# **Mobile Programming**Screen Orientation API

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Ques 1) Develop an app to alert the screen type and its angle whenever screen changes.

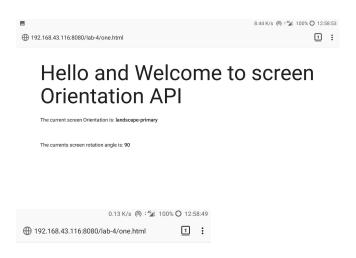
#### Sol) Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width,</pre>
initial-scale=1.0">
   <meta http-equiv="X-UA-Compatible" content="ie=edge">
   <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0-rc.2
/css/materialize.min.css">
   <script
src="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0-rc.2/
js/materialize.min.js"></script>
   <title>Screen Orientation API example</title>
```

```
</head>
<body>
  <div class="container">
       <h1>Hello and Welcome to screen Orientation API</h1>
       The current screen Orientation is: <strong</p>
id="screen-type-value"></strong>
       <br>
       The currents screen rotation angle is: <strong</p>
id="screen-angle-value">
  </div>
</body>
<script>
   (() => {
       let type = document.getElementById('screen-type-value');
       let angle = document.getElementById('screen-angle-value');
       type.innerHTML = screen.orientation.type;
       angle.innerHTML = screen.orientation.angle;
       screen.orientation.onchange = () => {
          let type = document.getElementById('screen-type-value');
          let angle =
document.getElementById('screen-angle-value');
          type.innerHTML = screen.orientation.type;
```

```
angle.innerHTML = screen.orientation.angle;
}
})();
</script>
</html>
```

#### Screenshots:



### Hello and Welcome to screen Orientation API

The current screen Orientation is: portrait-primary

The currents screen rotation angle is: 0

## Ques 2) When mouseover on a description line for an web page should alert about current screen properties.

#### Sol) Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width,</pre>
initial-scale=1.0">
   <meta http-equiv="X-UA-Compatible" content="ie=edge">
   <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0-rc.2"
/css/materialize.min.css">
   <script
src="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0-rc.2/
js/materialize.min.js"></script>
   <title>Screen Orientation API example</title>
</head>
<body>
   <div class="container">
       <div class="row">
```

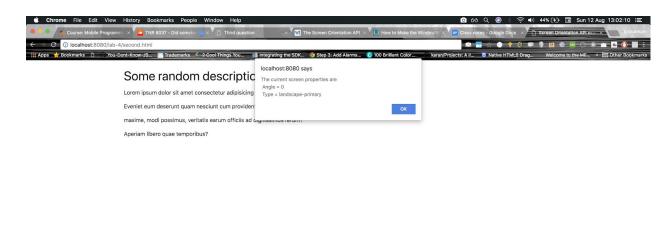
```
<div class="col m12 s12">
              <h4>Some random description</h4>
              <div id="description">
                  Lorem ipsum dolor sit amet consectetur
adipisicing elit. 
                  Eveniet eum deserunt quam nesciunt cum provident
repudiandae fuga,
                  maxime, modi possimus, veritatis earum
officiis ad dignissimos rerum?
                  Aperiam libero quae temporibus?
              </div>
          </div>
      </div>
  </div>
</body>
<script>
   (() => {
      let desc = document.getElementById('description');
      desc.onmouseover = () => {
          alert(`The current screen properties are\n Angle =
${screen.orientation.angle}\n Type = ${screen.orientation.type}`);
      }
```

})();

</script>

</html>

#### **Screenshots:**





#### Ques 3) Implement locking and unlocking of screen orientation using buttons.

**Sol)** Actually, in order for the screen orientation locking to work in mobile phones the user needs to have given the permission for the app to go into full screen.

#### Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width,</pre>
initial-scale=1.0">
   <meta http-equiv="X-UA-Compatible" content="ie=edge">
   <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0-rc.2
/css/materialize.min.css">
   <script
src="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0-rc.2/
js/materialize.min.js"></script>
   <title>Third question</title>
</head>
<body id="full-screen">
   <button class="btn btn-waves" onclick="goFullScreen()">Go
fullscreen</button>
   <div class="container">
       <div class="row">
           <div class="col m4 s12">
               <button type="button" class="btn btn-waves"</pre>
type="button" id="lock-orientation">Lock orientation</button>
```

```
</div>
           <div class="col m4 s12">
               <button type="button" class="btn btn-waves"</pre>
type="button" id="unlock-orientation">Unlock orientation</button>
           </div>
           <div class="col m4 s12">
               <button type="button" class="btn btn-waves"</pre>
type="button" id="alert-screen">Alert current screen type</button>
           </div>
       </div>
   </div>
</body>
<script>
   async function goFullScreen() {
       try{
           let element = document.getElementById('full-screen');
           if (element.requestFullscreen) {
               element.requestFullscreen();
           else if(element.mozRequestFullScreen) {
               element.mozRequestFullScreen();
```

```
else if(element.webkitRequestFullscreen) {
               element.webkitRequestFullscreen();
           }
           else if(element.msRequestFullscreen) {
               element.msRequestFullscreen();
       }
       catch(err) {
           alert(err);
   (async () => {
       document.getElementById('lock-orientation').onclick = async
(event) => {
           try{
               // Lock the screen in the cureent screen orientation
               await
screen.orientation.lock(screen.orientation.type);
           }
           catch(err) {
```

```
alert(err);
       }
       document.getElementById('unlock-orientation').onclick =
async (event) => {
           try{
               screen.orientation.unlock();
           catch(err) {
               alert(err);
       }
       document.getElementById('alert-screen').onclick = (event) =>
           alert(screen.orientation.type);
       }
   })();
</script>
</html>
```

#### **Screenshots:**



