECTS**  
☐ Maths ☐ Science ☐ English ☐ CS

**Upload:**  No file chosen

**Description:**

**Country:** India

<b>PIRENS Institute of Business Management and Administration, Loni BK.</b>
<b>Seat No: 4956</b>
<b>Student Name : Vishal Shridhar Vishwakarma</b>
<b>Subject Name: IT23L AIT</b>
<b>Program Title: 3) Program Using Canvas and SVG.</b>

#### a) Canvas

```

<html>

<body>
<br>
<canvas id="myCanvas" width="200" height="100" style="border:1px solid #AAAAAA;">
Your browser does not support the HTML canvas tag.</canvas>
<script>

var c = document.getElementById("myCanvas");

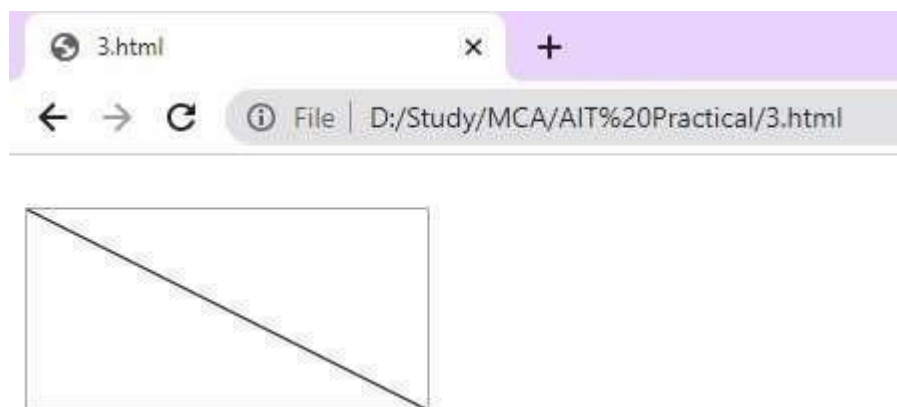
var ctx = c.getContext("2d"); ctx.moveTo(0,0); ctx.lineTo(200,100); ctx.stroke(); </script>

</body>

</html>

```

#### Output:





## b) SVG

```
<!DOCTYPE html>
<html>

<body>
<br>
<svg width="150" height="150">

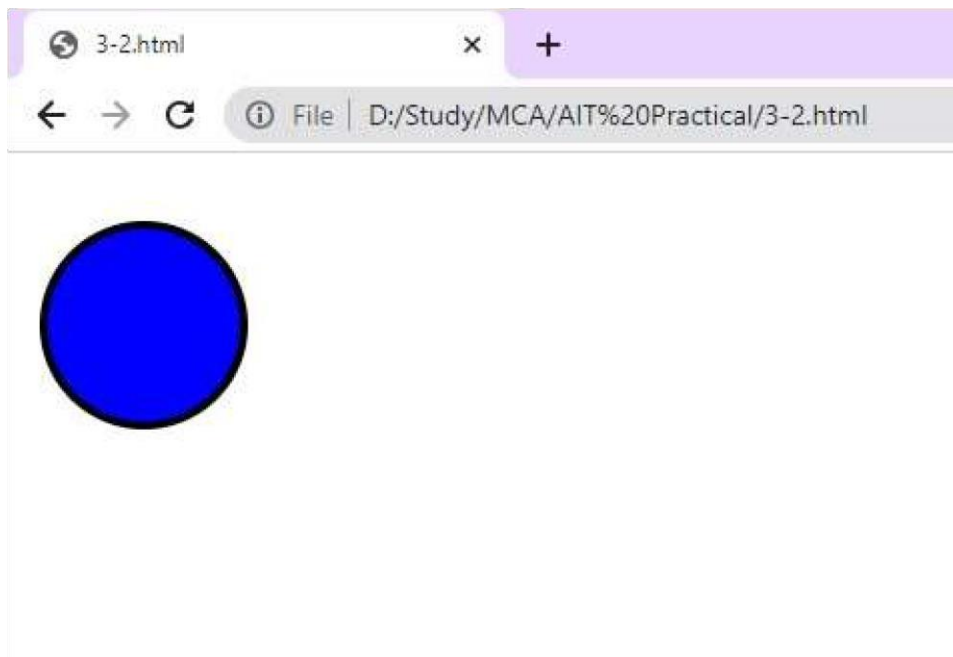
<circle cx="60" cy="60" r="50" stroke="black" stroke-width="4" fill="blue" />

</svg>

</body>

</html>
```

### Output:



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<b>Seat No: 4956</b>
<b>Student Name : Vishal Shridhar Vishwakarma</b>
<b>Subject Name: IT23L AIT</b>
<b>Program Title: 4) Program to demonstrate external and internal styles in the web page using font, text, background, borders, opacity and other CSS3properties.</b>

#### a) External

HTML Code:

```
<html><head>

<link rel="stylesheet" href="4cs.css">

</head>
<body>
<h2>This is Highlighted Text using External CSS</h2>
<h3>This is our Paragraph</h3>
<p>This Is a paragraph</p>

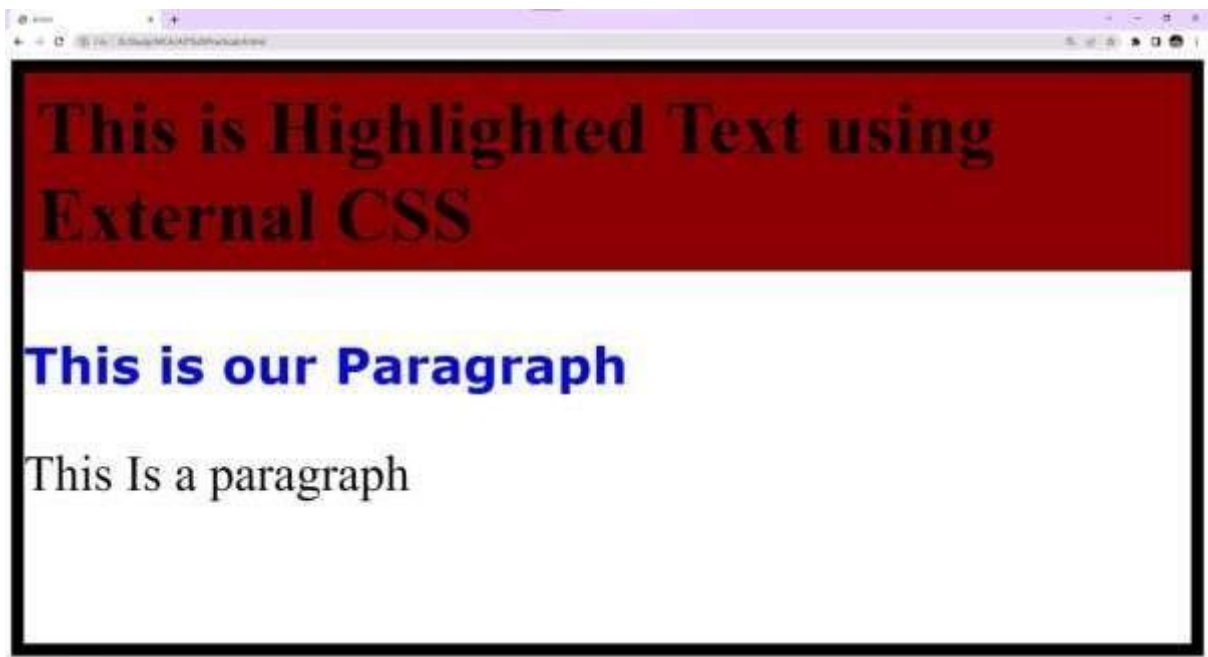
</body>
</html>
```

CSS Code:

```
h2 { background:
darkred; padding: 4px;
} h3 {
color: blue; font-family: verdana;
font-size:
100%;
```

```
} body  
{ border: 4px solid black;  
margin:  
2px;  
}
```

**Output:**



**a) Internal**

```
<!DOCTYPE html>
```

```
<html><head><style> h1
{ color: red; padding:
40px; } div { background-
color: yellow; }

</style>

</head>

<body>

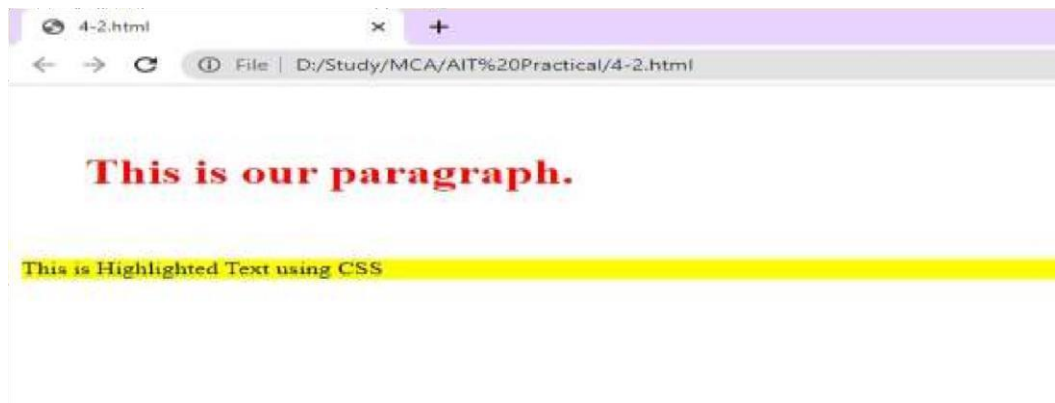
<h1>This is our paragraph.</h2>

<div>This is Highlighted Text using CSS</div>

</body>

</html>
```

**Output:**



**PIRENS Institute of Business Management and Administration, Loni BK.**

**Seat No: 4956**

**Student Name :Vishal Shridhar Vishwakarma**

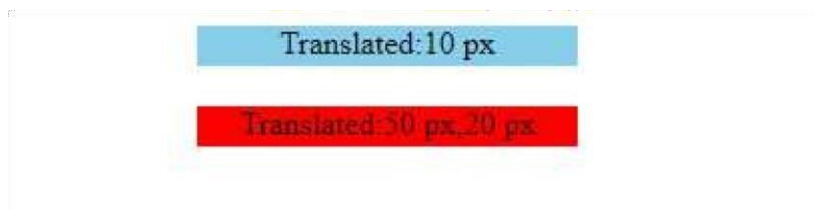
**Subject Name: IT23L AIT**

**Program Title: 5) Implement Transformation using Translation, Rotation and Scaling in your web page**

**a) Translation:**

```
<html>
<head>
<style type="text/css"> div
{ width: 190px; height:
20px; text-align: center;
backgroundcolor: pink; }
.translate1 { transform:
translate(50px);
background-color: skyblue;
} .translate2 { transform:
translate(50px,20px);
background-color: red;
} </style>
</head>
<body>
<center>
<div class="translate1">Translated:10px</div>
<div class="translate2">Translated:50 px,20 px</div>
</center></body>
</html>
```

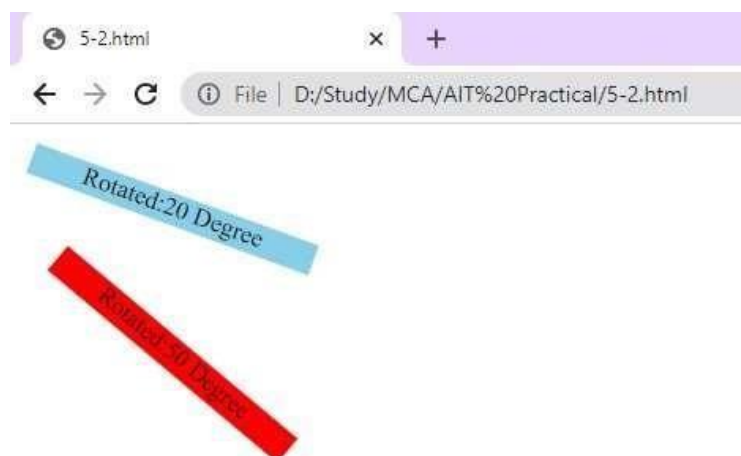
**Output:**



**b) Rotation:**

```
<html><head><style> div
{ width: 190px; height:
20px; text-align: center;
background-color: black;
} .rotate1 { transform:
rotate(20deg);
backgroundcolor: skyblue;
} .rotate2 { transform:
rotate(40deg);
background-color: red;
}
</style></head>
<body>
<br></br>
<div class="rotate1">Rotated:20 Degree</div>
<br></br>
<br></br>
<div class="rotate2">Rotated:50 Degree</div>
</body></html>
```

### Output:



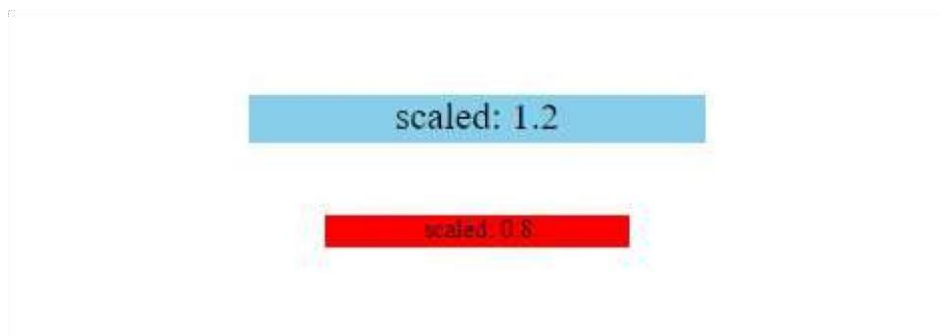
### c) Scaling

```
<html>
<head><style>

div { width: 190px;
height: 20px; text-align:
center;
background-color: black;
} .scale1 { transform:
scale(1.2);
background-color:
skyblue; } .scale2 {
transform: scale(0.8);
background-color: red;
}
</style>
</head>
<body>
<br></br>
<center>
<div class="scale1">scaled: 1.2</div>
<br></br>
<div class="scale2">scaled: 0.8 </div>

</center>
</body>
</html>
```

**Output:**



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<b>Seat No: 4956</b>
<b>Student Name: Vishal Shridhar Vishwakarma</b>
<b>Subject Name: IT23L AIT</b>
<b>Program Title: 6) Program to show current date and time using user defined module.</b>

**Code:**

```
<!DOCTYPE html>
<html>
<head>
<title>Display Current Date and Time in HTML using JavaScript</title>
</head>
<body>
<p>Date and Time: </br></br><span id="datetime"></span></p>

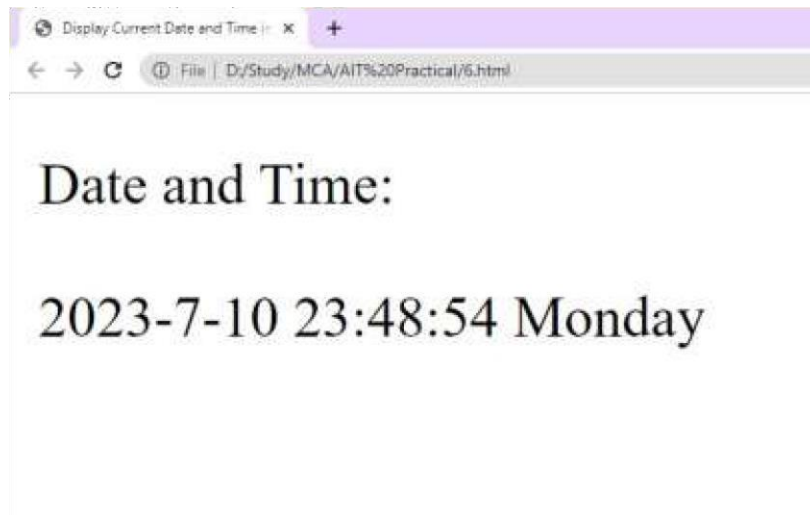
<script type="text/javascript">var
today = new Date();    var day =
today.getDay();
var daylist = ["Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday",
"Saturday"];    var date = today.getFullYear() + '-' + (today.getMonth() + 1) + '-' +
today.getDate();    var time = today.getHours() + ":" + today.getMinutes() + ":" +
today.getSeconds();    vardateTime = date + ' ' + time;

document.getElementById("datetime").textContent = dateTime + ' ' + daylist[day]; </script>

</body></html>
```

**Output:**





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<b>Seat No: 4956</b>
<b>Student Name : Vishal Shridhar Vishwakarma</b>
<b>Subject Name: IT23L AIT</b>
<b>Program Title: 7) Program using built-in modules to split the query string into readable Parts</b>

**Code:**

```
var url = require('url'); var address =  
'http://localhost:8080/index.php?type=page&action=update&id=5221'; var q =  
url.parse(address, true); console.log(q.host); console.log(q.pathname);  
console.log(q.search); var qdata = q.query; console.log(qdata.type);  
console.log(qdata.action); console.log(qdata.id);
```

**Output:**

```
Microsoft Windows [Version 10.0.19045.2913]  
(c) Microsoft Corporation. All rights reserved.  
  
D:\Study\MCA\AIT Practical> node main.js  
localhost:8080  
/index.php  
?type=page&action=update&id=5221  
page  
update  
5221  
  
D:\Study\MCA\AIT Practical>
```

**PIRENS Institute of Business Management and Administration, Loni BK.**

**Seat No: 4956**

**Student Name : Vishal Shridhar Vishwakarma**

**Subject Name: IT23L AIT**

**Program Title: 8) Program using NPM which will convert entered string into either case.**

### Code:

```
const jsConvert = require('js-convert-case'); const str = "param-case";
console.log(str.toUpperCase()); console.log(str.toLowerCase());
console.log(jsConvert.toCamelCase(str)); // paramCase
console.log(jsConvert.toSnakeCase(str)); // param_case
console.log(jsConvert.toPascalCase(str)); // ParamCase
console.log(jsConvert.toDotCase(str)); // param.case console.log(jsConvert.toPathCase(str));

// param/case console.log(jsConvert.toTextCase(str)); // param case
console.log(jsConvert.toSentenceCase(str)); // Param case
console.log(jsConvert.toHeaderCase(str)); // Param Case
console.log(jsConvert.toLowerCase(str)); // param-case
console.log(jsConvert.toUpperCase(str)); // PARAM-CASE
```

### Output:-

paramCase	Example8.html:19
param_case	Example8.html:20
ParamCase	Example8.html:21
param.case	Example8.html:22
param/case	Example8.html:23
param case	Example8.html:24
Param case	Example8.html:25
Param Case	Example8.html:26
param-case	Example8.html:27
PARAM-CASE	Example8.html:28

> |

<b>PIRENS Institute of Business Management and Administration, Loni BK.</b>
<b>Seat No: 4956</b>
<b>Student Name : Vishal Shridhar Vishwakarma</b>
<b>Subject Name: IT23L AIT</b>
<b>Program Title: 9) Write a program to create a calculator using Node Js.</b>

**Code:**

```

module.exports = function (server) {

//route - about server.route({
method: 'GET',

path: '/calculadora/about', handler: function (request, h) { var
data = {

message: 'Calculator API - made by Bernardo Rocha'

};

return data;

}

});

//route - sum server.route({
method: 'GET',

path: '/calculator/sum/{ num1 }+{ num2 }', handler: function (request, h) { const num1 =
parseInt(request.params.num1); const num2 = parseInt(request.params.num2); var data = {
answer: num1 + num2

};

return data;

}

```

```

});

//route - subtraction server.route({ method:
'GET',

path: '/calculator/sub/{num1}-{num2}', handler: function (request, h) {
const num1 = parseInt(request.params.num1); const num2 = parseInt(request.params.num2);
var data = { answer: num1 - num2

});

return data;

}
});

//route - multiplication server.route({
method: 'GET',

path: '/calculator/multi/{num1}*{num2}', handler: function (request, h) {
const num1 = parseInt(request.params.num1); const num2 = parseInt(request.params.num2);
var data = { answer: num1 * num2

});

return data;

}

});

//route - division server.route({
method: 'GET',
path: '/calculator/div/{num1}/{num2}', handler: function (request, h) {
const num1 = parseInt(request.params.num1); const num2 = parseInt(request.params.num2);
var data = { answer: num1 / num2

});

return data;

}

```

```
});
```

```
}
```

### **index.js**

```
//Hapi framework
```

```
const Hapi = require('hapi');
```

```
//Address and port const host = 'localhost'; const port = 3000;
```

```
//Create server
```

```
const server = Hapi.Server({
```

```
  host: host, port: port
```

```
});
```

```
//Routes require('./routes/routes')(server);
```

```
//Start server
```

```
const init = async () => { await server.start(); console.log("Server up! Port: " + port); }
```

```
//Start App init();
```

### **Output:**



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<b>Seat No:4956</b>
<b>Student Name : Vishal Shridhar Vishwakarma</b>
<b>Subject Name: IT23L AIT</b>
<b>Program Title: 10) Write a program for Form validation in Angular.</b>

**Code:**

app.component.html

```
<div style="text-align:center">
```

```
<h1>
```

```
Welcome to {{title}}!!
```

```
</h1>
```

```
<form [formGroup]="angForm" novalidate>
```

```
<div class="form-group">
```

```
<label class="center-block">Name:
```

```
<input class="form-control" formControlName="name">
```

```
</label>
```

```
</div>
```

```
<div *ngIf="angForm.controls['name'].invalid && (angForm.controls['name'].dirty ||
angForm.controls['name'].touched)" class="alert alert-danger">
```

```
<div *ngIf="angForm.controls['name'].errors.required"> Name is required. </div>
```

```
</div>
```

```
</form>
```

```
<p>Form value: {{ angForm.value | json }}</p>
```

```
<p>Form status: {{ angForm.status | json }}</p></div>
```

app.component.ts

```
import { Component } from '@angular/core';
```

```
import { FormGroup, FormBuilder, Validators } from '@angular/forms';
```

```
@Component({
```

```
  selector: 'app-root',
```

```
  templateUrl: './app.component.html', styleUrls: ['./app.component.css'] })
```

```
export class AppComponent {
```

```
  title = 'Angular Form Validation Tutorial'; angForm: FormGroup; constructor(private fb: FormBuilder) { this.createForm(); }
```

```
  createForm() {
```

```
    this.angForm = this.fb.group({
```

```
      name: ['', Validators.required ]
```

```
    });
```

```
  }
```

```
}
```

app.module.ts

```
import { ReactiveFormsModule } from '@angular/forms';
```

```
imports: [
```

```
  BrowserModule, ReactiveFormsModule]
```



## index.html

```
<!doctype html>

<html>

<head>

<meta charset="utf-8">

<title>AngularProject</title>

<base href="/">

<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0-
beta/css/bootstrap.min.css" integrity="sha384-
/Y6pD6FV/Vv2HJnA6t+vsIU6fwYXjCFtcEpHbNJ0lyAFsXTsjBbfaDjzALeQsN6M"
crossorigin="anonymous">

<meta name="viewport" content="width=device-width, initial-scale=1">

</head>

<body>

<app-root>Loading...</app-root>

</body>

</html>
```

## Output:

## Welcome to Angular Form Validation!!

Name:

Address:

email is required.

Save

Form value: { "name": "name", "address": "" }

Form status: "INVALID"

<b>PIRENS Institute of Business Management and Administration, Loni BK.</b>
<b>Seat No:4956</b>
<b>Student Name : Vishal Shridhar Vishwakarma</b>
<b>Subject Name: IT23L AIT</b>
<b>Program Title: 11) Program to demonstrate the ngif, ngfor, ngswitch statements.</b>

**Code:**

```
@Component({
  selector: 'ngif-example',
  template: `
    <h4>NgIf</h4>
    <ul *ngFor="let person of people">
      <li *ngIf="person.age < 30">
        {{ person.name }} ({{ person.age }})
      </li>
    </ul>
  `
})
class NgIfExampleComponent {
  people: any[] = [
    { "name": "Douglas Pace", "age": 35 },
    { "name": "Mcleod Mueller", "age": 32 },
    { "name": "Day Meyers", "age": 21 },
    { "name": "Aguirre Ellis", "age": 34 },
    { "name": "Cook Tyson", "age": 32 }
  ];
}
```

**Output:**



**b)ng-switch-directive.components.ts**

```
@Component({
  selector: 'ngswitch-example',
  template: `
    <h4>NgSwitch</h4>
    <ul *ngFor="let person of people" [ngSwitch]="person.country">
```

```

<li *ngSwitchCase="UK" class="text-success">{{ person.name }} ({{ person.country
}})</li>
<li *ngSwitchCase="USA" class="text-primary">{{ person.name }} ({{ person.country
}})</li>
<li *ngSwitchCase="HK" class="text-danger">{{ person.name }} ({{ person.country
}})</li>
<li *ngSwitchDefault class="text-warning">{{ person.name }} ({{ person.country }})</li>
</ul>
` ))

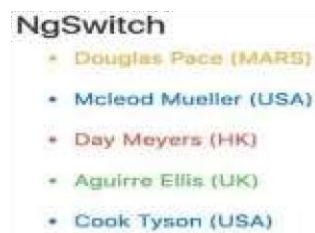
```

```

classNgSwitchExampleComponent {
  people: any[] = [
    { "name": "Douglas Pace", "age": 35, "country": 'MARS' },
    { "name": "Mcleod Mueller", "age": 32, "country": 'USA' },
    { "name": "Day Meyers", "age": 21, "country": 'HK' },
    { "name": "Aguirre Ellis", "age": 34, "country": 'UK' },
    { "name": "Cook Tyson", "age": 32, "country": 'USA' }
  ];
}

```

Output:



**PIRENS Institute of Business Management and Administration, Loni BK.**

**Seat No: 4956**

**Student Name : Vishal Shridhar Vishwakarma**

**Subject Name: IT23L AIT**

**Program Title: 12) Create angular project which has HTML template and handle the click event on click of the button (Installation of angular and bootstrap 4 CSS Framework)**

**Code:**

```
<div class="container">

<nav class="navbarnavbar-expand-lgnavbar-light bg-light">

<a class="navbar-brand" href="#">DevOps news

<small class="text-muted">

your source of news about DevOps!

</small>

</a>

<button class="navbar-toggler" type="button" datatoggle="collapse" data-
target="#navbarNavAltMarkup"

aria-controls="navbarNavAltMarkup" aria-expanded="false" arialabel="Toggle navigation">

<span class="navbar-toggler-icon"></span>

</button>

</nav>

<div class="jumbotron">

<h1 class="display-4">Hello, dev!</h1>
<p class="lead">

Read daily news and articles about DevOps!
```

</p>

<hr class="my-4">

<hr class="my-4">

</div>

<router-outlet></router-outlet>

/div>App.moudule.ts

```
import { NgModule } from '@angular/core';
```

```
import { BrowserModule } from '@angular/platform-browser'; import { AppRoutingModuleModule } from './app-routing.module'; import { AppComponent } from './app.component'; import { HttpClientModule } from '@angular/common/http';
```

```
@NgModule({ declarations: [ AppComponent ],
```

```
imports: [ BrowserModule, HttpClientModule, AppRoutingModuleModule ],  
providers: [],
```

```
bootstrap: [AppComponent]
```

```
})
```

```
export class AppModule { }
```

### **routing.moudule.ts**

```
import { NgModule } from '@angular/core';
```

```
import { RouterModule, Routes } from '@angular/router'; import { HomeComponent } from './home/home.component'; const routes: Routes = [  
{
```

```
path:"", component: HomeComponent
```

```
}
```

```
];
```

```
@NgModule({
```

```
imports: [RouterModule.forRoot(routes)], exports: [RouterModule] })
```

```
export class AppRoutingModule { }
```

### **home.component.html**

```
<div class="container">
```

```
<div *ngFor="let item of data" class="card">
```

```
<div class="card-body"><h5  
class="card-title">
```

```
{{ item.title }}
```

```
</h5>
```

```
<p class="card-text">
```

```
{{ item.description }}
```

```
</p>
```

```
<a href="{{ item.url }}" large>Read full article</a>
```

```
</div>
```

```
</div>
```

```
</div>
```

### **Output:**

## Hello, dev!

Read daily news and articles about DevOps!



### Testing platform Tricentis acquires performance testing service Neotys

If you develop software for a large enterprise company, chances are you've heard of Tricentis. If you don't develop software for a large enterprise company,



### Incredibuild gets \$140M to speed up games and other software development with distributed processing tech

Many of us are working in distributed environments these days, and in the best scenarios, it might actually have improved rather than impeded our productivity.



### Streamlit nabs \$35M Series B to expand machine learning platform

As a company founded by data scientists, Streamlit may be in a unique position to develop features to help companies build



<b>PIRENS Institute of Business Management and Administration, Loni BK.</b>
<b>Seat No: 4956</b>
<b>Student Name : Vishal Shridhar Vishwakarma</b>
<b>Subject Name: IT23L AIT</b>
<b>Program Title: 13) Program to perform the 13CRUD Operations Using PHP Script</b>

**Code:**

### **config.php**

```
<?php define('DB_SERVER',
localhost');
define('DB_USERNAME', 'root');
define('DB_PASSWORD', '');
define('DB_NAME', 'demo');

$link = mysqli_connect(DB_SERVER, DB_USERNAME, DB_PASSWORD, DB_NAME);

if ($link === false) {    die("ERROR: Could not connect. " .
mysqli_connect_error());
}
?>
```

### **create.php**

```
<?php
// Include config file
require_once "config.php";

// Define variables and initialize with empty values
$name = $address = $salary = "";
$name_err = $address_err = $salary_err = "";

// Processing form data when form is submitted
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Validate name
    $input_name = trim($_POST["name"]);    if
(empty($input_name)) {
        $name_err = "Please enter a name.";
    } elseif (!filter_var($input_name, FILTER_VALIDATE_REGEXP, array("options" =>
array("regexp" => "/^[a-zA-Z\s]+$/" )))) {        $name_err = "Please enter a valid name.";    }
    else {
```

```

    $name = $input_name;
}

// Validate address
$input_address = trim($_POST["address"]);    if
(empty($input_address)) {
    $address_err = "Please enter an address.";
} else {
    $address = $input_address;
}

// Validate salary
$input_salary = trim($_POST["salary"]);    if
(empty($input_salary)) {
    $salary_err = "Please enter the salary amount.";
} elseif (!ctype_digit($input_salary)) {
    $salary_err = "Please enter a positive integer value.";
} else {
    $salary = $input_salary;
}

// Check input errors before inserting in database
if (empty($name_err) && empty($address_err) && empty($salary_err)) {
    // Prepare an insert statement
    $sql = "INSERT INTO employees (name, address, salary) VALUES (?, ?, ?)";

    if ($stmt = mysqli_prepare($link, $sql)) {
        // Bind variables to the prepared statement as parameters
        mysqli_stmt_bind_param($stmt, "sss", $param_name, $param_address,
        $param_salary);

        // Set parameters
        $param_name = $name;
        $param_address = $address;
        $param_salary = $salary;

        // Attempt to execute the prepared statement
        if (mysqli_stmt_execute($stmt)) {
            // Records created successfully. Redirect to landing page
            header("location:
            index.php");
            exit();
        } else {
            echo "Oops! Something went wrong. Please try again later.";
        }
    }
}

```

```

    }
}

// Close statement
mysqli_stmt_close($stmt);
}

// Close connection    mysqli_close($link);
}
?>

<!DOCTYPE html><html
lang="en">

<head>
<meta charset="UTF-8">
<title>Create Record</title>
<link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
<style>    .wrapper {        width: 600px;
margin: 0 auto;
    }
</style></head>

<body>
<div class="wrapper">
<div class="container-fluid">
<div class="row">
<div class="col-md-12">
<h2 class="mt-5">Create Record</h2>
<p>Please fill this form and submit to add an employee record to the database.</p>
<form action="<?php echo htmlspecialchars($_SERVER["PHP_SELF"]); ?>"
method="post">
<div class="form-group">
<label>Name</label>
<input type="text" name="name" class="form-control <?php echo
(!empty($name_err)) ? 'is-invalid' : ''; ?>" value="<?php echo $name; ?>">
<span class="invalid-feedback"><?php echo $name_err; ?></span>
</div>
<div class="form-group">
<label>Address</label>
<textarea name="address" class="form-control <?php echo

```

```

(!empty($address_err)) ? 'is-invalid' : ''; ?>><?php echo $address; ?></textarea>
<span class="invalid-feedback"><?php echo $address_err; ?></span>
</div>
<div class="form-group">
<label>Salary</label>
<input type="text" name="salary" class="form-control <?php echo
(!empty($salary_err)) ? 'is-invalid' : ''; ?>" value="<?php echo $salary; ?>">
<span class="invalid-feedback"><?php echo $salary_err; ?></span></div>
<input type="submit" class="btn btn-primary" value="Submit">
<a href="index.php" class="btn btn-secondary ml-2">Cancel</a></form>
</div>
</div>
</div>
</div></body>

</html>

```

## Delete.php

```

<?php
// Process delete operation after confirmation
if (isset($_POST["id"]) && !empty($_POST["id"])) {
    // Include config file
    require_once "config.php";

    // Prepare a delete statement
    $sql = "DELETE FROM employees WHERE id = ?";

    if ($stmt = mysqli_prepare($link, $sql)) {
        // Bind variables to the prepared statement as parameters
        mysqli_stmt_bind_param($stmt, "i", $param_id);

        // Set parameters
        $param_id = trim($_POST["id"]);

        // Attempt to execute the prepared statement
        if (mysqli_stmt_execute($stmt)) {
            // Records deleted successfully. Redirect to landing page
            header("location: index.php");
            exit();
        } else {
            echo "Oops! Something went wrong. Please try again later.";
        }
    }
}

```

```

    }

    // Close statement
    mysqli_stmt_close($stmt);

    // Close connection    mysqli_close($link);
} else {
    // Check existence of id parameter    if
    (empty(trim($_GET["id"]))) {
        // URL doesn't contain id parameter. Redirect to error page
        header("location: error.php");    exit();
    }
}
?>

```

```

<!DOCTYPE html><html
lang="en">

```

```

<head>
<meta charset="UTF-8">
<title>Delete Record</title>
<link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
<style>    .wrapper {        width: 600px;
margin: 0 auto;
    }
</style></head>

```

```

<body>
<div class="wrapper">
<div class="container-fluid">
<div class="row">
<div class="col-md-12">
<h2 class="mt-5">Delete Record</h2>
<form action="<?php echo htmlspecialchars($_SERVER["PHP_SELF"]); ?>"
method="post">
<div class="alert alert-danger">
<input type="hidden" name="id" value="<?php echo trim($_GET["id"]); ?>" />
<p>Are you sure you want to delete this employee record?</p>
<p>
<input type="submit" value="Yes" class="btn btn-danger">
<a href="index.php" class="btn btn-secondary">No</a>

```

```
</p>
</div>
</form>
</div>
</div>
</div>
</div></body>
```

```
</html>
```

### **Error.php**

```
<!DOCTYPE html><html
lang="en">

<head>
<meta charset="UTF-8">
<title>Error</title><link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
<style>    .wrapper {        width: 600px;
margin: 0 auto;
    }
</style></head>

<body>
<div class="wrapper">
<div class="container-fluid">
<div class="row">
<div class="col-md-12">
<h2 class="mt-5 mb-3">Invalid Request</h2>
<div class="alert alert-danger">Sorry, you've made an invalid request. Please <a
href="index.php" class="alert-link">go back</a> and try again.</div>
</div>
</div>
</div>
</div></body>

</html>
```

### **Index.php**

```
<!DOCTYPE html><html
lang="en">
```

```

<head>
<meta charset="UTF-8">
<title>Dashboard</title><link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
<link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/fontawesome/4.7.0/css/fontawesome.min.css">
<scriptsrc="https://code.jquery.com/jquery-3.5.1.min.js"></script>
<script
src="https://cdn.jsdelivr.net/npm/popper.js@1.16.1/dist/umd/popper.min.js"></script>
<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></script>
<style>      .wrapper {          width: 600px;
margin: 0 auto;
      }

tabletrtd:last-child {
width: 120px;
      }
</style>
<script>
      $(document).ready(function () {
          $('[data-toggle="tooltip"]').tooltip();
      });
</script></head>

<body>
<div class="wrapper">
<div class="container-fluid">
<div class="row">
<div class="col-md-12">
<div class="mt-5 mb-3 clearfix">
<h2 class="pull-left">Employees Details</h2>
<a href="create.php" class="btn btn-success pull-right"><i class="fa fa-plus"></i> Add New
Employee</a>
</div>
<?php
          // Include config file
require_once "config.php";

          // Attempt select query execution
$sql = "SELECT * FROM employees";

```

```

if ($result = mysqli_query($link, $sql)) {                                if
(mysqli_num_rows($result) > 0) {
echo '<table class="table table-bordered table-striped">';
echo "<thead>";                                echo "<tr>";                                echo "<th>#</th>";
echo "<th>Name</th>";
echo "<th>Address</th>";                                echo "<th>Salary</th>";
echo "<th>Action</th>";
echo "</tr>";
echo "</thead>";
echo "<tbody>";
while ($row = mysqli_fetch_array($result)) {                                echo "<tr>";
echo "<td>" . $row['id'] .
"</td>";                                echo "<td>" . $row['name'] .
"</td>";                                echo "<td>" . $row['address'] .
"</td>";                                echo "<td>" . $row['salary'] .
"</td>";                                echo "<td>";                                echo '<a
href="read.php?id=' . $row['id'] . '" class="mr-3" title="View Record" data-
toggle="tooltip"><span class="fafa-eye"></span></a>';
echo '<a href="update.php?id=' . $row['id'] . '" class="mr-3" title="Update Record" data-
toggle="tooltip"><span class="fafa-pencil"></span></a>';                                echo '<a
href="delete.php?id=' . $row['id'] . '" title="Delete Record"
datatoggle="tooltip"><span class="fafa-trash"></span></a>';
echo "</td>";                                echo "</tr>";
                                }                                echo
"</tbody>";
echo "</table>";                                // Free
result set
mysqli_free_result($result);
                                } else {
echo '<div class="alert alert-danger"><em>No records were
found.</em></div>';
                                }
                                } else {
echo "Oops! Something went wrong. Please try again later.";
                                }

                                // Close connection
mysqli_close($link);
?>

</div>
</div>
</div>
</div></body>

```



</html>

## **read.php**

<?php

// Check existence of id parameter before processing further

if (isset(\$\_GET["id"]) && !empty(trim(\$\_GET["id"]))) {

    // Include config file

require\_once "config.php";

    // Prepare a select statement

    \$sql = "SELECT \* FROM employees WHERE id = ?";

if (\$stmt = mysqli\_prepare(\$link, \$sql)) {

    // Bind variables to the prepared statement as parameters

mysqli\_stmt\_bind\_param(\$stmt, "i", \$param\_id);

    // Set parameters

    \$param\_id = trim(\$\_GET["id"]);

    // Attempt to execute the prepared statement

if (mysqli\_stmt\_execute(\$stmt)) {

    \$result = mysqli\_stmt\_get\_result(\$stmt);

if (mysqli\_num\_rows(\$result) == 1) {                      /\* Fetch  
result row as an associative array.

    Since the result set contains only one row, we don't need to use a while loop \*/

\$row = mysqli\_fetch\_array(\$result, MYSQLI\_ASSOC);

    // Retrieve individual field values

    \$name = \$row["name"];

    \$address = \$row["address"];

    \$salary = \$row["salary"];

    } else {

        // URL doesn't contain a valid id parameter. Redirect to error page

header("location: error.php");                      exit();

    }

    } else {                      echo "Oops! Something went wrong. Please try  
again later.";

    }

    }

    // Close statement

mysqli\_stmt\_close(\$stmt);

```

    // Close connection    mysqli_close($link);
} else {
    // URL doesn't contain id parameter. Redirect to error page
    header("location: error.php");    exit(); }
?>

<!DOCTYPE html><html
lang="en">

<head>
<meta charset="UTF-8">
<title>View Record</title>
<link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
<style>    .wrapper {        width: 600px;
margin: 0 auto;
    }
</style></head>

<body>
    <div class="wrapper">
<div class="container-fluid">
<div class="row">
<div class="col-md-12">
<h1 class="mt-5 mb-3">View Record</h1>
<div class="form-group">
<label>Name</label>
<p><b><?php echo $row["name"]; ?></b></p>
</div>
<div class="form-group">
<label>Address</label>
<p><b><?php echo $row["address"]; ?></b></p>
</div>
<div class="form-group">
<label>Salary</label>
<p><b><?php echo $row["salary"]; ?></b></p>
</div>
<p><a href="index.php" class="btn btn-primary">Back</a></p>
</div>
</div>
</div>

```

```
</div></body>
```

```
</html>
```

update.php

```
<?php
```

```
// Include config file
```

```
require_once "config.php";
```

```
// Define variables and initialize with empty values
```

```
$name = $address = $salary = "";
```

```
$name_err = $address_err = $salary_err = "";
```

```
// Processing form data when form is submitted
```

```
if ($_SERVER["REQUEST_METHOD"] == "POST") {
```

```
    // Get hidden input value
```

```
$id = $_POST["id"];
```

```
    // Validate name
```

```
    $input_name = trim($_POST["name"]);    if  
(empty($input_name)) {
```

```
        $name_err = "Please enter a name.";
```

```
    } elseif (!filter_var($input_name, FILTER_VALIDATE_REGEXP, array("options" =>  
array("regexp" => "/^[a-zA-Z\s]+$/"))) {        $name_err = "Please enter a valid name.";    }  
else {
```

```
    $name = $input_name; }
```

```
    // Validate address
```

```
    $input_address = trim($_POST["address"]);    if  
(empty($input_address)) {
```

```
        $address_err = "Please enter an address.";
```

```
    } else {
```

```
        $address = $input_address;
```

```
    }
```

```
    // Validate salary
```

```
    $input_salary = trim($_POST["salary"]);    if  
(empty($input_salary)) {
```

```
        $salary_err = "Please enter the salary amount.";
```

```
    } elseif (!ctype_digit($input_salary)) {
```

```
        $salary_err = "Please enter a positive integer value.";
```

```
    } else {
```

```
        $salary = $input_salary;
```

```

    }
    // Check input errors before updating the database
    if (empty($name_err) && empty($address_err) && empty($salary_err)) {
        // Prepare an update statement
        $sql = "UPDATE employees SET name=?, address=?, salary=? WHERE id=?";

        if ($stmt = mysqli_prepare($link, $sql)) {
            // Bind variables to the prepared statement as parameters
            mysqli_stmt_bind_param($stmt, "sssi", $param_name, $param_address,
            $param_salary, $param_id);

            // Set parameters
            $param_name = $name;
            $param_address = $address;
            $param_salary = $salary;
            $param_id = $id;

            // Attempt to execute the prepared statement
            if (mysqli_stmt_execute($stmt)) {
                // Records updated successfully. Redirect to landing page
                header("location: index.php");          exit();
            } else {
                echo "Oops! Something went wrong. Please try again later.";
            }
        }

        // Close statement
        mysqli_stmt_close($stmt);

        // Close connection      mysqli_close($link);
    } else {
        // Check existence of id parameter
        if (isset($_GET["id"]) && !empty(trim($_GET["id"]))) {
            // Get URL parameter
            $id = trim($_GET["id"]);

            // Prepare a select statement
            $sql = "SELECT * FROM employees WHERE id = ?";

            if ($stmt = mysqli_prepare($link, $sql)) {
                // Bind variables to the prepared statement as parameters
                mysqli_stmt_bind_param($stmt, "i", $param_id);

```

```

        // Set parameters
        $param_id = $id;

        // Attempt to execute the prepared statement
        if (mysqli_stmt_execute($stmt)) {
            $result = mysqli_stmt_get_result($stmt);

            if (mysqli_num_rows($result) == 1) {                /* Fetch result
            row as an associative array.
                Since the result set contains only one row, we don't need to use a while loop */
            $row = mysqli_fetch_array($result, MYSQLI_ASSOC);

                // Retrieve individual field values
                $name = $row["name"];
                $address = $row["address"];
                $salary = $row["salary"];
            } else {
                // URL doesn't contain a valid id. Redirect to error page
                header("location: error.php");                exit();
            }
        } else {
            echo "Oops! Something went wrong. Please try again later.";
        }
    }

    // Close statement                mysqli_stmt_close($stmt);

    // Close connection                mysqli_close($link);
    } else {
        // URL doesn't contain id parameter. Redirect to error page                header("location:
        error.php");                exit();
    }
}
?>

<!DOCTYPE html><html
lang="en">

<head>
<meta charset="UTF-8">
<title>Update Record</title>

```

```

<link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
<style>    .wrapper {        width: 600px;
margin: 0 auto;
    }
</style></head>

<body>
<div class="wrapper">
<div class="container-fluid">
<div class="row">
<div class="col-md-12">
<h2 class="mt-5">Update Record</h2>
<p>Please edit the input values and submit to update the employee record.</p>
<form action="<?php echo
htmlspecialchars(basename($_SERVER['REQUEST_URI'])); ?>" method="post">
<div class="form-group">
<label>Name</label>
<input type="text" name="name" class="form-control <?php echo
(!empty($name_err)) ? 'is-invalid' : "; ?>" value="<?php echo $name; ?>">
<span class="invalid-feedback"><?php echo $name_err; ?></span>
</div>
<div class="form-group">
<label>Address</label>
<textarea name="address" class="form-control <?php echo
(!empty($address_err)) ? 'is-invalid' : "; ?>"><?php echo $address; ?></textarea>
<span class="invalid-feedback"><?php echo $address_err; ?></span>
</div>
<div class="form-group">
<label>Salary</label>
<input type="text" name="salary" class="form-control <?php echo
(!empty($salary_err)) ? 'is-invalid' : "; ?>" value="<?php echo $salary; ?>">
<span class="invalid-feedback"><?php echo $salary_err; ?></span>
</div>
<input type="hidden" name="id" value="<?php echo $id; ?>" />
<input type="submit" class="btn btn-primary" value="Submit">
<a href="index.php" class="btn btn-secondary ml-2">Cancel</a></form>
</div>
</div>
</div>
</div></body>

```

</html>

**Output:**

Employees Details

+ Add New Employee

<b>PIRENS Institute of Business Management and Administration, Loni BK.</b>
<b>Seat No:4956</b>
<b>Student Name : Vishal Shridhar Vishwakarma</b>
<b>Subject Name: IT23L AIT</b>
<b>Program Title: 14) Create angular project which will demonstrate the usage of component directive, Attribute Directive and Structural Directive.</b>

DIRECTIVE TYPES	DETAILS
Components	Used with a template. This type of directive is the most common directive type.
Attribute directives	Change the appearance or behaviour of an element, component, or another directive.
Structural directives	Change the DOM layout by adding and removing DOM elements.

### Components Directive

Component directive is used to specify the HTML templates. It has structure design and the working pattern of how the component should be processed, instantiated and used at runtime. It is the most commonly-used directive in any Angular project. Above, we discussed the component, that should be the Component Directive.

- sample-page.component.css: contains all the CSS styles for the component.
- sample-page.component.html: contains all the HTML code used by the component to display itself.
- sample-page.component.ts: contains all the code used by the component to control its behaviour.

### Structural Directive



Structural Directive changes the DOM layout design and structure. The main usage of Structural Directive is for manipulating and making run-time changes on the DOM elements. You can easily recognize it by an asterisk (\*) symbol. Let's consider a code for instance. <div

```
*ngIf="emp">
  {{ emp.name }}
</div>
```

```
<ul>
<li *ngFor="let employee of Employees">
  {{ employee.name }}
</li></ul>
```

```
<div [ngSwitch]="emp?.designation">
<ng-container *ngSwitchCase="'developer'">
<app-emp-developer [emp]="emp"></app-emp-developer>
</ng-container>
```

```
<ng-container *ngSwitchCase="'tester'">
<app-emp-tester [emp]="emp"></app-emp-tester>
</ng-container>
</div>
```

### **NgIf case study:**

It is the simplest structure directive and easy to understand. Boolean expression can make entire DOM appear and disappear.

```
<p *ngIf="true">Expression true,makes entire DOM Appears. </p>
```

```
<p *ngIf="false">Expression true,makes entire DOM Appears. </p>
```

NgIf directive becomes property binding when you use it on<ng-template>.

```
<ng-template[ngIf]="emp">
<div class="name">{{ emp.name }}</div>
</ng-template>
```

### **NgFor case study:**

It is like a loop. You can use an Array to iterate values. In addition, ngfor also becomes property binding when you use it on <ng-template>.

```
<div *ngFor="let emp of employees; let i=index; trackBy: trackById" > ({{i}})
```

```

{{emp.name}}
</div>
<ng-template ngFor let-hero [ngForOf]="heroes" let-i="index" let-odd="odd" [ngForTrackBy]="trackById">
<div [class.odd]="odd">({{i}}) {{hero.name}}</div>
</ng-template>

```

## Attribute Directive

An Attribute Directive changes the appearance or behaviour of a DOM element. However, it looks like a regular HTML attribute. In Attribute directive, we can easily implement it by simply specifying the selector. You can implement the directive behaviour on the controller class.

For instance, Let's consider an example to change the text colour while hovering over the text, by using the attribute directive.

```

import { Directive, ElementRef, HostListener } from '@angular/core';
@Directive({ selector: '[highlight-text]'
}) export class HighlightDirective {
  constructor(private el: ElementRef) { }
  @HostListener('mouseenter') onMouseEnter() { this.el.nativeElement.style.backgroundColor
    = 'blue'; }
    @HostListener('mouseleave') onMouseLeave() {
      this.el.nativeElement.style.backgroundColor = 'black';
    }
  }
}

```

You can use the directive in HTML elements through selector name as follows.

```
<p highlight-text>Text to Highlight</p>
```

<b>PIRENS Institute of Business Management and Administration, Loni BK.</b>
<b>Seat No:4956</b>
<b>Student Name : Vishal Shridhar Vishwakarma</b>
<b>Subject Name: IT23L AIT</b>
<b>Program Title: 15) Program for basic operations, array and user interface handling.</b>

**Code:**

```
<!DOCTYPE html>
```

```
<html>
```

```
<script  
src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular.min.js"></script><body>
```

```
<div ng-app="" ng-init="points=[1,15,19,2,40]">
```

```
<p>Array elements are :</p>
```

```
<ul>
```

```
<li ng-repeat="x in points">
```

```
{ { x } }
```

```
</li></ul>
```

```
<p>Enter Index of element : <input type="text" ng-model="elt"></p>
```

```
<p>The points[ { { elt } } ] is <span ng-bind="points[elt]"></span></p>
```

```
</div>
```

```
</body>
```

```
</html>
```

**Output:**

---

Array elements are :

- 1
- 15
- 19
- 2
- 40

Enter Index of element :

The points[2] is 19

<b>PIRENS Institute of Business Management and Administration, Loni BK.</b>
<b>Seat No: 4956</b>
<b>Student Name : Vishal Shridhar Vishwakarma</b>
<b>Subject Name: IT23L AIT</b>
<b>Program Title: 16) Program to demonstrate the session management using various techniques</b>

**Code:**

**Session2.php**

```
<?phpsession_start();
```

```
if (isset($_POST['login']) &&isset($_POST['pass'])) {
```

```
    $login = $_POST['login'];
```

```
    $pass = $_POST['pass'];
```

```
    // Perform authentication checks here (e.g., against a database)
```

```
    // If the login is successful, set session variables and redirect to a secure page
```

```
    $_SESSION['login'] = $login;
```

```
    $_SESSION['pass'] = $pass;    header("Location:
```

```
secure_page.php");    exit(); }
```

```
if (isset($_SESSION['login']) &&isset($_SESSION['pass'])) {
```

```
    $login = $_SESSION['login'];    echo
```

```
"Hello, $login!";
```

```
} else {
```

```
    // Display the login form
```

```
    ?>
```

```
<html>
```

```
<body>
```

```
<form name="frm1" action="<?php echo $_SERVER['PHP_SELF']; ?>" method="post">
```

```
<table>
```

```
<tr>
```

```
<td>Login:</td>
```

```
<td><input type="text" name="login" id="login"></td>
```

```
</tr>
```

```
<tr>
```

```
<td>Password:</td>
```

```
<td><input type="password" name="pass" id="pass"></td>
```

```
</tr>
```

```

<tr>
<td colspan="2">
<input type="submit" value="Login">
<input type="reset" value="Reset">
</td>
</tr>
</table>
</form>
<a href="session3.php">Click here to visit the next page</a>
</body>
</html>
<?php
}
?>

```

### **Session3.php**

```

<?phpsession_start();

if (isset($_SESSION['login']) &&isset($_SESSION['pass'])) {
    $login = $_SESSION['login'];    echo
    "Hello, $login!";
    unset($_SESSION['login']);
} else {
    echo '<a href="session2.php">You are not logged in. Click here to log in</a>'; }
?>

```