

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,
initial-scale=1.0">

    <meta http-equiv="X-UA-Compatible" content="ie=edge">

    <link rel="stylesheet"
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>
```

```
angle.innerHTML = screen.orientation.angle;

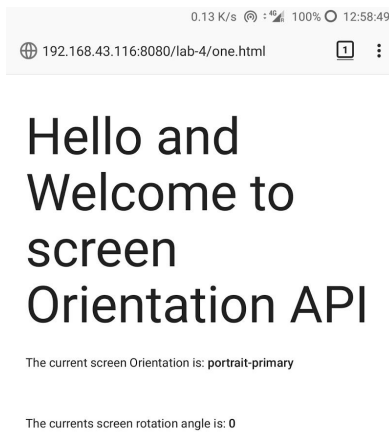
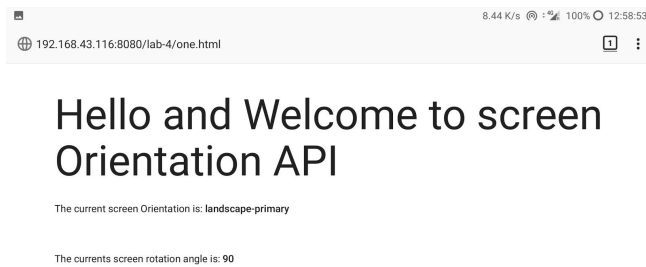
    }

    }) ();

</script>

</html>
```

Screenshots:



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,
initial-scale=1.0">

    <meta http-equiv="X-UA-Compatible" content="ie=edge">

    <link rel="stylesheet"
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>

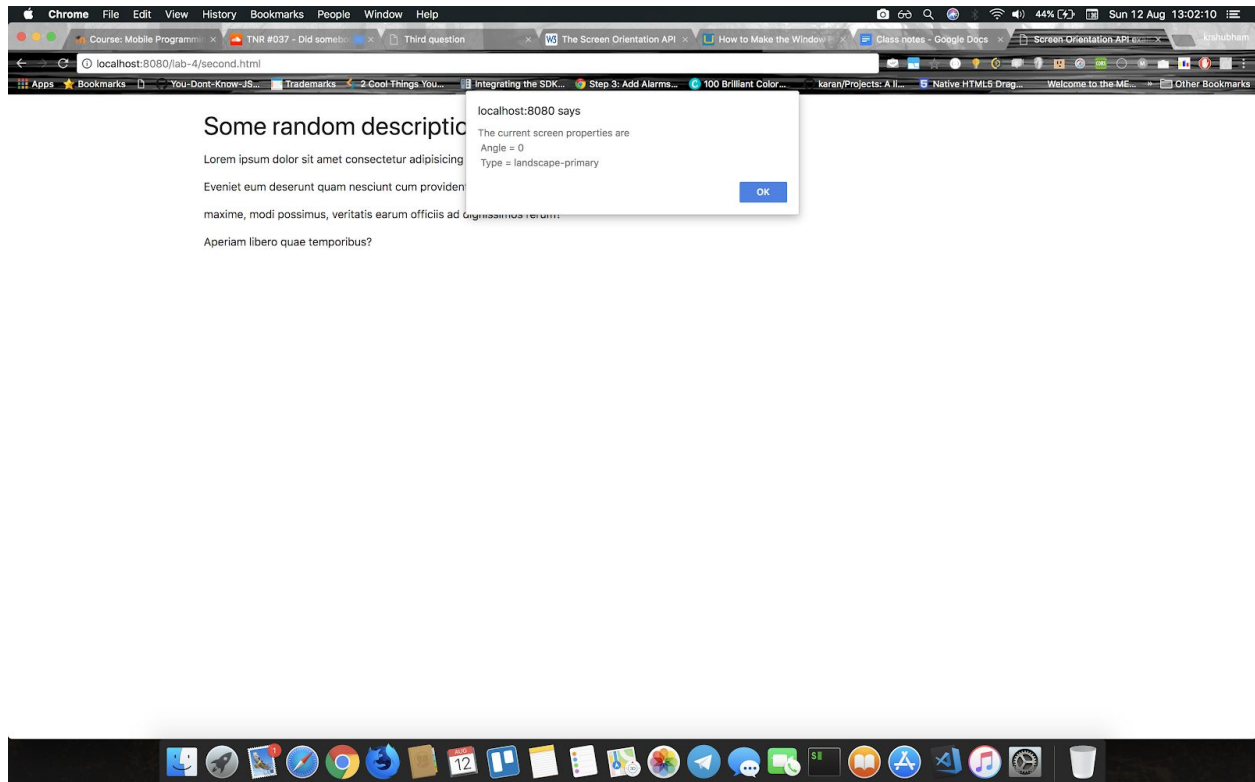
    <div class="container">

        <div class="row">
```



```
    }) ();  
  
</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,
initial-scale=1.0">

    <meta http-equiv="X-UA-Compatible" content="ie=edge">

    <link rel="stylesheet"
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"
type="button" id="lock-orientation">Lock orientation</button>
```

```
</div>

<div class="col m4 s12">

    <button type="button" class="btn btn-waves"
type="button" id="unlock-orientation">Unlock orientation</button>

</div>

<div class="col m4 s12">

    <button type="button" class="btn btn-waves"
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:

