

PROJECT REPORT

(Project Term August-December, 2017)

Student Feedback System

Submitted by

Name: Md Jubair Ayeshi

Reg No: 11411787

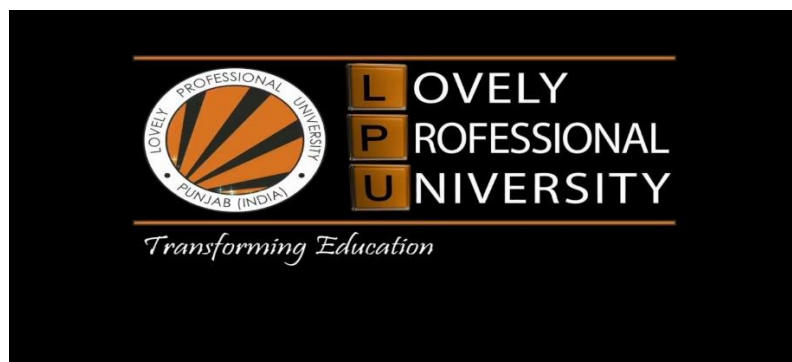
Course Code - CSE 218

Under the Guidance of

Roshan Srivastava

Asst. Professor (CSE)

School of Computer Science and Engineering



DECLARATION

I hereby declare that the project work entitled (“Student Feedback System”) is an authentic record of our own work carried out as requirements of Progressive Web App for the award of B. Tech degree in Computer Science & Engineering from Lovely Professional University, Phagwara, under the guidance of Mr. Roshan Srivastava, during August to December 2017. All the information furnished in this project report is based on our own intensive work and is genuine.

Name: Md Jubair Ayeshi

Registration Number: 11411787

Signature of Student:

Date:

Acknowledgement

We are using this opportunity to express my gratitude to everyone who supported us throughout the course of this B.Tech project. We are thankful for their aspiring guidance, invaluable constructive criticism and friendly advice during the project work. We are sincerely grateful to them for sharing their truthful and illuminating views on a number of issues related to the project.

We express our warm thanks to Mr. Roshan Srivastava for their support and guidance at Lovely Professional University.

Thank you,

1.1 Introduction:

We have developed Student Feedback System to provide feedback in an easy and quick manner to the college faculty. So, we call it as Faculty Feedback System which delivers via student staff interface as online system which acting as Service Provider.

By using this application, we can provide fast feedback about the college lecturers by student on time to the faculty as they referred in online system.

This project has three kinds of module student, staff, and admin. The student can give feedback to their respective lecturers. This feedback report is checked by their main Faculties. He can view grade obtained by the lecturers and give this report to the principal for further counseling to the college staff.

1.2 Objective:

The main aim and objective is to plan and program web application for any domain. We have to apply the best software engineering practice for web application. As a web application developer, I was asked to developed an "Student Feedback System" using HTML, CSS, JAVASCRIPT and MySQL using the concept of Progressive Web App.

The main objective was to create a unique and useful "Faculty Feedback System" with exceptional quality and service that differentiates it from other feedback system.

1.3 Scope:

The scope of Faculty Feedback portal is as follows:

- The Faculty Feedback portal provides an easier and quicker way to give rating to the colleges staffs.
- Student can rate their faculty members according to their teaching style, knowledge, discipline and punctuality at any time from any place.
- Through this site data of faculty members and student were managed in quite a simple manner.

2.1 Requirement Specification:

To run this project on various platform we need some hardware and software to support this project.

PROJECT DESCRIPTION

This system included three modulus which were described below in details:

REQUIREMENT SPECIFICATION

- Admin module
- Student module
- Faculty module

The core functionalities that are to be included in the system are the follows: -

ADMIN MODULE

- Can insert/update/delete/new student (But, not Feedback).
- Can insert/update/delete/new staff member.

- View the final feedback report

STUDENT MODULE

- Give feedback to their respective department staff members.
- Can give comments/Message to the respective staff members

FACULTY MODULE

- Can view their only own comments/message and Rating Criteria given by students.
- Can view total evaluated feedback.

2.2 HARDWARE SPECIFICATIONS:

Processor: Dual core

RAM: 512 mb

Memory: 10 GB

2.3 SOFTWARE SPECIFICATIONS:

Technologies: HTML, CSS, JAVASCRIPT

Database: MySQL

Editor: Brackets, Notepad++

Server: Web Server (200 OK!)

3.1 Service Worker:

A service worker is a script that your browser runs in the background, separate from a web page, opening the door to features that don't need a web page or user interaction. Today, they already include features like push notifications and background sync. In the future, service workers will support other things like periodic sync or geofencing. The core feature is the ability to intercept and handle network requests, including programmatically managing a cache of responses.

The reason this is such an exciting API is that it allows you to support offline experiences, giving developers complete control over the experience.

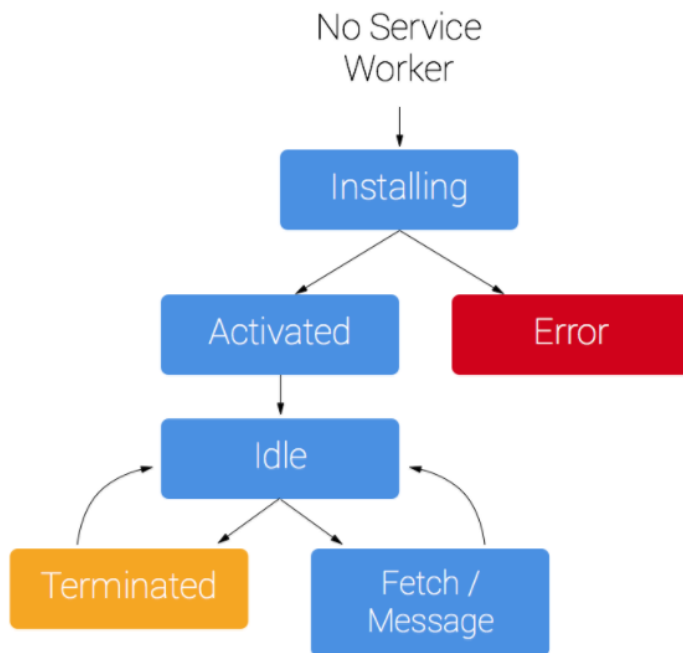
3.2 The service worker life cycle:

A service worker has a lifecycle that is completely separate from your web page.

To install a service worker for your site, you need to register it, which you do in your page's JavaScript. Registering a service worker will cause the browser to start the service worker install step in the background.

Typically, during the install step, you'll want to cache some static assets. If all the files are cached successfully, then the service worker becomes installed. If any of the files fail to download and cache, then the install step will fail and the service worker won't activate (i.e. won't be installed). If that happens, don't worry, it'll try again next time. But that means if it does install, you know you've got those static assets in the cache. When installed, the activation

step will follow and this is a great opportunity for handling any management of old caches, which we'll cover during the service worker update section.



Service-Worker.js:

```
var cacheName = 'weatherPWA-step-6-1';
```

```
    '/css/feedback_form.css',
```

```
    '/login.html',
```

```
    '/feedback_form.html',
```

```
    '/faculty_acc.html',
```

```
    '/Admin.html',
```

```
    '/student_account.html',
```

```
    '/js/script.js',
```

```
    '/js/dropdown.js',
```

```
    '/js/index.js',
```

```
    '/js/student_acc.js',
```

```
    '/css/Admin.css',
```

```
    '/css/faculty_acc.css',
```

```
    '/css/feedback_form.css',
```

```
    '/css/Home.css',
    '/css/student_acc.css',
    '/css/style.css',
    '/css/image/14954343986.jpg',
    '/css/image/143288557211.jpg',
    '/css/image/149543429616.jpg',
    '/css/image/LPU-medical-courses-2.jpg',
    '/image/14954343986.jpg',
    '/image/143288557211.jpg',
    '/image/149543429616.jpg',
    '/image/149543429625.jpg',
    '/image/LPU-medical-courses-2.jpg',
];
```

```
self.addEventListener('install', function(e) {
  console.log('[ServiceWorker] Install');
  e.waitUntil(
    caches.open(cacheName).then(function(cache) {
      console.log('[ServiceWorker] Caching app shell');
      return cache.addAll(filesToCache);
    })
  );
});

self.addEventListener('activate', function(e) {
  console.log('[ServiceWorker] Activate');
  e.waitUntil(
    caches.keys().then(function(keyList) {
      return Promise.all(keyList.map(function(key) {
        if (key !== cacheName ) {
          console.log('[ServiceWorker] Removing old cache', key);
          return caches.delete(key);
        }
      })
    )
  );
});
```

```

return self.clients.claim();

});

self.addEventListener('fetch', function(event) {
    console.log('[Service Worker] Fetch', event.request.url);

    event.respondWith(

        caches.match(event.request).then(function(response) {

            return response || fetch(event.request);

        })

    );
});

self.addEventListener('notificationclick',function(e) {

    var notification = e.notification;

    var primaryKey = notification.data.primaryKey;

    var a = e.action;

    if(a === 'close'){

        notification.close();

    }else{

        clients.openWindow('https://www.google.com');

        notification.close();

    }

    //console.log("Notification Clicked right now "+a);

});

self.addEventListener('notificationclose',function(e) {

    var n = e.notification;

    var p = n.data.primaryKey;

    console.log('Lovely Notification Closed '+p);

});

```

3.3 HTML files:

3.3.1 Admin.html:

```

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

<head><meta charset="UTF-8"><meta name="theme-color" content="#EB3C17"/>

<meta name ="viewport" content ="width=device-width, initial-scale=1, shrink-to-fit=no">

    <meta http-equiv="x-ua-compatible" content ="ie=edge"><title> FEEDBACK FORM </title>

<link rel="stylesheet" href="css/Admin.css"><SCRIPT language=JavaScript type=text/JavaScript>

```



```

</SCRIPT>

</head><body style="background: #F6F3EC"><div class="feedback"><div id="wrap"><div id="regbar"><div id="navthing">

<div class="record"><button type="button" onclick="window.location.href='login.html'" style="float: right" class="logout log">Log out</button>

<h2>Admin Panel</h2><center><form><fieldset class="feedback form"><h3 class="record r1"><u>Edit Record</u></h3><table>

<tr><td align="right">Faculty Full name::</td><td align="left"><input type="text" name="fullname" placeholder="Md Jubair AYeshi"></td>

</tr><tr><td align="right"> Faculty Id:</td><td align="left"><input type="number" name="facid" placeholder="11411787"></td>

<td align="left"> <input type="submit" value="Search Record" class="btn success"></tr><tr>

<td align="right">Departments:</td><td align="left"><select name="Departments:"><option value="CIVIL">CIVIL</option>

<option value="ME">ME</option><option value="CSE">CSE</option><option value="BIOTECH">BIO TECH</option>

<option value="ECE">ECE</option> <option value="EEE">EEE</option></select>

</td></tr><tr><td align="right">HOD:</td><br>

<td align="left"><input type="radio" name="hod" value="yes" checked> YES</td><td align="left"><input type="radio" name="hod"

value="no">NO</td></tr><tr><td align="right"> Designation:</td><td align="left"><input type="text" name="designation"></td></tr><tr>

<td align="right"> Qualification:</td><td align="left"><input type="text" name="qualification"></td></tr><tr>

<td align="right"> Experience:</td><td align="left"><input type="number" name="experience"></td></tr><tr>

<td align="right"> Area of Intrest:</td><td align="left"><input type="text" name="areaofintrest"></td></tr><tr>

<td align="right"> Field Of Reasearch:</td>

<td align="left"><input type="text" name="fieldofresearch"></td>

</tr> <tr><td align="right"> Email:</td><td align="left"><input type="email" name="email"></td></tr><tr>

<td align="right">Mobileneno:</td><td align="left"><input type="tel" name="usrtel" placeholder="9058815957"></td> </tr><tr>

<td align="right">Gender:</td><br> <td align="left"><input type="radio" name="gender" value="male" checked> Male</td>

<td align="left"><input type="radio" name="gender" value="female"> Female</td>

<td align="left"><input type="radio" name="gender" value="other"> Other</td>

</tr> <tr>

<td align="right"><input type="submit" value="Insert Record" class="btn success"></td>

<td align="left"><input type="submit" value="Delete Record" class="btn success"></td>

<td align="right"><input type="submit" value="Update Record" class="btn success"></td>

<td align="right"><input type="submit" value="Display Record" class="btn success"></td>

</tr>

</table>

</fieldset>

</form>

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

</body>

</html>

```

3.3.2 Faculty_acc.html:

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

<meta charset="UTF-8"><meta name="theme-color" content="#EB3C17"/>

<meta name = "viewport" content = "width=device-width, initial-scale=1, shrink-to-fit=no">

<meta http-equiv="x-ua-compatible" content = "ie=edge"><title> STUDENT ACCOUNT </title>

<link rel="stylesheet" href="css/faculty_acc.css"><SCRIPT language=JavaScript type=text/JavaScript></SCRIPT>

</head>

<body>

<div id ="wrap"><div id="regbar"><div id="navthing">

<button type="button" onclick="window.location.href='login.html'" style="float: right"class="logout log">Log out</button>

<h2>Create an Faculty Account</h2><center><form><fieldset><table><tr>

<td align="right">Faculty Full name::</td> <td align="left"><input type="text" name="fullname" placeholder="Md Jubair
AYeshi"></td></tr><tr>

<td align="right"> Faculty Id:</td><td align="left"><input type="number" name="facid" placeholder="11411787"></td></tr><tr>

<td align="right">Departments:</td><td align="left"><select name="departments"><option value="CSE">CSE</option>

<option value="ECE">ECE</option><option value="ME">ME</option><option value="CIVIL">CIVIL</option></select></td> </tr>

<tr><td align="right"> Emailid:</td><td align="left"><input type="email" name="email" autocomplete="on"></td></tr><tr>

<td align="right">Password:</td>

<td align="left"><input type="password" name="pass" ></td>

</tr><tr><td align="right">Mobilen0:</td><td align="left"><input type="tel" name="usrtel" placeholder="9058815957"></td>

</tr><tr><td align="right">Gender:</td><td align="left"><input type="radio" name="gender" value="male" checked> Male</td><td
align="left"><input type="radio" name="gender" value="female"> Female</td><td align="left"><input type="radio" name="gender"
value="other"> Other</td></tr><tr><td align="right"> <input type="submit" value="Submit" class ="btn success"></td></tr></table></fieldset>

</form><script src="js/script.js"></script></body>

</html>
```

3.3.3 Feedback_form.html

```
<!DOCTYPE html>

<html lang="en"><head><meta charset="UTF-8"><meta name="theme-color" content="#EB3C17"/><meta name = "viewport" content
="width=device-width, initial-scale=1, shrink-to-fit=no"><meta http-equiv="x-ua-compatible" content = "ie=edge"><title> FEEDBACK FORM
</title><link rel="stylesheet" href="css/feedback_form.css"><SCRIPT language=JavaScript type=text/JavaScript></SCRIPT></head><body
style="background:#COCOCO"><div class="feedback"><div id ="wrap">

<div id="regbar"><div id="navthing">

<button type="button" onclick="window.location.href='login.html'" style="float:right"class="logout log">Log out</button>

<h2>Fill the feedback form</h2><center>

<strong>.....Please Choose Rating the Following CRITERIA.....<br>

<i>Kindly provide your asessment on the five point in respect of the following parameters.</i><br><br>

<b>Outstanding=5 || Very good=4 || Good=3 || Satisfactory=2 || Unsatisfactory=1</b><br><br>

<i><strong>Please indicate your evaluation on each parameter by putting in appropriate number in the column opposite the
parameter.</strong></i><br><br><form id="frm1"><fieldset class ="feedback form"><table><tr>

<td align="right">Choose Faculty</td><td align="left"><select name="Faculty"> <option value="0">Mr.Ramesh Dixit</option><option
value="1">Mr.Jitendra Arora</option>
```

```

<option value="2">Mrs.Sneha Goyal</option><option value="3">Mr.Sunil Bhardwaj</option><option value="4">Mrs.Akansha
Tripathi</option>

    <option value="5">Mr.Dinesh Kumar</option></select></td></tr><tr><td align="right">Departments:</td><td align="left"><select
name="departments"><option value="CSE">CSE</option><option value="ECE">ECE</option><option value="ME">ME</option> <option
value="CIVIL">CIVIL</option>

</select></td></tr><tr> <td align="right">Attitude:</td><td align="left"><select name="Attitude" id="atti" >

<option value="0">0</option><option value="1">1</option> <option value="2">2</option><option value="3">3</option><option
value="4">4</option><option value="5">5</option></select></td></tr>

<tr> <td align="right">Knowledge of Faculty:</td><td align="left"><select name="Knowledge of Faculty" id="kof" >

    <option value="0">0</option><option value="1">1</option><option value="2">2</option><option value="3">3</option>

<option value="4">4</option> <option value="5">5</option></select></td></tr><tr>

<td align="right">Communication Skill:</td> <td align="left"><select name="Communication Skill" id="cs" >

    <option value="0">0</option><option value="1">1</option><option value="2">2</option><option value="3">3</option><option
value="4">4</option><option value="5">5</option></select></td></tr><tr>

<td align="right">Behaviour:</td><td align="left"><select name="Behaviour" id="beh" >

    <option value="0">0</option><option value="1">1</option>

    <option value="2">2</option><option value="3">3</option><option value="4">4</option><option
value="5">5</option></select></td></tr><tr><td align="right">Teaching Aids:</td><td align="left"><select name="Teaching Aids"
id="ta"><option value="0">0</option> <option value="1">1</option><option value="2">2</option><option value="3">3</option><option
value="4">4</option><option value="5">5</option></select></td> </tr><tr><td align="right">Presentation skill:</td><td align="left"><select
name="Presentation skill" id="ps"><option value="0">0</option><option value="1">1</option> <option value="2">2</option>

<option value="3">3</option><option value="4">4</option><option value="5">5</option>

</select></td></tr><tr>

<td align="right">Total:</td>

    <td align="left"><input type="text" name="total" id="total" onfocus="myFunction()"></td>

</tr> <tr><td align="right">Message:</td><td align="left"><textarea name="message" rows="10" cols="30">The cat was playing in the
garden.</textarea></td></tr> </table>

<span><p>-----General assessment taking all the parameter-----</p></span> <br><p><u>""Total Rating""</u></p><p>Outstanding-25
to 30</p><p>Very Good-20 to 25</p><p>Good-15 to 20</p><p>Satisfactory-10 to 15</p><p>Unsatisfactory-5 to 10</p><input type="submit"
value="Submit Feedback"class ="btn success" ><input type="button" value="Clear" onclick="myFunction1()" class ="btn
success"></fieldset></form><script>

function myFunction() {var e = document.getElementById("atti");var value1 = (e.options[e.selectedIndex].value); var f =
document.getElementById("kof");var value2 =parseInt(f.options[f.selectedIndex].value);var g = document.getElementById("cs");var value3
=parseInt(g.options[g.selectedIndex].value); var h = document.getElementById("beh");var value4 = parseInt(h.options[h.selectedIndex].value);

var i = document.getElementById("ta");

var value5 = parseInt(i.options[i.selectedIndex].value);

var j = document.getElementById("ps");

var value6 = parseInt(j.options[j.selectedIndex].value);

var total=parseInt(value1)+parseInt(value2)+parseInt(value3)+parseInt(value4)+parseInt(value5)+parseInt(value6);

document.getElementById("total").value=total}

</script>

<script>

function myFunction1() { document.getElementById("frm1").reset();}</script><script src="js/script.js"></script>

</body>

</html>

```

3.3.4 Home23.html:

```
<!DOCTYPE html>

<html lang = "en">

<head><meta charset="UTF-8"><meta name="theme-color" content="#EB3C17"/>

<meta name = "viewport" content = "width=device-width, initial-scale=1, shrink-to-fit=no"><meta http-equiv="x-ua-compatible" content
="ie=edge"><title>UI LOGIN </title><link rel="stylesheet" href="css/Home.css">

<SCRIPT language=JavaScript type=text/JavaScript></SCRIPT>

</head><body><div class="container"><button type="submit" onclick="window.location.href='login.html'" style="float: right" class="logout
log">Log out</button><a href="#Home23">Home</a><div class="dropdown">

<button class="dropbtn" onclick="myFunction()">Register</button> <div class="dropdown-content" id="myDropdown">

<a href="student_account.html">Student</a> <a href="faculty_acc.html">Faculty</a></div></div>

<a href="feedback_form.html">Feedback</a> <a href="Admin.html">Admin</a>

</div><script src="js/script.js"></script></body>

<script src="js/dropdown.js"></script>

</html>
```

3.3.5 Login.html:

```
<!DOCTYPE html><html lang ="en"><head><meta charset="UTF-8"><meta name="theme-color" content="#EB3C17"/>  
  
<meta name = "viewport" content = "width=device-width, initial-scale=1, shrink-to-fit=no"><meta http-equiv="x-ua-compatible" content  
="ie=edge">  
  
<title>UI LOGIN </title><link rel="stylesheet" href="css/style.css"><link rel="manifest" href="manifest.json">  
  
<SCRIPT language=JavaScript type=text/Javascript></SCRIPT>  
  
</head>  
  
<body>  
  
<button disabled class="js-push-btn">Enable Push Messaging</button><button class="js-notify-btn">Notify me!</button>  
  
<section class="js-sub-endpoint" style="display:none;width:80%"><h3>Subscription Object:</h3>  
  
<code class="js-subscription-json"></code><br><br><br><h3>Endpoint URL:</h3>  
  
<code class="js-endpoint-url"></code> </section><div id ="wrap"><div id="regbar"><div id="navthing"><h2><a href="#"  
id="loginform">Login</a></h2><div class="login"><div class="arrow-up"></div><div class="formholder"><div class="randompad">  
  
<form action="Home23.html"><fieldset><label name="email">Email</label>  
  
<input type="text" value="example@example.com" class ="email name"/><br><label name="password">Password</label>  
  
<input type="password" class ="email pass "/><br><input type="submit" value="Login" class ="btn success" />&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&~  
</fieldset>  
  
</form>  
  
</div></div></div></div></div></div>  
  
<script src='http://cdnjs.cloudflare.com/ajax/libs/jquery/2.1.3/jquery.min.js'>  
  
</script>  
  
<script src="js/index.js"></script>  
  
<script src="js/script.js"></script>  
  
</body>  
  
</html>
```

3.3.6 Student_acc.html:

```
<!DOCTYPE html>

<html lang = "en"><head><meta charset="UTF-8"><meta name="theme-color" content="#EB3C17"/><meta name = "viewport" content
="width=device-width, initial-scale=1, shrink-to-fit=no"><meta http-equiv="x-ua-compatible" content = "ie=edge">

<title> STUDENT ACCOUNT </title><link rel="stylesheet" href="css/student_acc.css">

<SCRIPT language=JavaScript type=text/JavaScript></SCRIPT>

</head>

<body>

<button type="button" onclick="window.location.href='login.html'" style="float: right"class="logout log">Log out</button>

<div class="slideshow-container"><div class="mySlides fade"><div class="numbertext">1 / 3</div><div class="text">Caption Text</div></div><div class="mySlides fade"><div class="numbertext">2 / 3</div><div class="text">Caption Two</div></div><div class="mySlides
fade"><div class="numbertext">3 / 3</div><div class="text">Caption
Three</div></div><a class="prev" onclick="plusSlides(-1)">&#10094;</a><a class="next" onclick="plusSlides(1)">&#10095;</a></div><br>

<div style="text-align:center"><span class="dot" onclick="currentSlide(1)"></span>

<span class="dot" onclick="currentSlide(2)"></span> <span class="dot" onclick="currentSlide(3)"></span> </div><div id = "wrap"><div
id="regbar"><div id="navthing">

<h2>Create an Student Account</h2><form><fieldset class = "feedback form"><table>

<tr><td align="right">Student Full name:</td><td align="left"><input type="text" name="fullname" placeholder="Md Jubair
AYeshi"></td></tr><tr><td align="right">Registration Id:</td><td align="left"><input type="number" name="Regno"
placeholder="11411787"></td></tr><tr>

<td align="right">Departments:</td><td align="left"><select name="departments">

<option value="CSE">CSE</option><option value="ECE">ECE</option> <option value="ME">ME</option> <option
value="CIVIL">CIVIL</option> </select></td></tr><tr>

<td align="right">Emailid:</td>

<td align="left"><input type="email" name="email" autocomplete="on"></td> </tr> <tr>

<td align="right">Password:</td><td align="left"><input type="password" name="pass" ></td>

</tr><tr><td align="right">Mobilenno:</td><td align="left"><input type="tel" name="usrtel" placeholder="9058815957"></td></tr><tr><td
align="right">Gender:</td><td>

<td align="left"><input type="radio" name="gender" value="male" checked> Male</td>

<td align="left"><input type="radio" name="gender" value="female"> Female</td>

<td align="left"><input type="radio" name="gender" value="other"> Other</td>

</tr> <td align="right"> <input type="submit" value="Submit" class = "btn success">

</table></fieldset></form></body>

</html>

<script src='http://cdnjs.cloudflare.com/ajax/libs/jquery/2.1.3/jquery.min.js'>

</script><script src="js/index.js">

</script>

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

<script src="js/student_acc.js">

</script>

</body>

</html>
```

3.4 CSS FILES:

3.4.1 Admin.css:

```
td{ padding:10px; text-align:left; }
td:hover{ background-color:#64C2EC; } body { margin: 0; padding: 0; font-family: Sans-serif; background: #F6F3EC; } h2 { padding: 20px;
margin-left:400px; color: #ecf0f1; border-left: 20px solid transparent; border-right: 20px solid transparent; } .h3 { color:
#ecf0f1; border-left: 20px solid transparent; border-right: 20px solid transparent; } input{ padding:5px; } p{ font-
family:helvetica; } select{ padding:8px; } #wrap { margin: 0 auto 30px; }i{ font-family:Sans-serif; font-size:13px;
color:#34495e; } fieldset{ padding:40px; margin-right:200px; margin-left:200px; margin-bottom:50px; }.logout{
border:none; color:white; padding:14px 28px; cursor:pointer; position:relative; margin-top:8px; left:70px; right:0px; top:5px; }.log {
background-color:#4CAF52; }.log:hover{ background-color:#46a049 } #regbar { height: 70px; background: #34495e; } #navthing { margin-left:
100px; margin-right: 100px; }.feedback { color:#F74356 padding:14px 28px; cursor:pointer; }.form { background-color:#BAE1F2; }
.btn { border:none; color:white; padding:14px 28px; cursor:pointer; }.success { background-color:#4CAF50; }.success:hover{ background-
color:#46a049 } @media all and (max-width:768px){ td{ padding:5px; text-align:left; }
h2 { padding: 10px; margin-left:200px; font-size: 1em; color: #ecf0f1; border-left: 10px solid transparent; border-right: 10px
solid transparent; }.h3 { color: #ecf0f1; font-size: 1em; border-left: 10px solid transparent; border-right: 10px solid
transparent; } input{ padding:3px; } p{ font-family:helvetica; } select{ padding:4px; } #wrap { margin: 0 auto 15px; }i{ font-
family:Sans-serif; font-size:6px; color:#34495e; } fieldset{ padding:20px; margin-right:50px; margin-left:50px;
margin-bottom:25px; }.logout{ border:none; color:white; padding:7px 14px; cursor:pointer; position:relative; margin-top:4px; left:35px;
right:0px; top:3px; }.log { background-color:#4CAF52; }.log:hover{ background-color:#46a049 } #regbar { height: 35px; background:
#34495e; } #navthing { margin-left: 50px; margin-right: 50px; }.feedback { color:#F74356 padding:7px 14px; cursor:pointer; }.form {
background-color:#BAE1F2; }.btn { border:none; color:white; padding:7px 14px; cursor:pointer; }.success { background-
color:#4CAF50; }.success:hover{ background-color:#46a049 } }
```

3.4.2 faculty_acc.css:

```
td{ padding:15px; text-align:left; } body { margin: 0; padding: 0; font-family: Sans-serif; background: #F6F3EC; } h2 { padding: 20px; color:
#ecf0f1; border-left: 20px solid transparent; border-right: 20px solid transparent; } input{ padding:8px; } select{
padding:8px; }.logout{ border:none; color:white; padding:14px 28px; cursor:pointer; position:relative; margin-top:8px; right:10px;
top:5px; }.log { background-color:#4CAF52; }.log:hover{ background-color:#46a049 } #wrap { margin: 0 auto 30px; } fieldset{
padding:50px; margin-right:100px; } #regbar { height: 70px; background: #34495e; } #navthing { margin-left: 100px; }.btn {
border:none; color:white; padding:14px 28px; cursor:pointer; }.success { background-color:#4CAF50; }.success:hover{ background-
color:#46a049 } @media all and (max-width:768px){ td{ padding:8px; text-align:left; } h2 { padding: 10px; color: #ecf0f1; font-size: 1em;
border-left: 10px solid transparent; border-right: 10px solid transparent; } input{ padding:4px; } select{
padding:4px; }.logout{ border:none; color:white; padding:7px 14px; cursor:pointer; position:relative; margin-top:4px; right:5px;
top:3px; }.log { background-color:#4CAF52; }.log:hover{ background-color:#46a049 } #wrap { margin: 0 auto 15px; } fieldset{
padding:25px; margin-right:50px; } #regbar { height: 35px; background: #34495e; } #navthing { margin-left: 50px; }.btn {
border:none; color:white; padding:7px 14px; cursor:pointer; }.success { background-color:#4CAF50; }.success:hover{ background-
color:#46a049 } }
```

3.4.3 feedbackform.css:

```
td{ padding:10px; text-align:left; font-family: "Sans-serif"; } td:hover{ background-color:#64C2EC; }; body { margin: 0; padding: 0; font-
family: Sans-serif; background: #F6F3EC; } h2 { padding: 20px; margin-left:400px; font-family: 'Oswald', sans-serif; color: #ecf0f1;
border-left: 20px solid transparent; border-right: 20px solid transparent; } input{ padding:5px; } p{ font-
family:helvetica; } select{ padding:8px; } #wrap { margin: 0 auto 30px; }i{ font-family:Sans-serif; font-size:13px;
color:#34495e; } fieldset{ padding:40px; margin-right:300px; margin-left:200px; margin-bottom:50px; } #regbar {
height: 70px; background: #34495e; } #navthing { margin-left: 100px; }.feedback { padding:14px 28px; cursor:pointer; }.form {
background-color:#BAE1F2; }.logout{ border:none; color:white; padding:14px 28px; cursor:pointer; position:relative; margin-
top:8px; right:10px; top:5px; }.log { background-color:#4CAF52; }.log:hover{ background-color:#46a049 } .btn { border:none; color:white;
padding:14px 28px; cursor:pointer; }.success { background-color:#4CAF50; }.success:hover{ background-color:#46a049 } @media all and
(max-width:768px){ td{ padding:5px; text-align:left; font-family: "Sans-serif"; } td:hover{ background-color:#64C2EC; }; body { margin: 0;
padding: 0; font-family: Sans-serif; background: #F6F3EC; } h2 { padding: 10px; margin-left:200px; font-family: 'Oswald', sans-serif; color:
#ecf0f1; font-size:1em; border-left: 10px solid transparent; border-right: 10px solid transparent; } input{
padding:2px; } p{ font-family:helvetica; } select{ padding:4px; } #wrap { margin: 0 auto 15px; }i{ font-family:Sans-serif;
font-size:13px; color:#34495e; } fieldset{ padding:20px; margin-right:150px; margin-left:100px; margin-
bottom:25px; } #regbar { height: 90px; background: #34495e; } #navthing { margin-left: 50px; }.feedback { padding:7px 14px; cursor:pointer;
}.form { background-color:#BAE1F2; }.logout{ border:none; color:white; padding:7px 14px; cursor:pointer; position:relative; margin-top:4px;
right:5px; top:2px; }.log { background-color:#4CAF52; }.log:hover{ background-color:#46a049 } .btn { border:none; color:white; padding:7px
14px; cursor:pointer; }.success { background-color:#4CAF50; }.success:hover{ background-color:#46a049 } }
```

3.4.4 Home.css:

```
body{ margin: 0; padding: 0; font-family: Sans-serif; background-image:url("../image/149543429625.jpg"); background-repeat:no-repeat; background-size:cover; -webkit-background-size:cover; -moz-background-size:cover; }
.logout{ border:none; color:white; padding:14px 28px; cursor:pointer; position:relative; margin-top:0px; left:-10px; right:10px; top:2px;}.log { background-color:#4CAF52; }.log:hover{ background-color:#46a049 }.container{ overflow: hidden; background-color: #333; font-family: Arial; }.container a { float: left; font-size: 16px; color: white; text-align: center; padding: 14px 16px; text-decoration: none; }.dropdown{ float: left; overflow: hidden; }.dropdown .dropbtn { cursor: pointer; font-size: 16px; border: none; outline: none; color: white; padding: 14px 16px; background-color: inherit; }.container a:hover, .dropdown:hover .dropbtn { background-color: red; }.dropdown-content { display: none; position: absolute; background-color: #f9f9f9; min-width: 160px; box-shadow: 0px 8px 16px 0px rgba(0,0,0,0.2); z-index: 1; }.dropdown-content a { float: none; color: black; padding: 12px 16px; text-decoration: none; display: block; text-align: left; }.dropdown-content a:hover { background-color: #ddd; }.show { display: block; } @media all and (max-width:768px){ .logout{ border:none; color:white; padding:7px 14px; cursor:pointer; position:relative; margin-top:0px; left:-5px; right:5px; top:1px; }.container a { float: left; font-size: 8px; color: white; text-align: center; padding: 7px 8px; text-decoration: none; }.dropdown .dropbtn { cursor: pointer; font-size: 8px; border: none; outline: none; color: white; padding: 7px 8px; background-color: inherit; }.dropdown-content { display: none; position: absolute; background-color: #f9f9f9; min-width: 80px; box-shadow: 0px 8px 8px 0px rgba(0,0,0,0.2); z-index: 1; }.dropdown-content a { float: none; color: black; padding: 6px 8px; text-decoration: none; display: block; text-align: left; }.dropdown-content a:hover { background-color: #ddd; }.show { display: block; }}
```

3.4.4 student_acc.css:

```
/*box-sizing:border-box*/ /* Slideshow container */ .slideshow-container { /* max-width: 800px;*/ /*width: 100%;*/ max-width: 1000px; min-width: 400px; overflow:visible; position: relative; margin: auto; margin-top:20px; }.mySlides { display: none; } /* Next & previous buttons */ .prev, .next { cursor: pointer; position: absolute; top: 50%; width: auto; margin-top: -22px; padding: 16px; color: white; font-weight: bold; font-size: 18px; transition: 0.6s ease; border-radius: 0 3px 3px 0; } /* Position the "next button" to the right */ .next { right: 0; border-radius: 3px 0 0 3px; } /* On hover, add a black background color with a little bit see-through */ .prev:hover, .next:hover { background-color: rgba(0,0,0,0.8); } /* Caption text */ .text { color: #f2f2f2; font-size: 15px; padding: 8px 12px; position: absolute; bottom: 8px; width: 100%; text-align: center; } /* Number text (1/3 etc) */ .numbertext { color: #f2f2f2; font-size: 12px; padding: 8px 12px; position: absolute; top: 0; } /* The dots/bullets/indicators */ .dot { cursor: pointer; height: 13px; width: 13px; margin: 0 2px; background-color: #bbb; border-radius: 50%; display: inline-block; transition: background-color 0.6s ease; }.active, .dot:hover { background-color: #717171; } /* Fading animation */ .fade { -webkit-animation-name: fade; -webkit-animation-duration: 1.5s; animation-name: fade; animation-duration: 1.5s; } @-webkit-keyframes fade { from {opacity: .4} to {opacity: 1} } @keyframes fade { from {opacity: .4} to {opacity: 1} } td { padding:15px; text-align:left; color:white; } input { padding:8px; } select { padding:8px; } body { margin: 0; padding: 0; font-family: Sans-serif; background: #232B2B; } h2 { padding: 20px; color: #ecf0f1; border-left: 20px solid transparent; border-right: 20px solid transparent; } #wrap { margin: 0 auto 30px; }.form { background-color:#000000; } fieldset { padding:50px; margin-right: 100px; margin-bottom:50px; } #regbar { height: 70px; background: #34495e; } #navthing { margin-left: 100px; }.logout { border:none; color:white; padding:14px 28px; cursor:pointer; position:relative; right:10px; top:5px; }.log { background-color:#4CAF52; }.log:hover{ background-color:#46a049 } .btn { border:none; color:white; padding:14px 28px; cursor:pointer; }.success { background-color:#4CAF50; }.success:hover{ background-color:#46a049 } @media all and (max-width:768px){ /* Slideshow container */ .slideshow-container { max-width: 500px; min-width: 100px; overflow:visible; position: relative; margin: auto; margin-top:10px; } /* Next & previous buttons */ .prev, .next { cursor: pointer; position: absolute; top: 25%; width: auto; margin-top: -11px; padding: 8px; color: white; font-weight: bold; font-size: 9px; transition: 0.3s ease; border-radius: 0 2px 2px 0; } /* Position the "next button" to the right */ .next { right: 0; border-radius: 2px 0 0 2px; } /* On hover, add a black background color with a little bit see-through */ .prev:hover, .next:hover { background-color: rgba(0,0,0,0.8); } /* Caption text */ .text { color: #f2f2f2; font-size: 8px; padding: 4px 6px; position: absolute; bottom: 4px; width: 50%; text-align: center; } /* Number text (1/3 etc) */ .numbertext { color: #f2f2f2; font-size: 6px; padding: 4px 6px; position: absolute; top: 0; } /* The dots/bullets/indicators */ .dot { cursor: pointer; height: 7px; width: 7px; margin: 0 1px; background-color: #bbb; border-radius: 50%; display: inline-block; transition: background-color 0.3s ease; }.active, .dot:hover { background-color: #717171; } /* Fading animation */ .fade { -webkit-animation-name: fade; -webkit-animation-duration: 1.5s; animation-name: fade; animation-duration: 1.5s; } @-webkit-keyframes fade { from {opacity: .4} to {opacity: 1} } @keyframes fade { from {opacity: .4} to {opacity: 1} } td { padding:8px; text-align:left; color:white; } input { padding:4px; } select { padding:4px; } body { margin: 0; padding: 0; font-family: Sans-serif; background: #232B2B; } h2 { padding: 10px; color: #ecf0f1; font-size: 1em; border-left: 10px solid transparent; border-right: 10px solid transparent; } #wrap { margin: 0 auto 15px; }.form { background-color:#000000; } fieldset { padding:25px; margin-right: 50px; margin-bottom:25px; } #regbar { height: 35px; background: #34495e; }

#navthing {
margin-left: 50px; }

.logout

{

border:none; color:white; padding:7px 14px; cursor:pointer; position:relative; right:5px; top:3px; }.log {
background-color:#4CAF52; }.log:hover{ background-color:#46a049 }

.btn { border:none; color:white; padding:7px 14px; cursor:pointer; }.success { background-color:#4CAF50; }.success:hover{ background-color:#46a049 }

}
```

3.4.5 style.css:

```
.container { overflow: hidden; background-color: #333; font-family: Arial; } .container a { float: left; font-size: 16px; color: white; text-align: center; padding: 14px 16px; text-decoration: none; } .dropdown { float: left; overflow: hidden; } .dropdown .dropbtn { cursor: pointer; font-size: 16px; border: none; outline: none; color: white; padding: 14px 16px; background-color: inherit; } .container a:hover, .dropdown:hover .dropbtn { background-color: red; } .dropdown-content { display: none; position: absolute; background-color: #f9f9f9; min-width: 160px; box-shadow: 0px 8px 16px 0px rgba(0,0,0,0.2); z-index: 1; } .dropdown-content a { float: none; color: black; padding: 12px 16px; text-decoration: none; display: block; text-align: left; } .dropdown-content a:hover { background-color: #ddd; } .show { display: block; } * { margin: 0; padding: 0; } body { margin: 0; padding: 0; font-family: Sans-serif; background-image: url("../image/LPU-medical-courses-2.jpg"); background-repeat: no-repeat; background-size: cover; -webkit-background-size: cover; -moz-background-size: cover; } #wrap { margin: 0 auto 30px; } #regbar { height: 70px; background: #34495e; } #navthing { margin-left: 50px; } h2 { padding: 20px; color: #ecf0f1; } fieldset { border: none; } .login { position: relative; width: 350px; display: none; } .arrow-up { width: 0; height: 0; border-left: 20px solid transparent; border-right: 20px solid transparent; border-bottom: 15px solid #ECF0F1; left: 10%; position: absolute; top: -10px; } .btn { border: none; padding: 14px 28px; cursor: pointer; font-size: 20px; border-radius: 5px; display: block; width: 100%; padding: 10px; color: #fff; } .js-push-btn { background-color: #34495e; border: none; color: white; padding: 15px 32px; text-align: center; text-decoration: none; display: inline-block; font-size: 16px; margin: 8px 6px; cursor: pointer; float: right; } .js-push-btn:hover { background-color: #1bc6a4; } .js-notify-btn { background-color: #34495e; border: none; color: white; padding: 15px 32px; text-align: center; text-decoration: none; display: inline-block; font-size: 16px; margin: 8px 6px; cursor: pointer; float: right; } .js-notify-btn:hover { background-color: #1bc6a4; } .success { background-color: #4CAF50; } .success:hover { background-color: #1bc6a4; } .register { background-color: #4CAF50; } .register:hover { background-color: #1bc6a4; } .formholder { background: #ecf0f1; width: 350px; border-radius: 5px; padding-top: 5px; } .email { padding: 7px 5px; margin: 10px 0; width: 96%; display: block; font-size: 18px; border-radius: 10px; border: none; } .name { background-color: white; } .name:hover { background-color: #696969; } .pass { background-color: white; } .pass:hover { background-color: #696969; } .randompad { padding: 10px; } .green { color: #1abc9c; } a { color: #ecf0f1; text-decoration: none; } a:hover { color: #1abc9c; } @media all and (max-width: 768px) { .container a { float: left; font-size: 8px; color: white; text-align: center; padding: 7px 8px; text-decoration: none; } .dropdown .dropbtn { cursor: pointer; font-size: 8px; border: none; outline: none; color: white; padding: 7px 8px; background-color: inherit; } .dropdown-content { display: none; position: absolute; background-color: #f9f9f9; min-width: 80px; box-shadow: 0px 8px 16px 0px rgba(0,0,0,0.2); z-index: 1; } .dropdown-content a { float: none; color: black; padding: 6px 8px; text-decoration: none; display: block; text-align: left; } #wrap { margin: 0 auto 15px; } #regbar { height: 35px; background: #34495e; } #navthing { margin-left: 25px; } h2 { padding: 10px; color: #ecf0f1; font-size: 1em; } fieldset { border: none; } .login { position: relative; width: 175px; font-size: 1em; display: none; } .arrow-up { width: 0; height: 0; border-left: 10px solid transparent; border-right: 10px solid transparent; border-bottom: 8px solid #ECF0F1; left: 5%; position: absolute; top: -5px; } .btn { border: none; padding: 7px 14px; cursor: pointer; font-size: 10px; border-radius: 2px; display: block; width: 50%; padding: 5px; color: #fff; } .js-push-btn { background-color: #34495e; border: none; color: white; padding: 8px 16px; text-align: center; text-decoration: none; display: inline-block; font-size: 12px; margin: 4px 3px; cursor: pointer; float: right; } .js-push-btn:hover { background-color: #1bc6a4; } .js-notify-btn { background-color: #34495e; border: none; color: white; padding: 8px 16px; text-align: center; text-decoration: none; display: inline-block; font-size: 12px; margin: 4px 3px; cursor: pointer; float: right; } .formholder { background: #ecf0f1; width: 175px; border-radius: 3px; padding-top: 3px; } .email { padding: 4px 3px; margin: 5px 0; width: 96%; display: block; font-size: 9px; border-radius: 5px; border: none; } .randompad { padding: 5px; } .green { color: #1abc9c; } a { color: #ecf0f1; text-decoration: none; } a:hover { color: #1abc9c; } }
```

3.5 JAVASCRIPT FILE:

3.5.1 dropdown.js:

```
function myFunction()

{

    document.getElementById("myDropdown").classList.toggle("show");

} // Close the dropdown if the user clicks outside of it

window.onclick = function(e)

{ if (!e.target.matches('.dropbtn')) { var myDropdown = document.getElementById("myDropdown"); if (myDropdown.classList.contains('show')) { myDropdown.classList.remove('show'); } } }
```


3.5.2 index.js:

```
$( 'input[type="submit"]' ).mousedown(function(){ $(this).css('background', '#2ecc71'); }); $( 'input[type="submit"]' ).mouseup(function(){ $(this).css('background', '#1abc9c'); }); $( '#loginform' ).click(function(){ $( '.login' ).fadeToggle('slow'); $(this).toggleClass('green'); }); $(document).mouseup(function (e) { var container = $( ".login" ); if (!container.is(e.target) // if the target of the click isn't the container... && container.has(e.target).length === 0) // ... nor a descendant of the container { container.hide(); $( '#loginform' ).removeClass('green'); } });
```

3.5.3 script.js:

```
if ('serviceWorker' in navigator) { navigator.serviceWorker .register('./service-worker.js') .then(function() { console.log('Service Worker Registered'); }); } var app1 = (function() { 'use strict'; var isSubscribed = false; var swRegistration = null; var notifyButton = document.querySelector('.js-notify-btn'); var pushButton = document.querySelector('.js-push-btn'); if (!('Notification' in window)) { console.log('This browser does not support notifications!'); return; } /* Notification.requestPermission(function(status) { console.log('Notification permission status:', status); }); */ function displayNotification() { if (Notification.permission === 'granted') { navigator.serviceWorker.getRegistration().then(function(reg) { var options = { body: 'First notification!', icon: 'image/149543429616.jpg', vibrate: [100, 50, 100], data: { dateOfArrival: Date.now(), primaryKey: 1 }, actions: [ {action: 'explore', title: 'Go to the site', icon: 'image/149543429616.jpg'}, {action: 'close', title: 'Close the notification', icon: 'image/LPU-medical-courses-2.jpg'}, ] // TODO 5.1 - add a tag to the notification }; reg.showNotification('Hello world!', options); }); } } function initializeUI() { pushButton.addEventListener('click', function() { pushButton.disabled = true; if (isSubscribed) { unsubscribeUser(); } else { subscribeUser(); } }); swRegistration.pushManager.getSubscription().then(function(subscription) { isSubscribed = (subscription !== null); updateSubscriptionOnServer(subscription); if (isSubscribed) { console.log('User IS subscribed. '); } else { console.log('User is NOT subscribed. '); } updateBtn(); }); } // TODO 4.2a - add VAPID public key function subscribeUser() { const applicationServerKey = urlB64ToUint8Array('BPO3qylcCwyARSSGTnJocHwYCFdLyQuMpkJibO2bujtQ41712Oao4PKvTn9PpEAqbXfi8U3Y8VR1n8rCK9gS2Q'); swRegistration.pushManager.subscribe({ userVisibleOnly: true, applicationServerKey: applicationServerKey }) .then(function(subscription) { console.log('User is subscribed:', subscription); updateSubscriptionOnServer(subscription); isSubscribed = true; updateBtn(); }) .catch(function(err) { if (Notification.permission === 'denied') { console.warn('Permission for notifications was denied'); } else { console.error('Failed to subscribe the user: ', err); } updateBtn(); }); } function unsubscribeUser() { swRegistration.pushManager.getSubscription().then(function(subscription) { if (subscription) { return subscription.unsubscribe(); } }) .catch(function(error) { console.log('Error unsubscribing', error); }) .then(function() { updateSubscriptionOnServer(null); console.log('User is unsubscribed'); isSubscribed = false; updateBtn(); }); } function updateSubscriptionOnServer(subscription) { // Here's where you would send the subscription to the application server var subscriptionJson = document.querySelector('.js-subscription-json'); var endpointURL = document.querySelector('.js-endpoint-url'); var subAndEndpoint = document.querySelector('.js-sub-endpoint'); if (subscription) { subscriptionJson.textContent = JSON.stringify(subscription); endpointURL.textContent = subscription.endpoint; subAndEndpoint.style.display = 'block'; } else { subAndEndpoint.style.display = 'none'; } } function updateBtn() { if (Notification.permission === 'denied') { pushButton.textContent = 'Push Messaging Blocked'; pushButton.disabled = true; updateSubscriptionOnServer(null); return; } if (isSubscribed) { pushButton.textContent = 'Disable Push Messaging'; } else { pushButton.textContent = 'Enable Push Messaging'; } pushButton.disabled = false; } function urlB64ToUint8Array(base64String) { var padding = '='.repeat((4 - base64String.length % 4) % 4); var base64 = (base64String + padding) .replace(/\-/g, '+') .replace(/_/g, '/'); var rawData = window.atob(base64); var outputArray = new Uint8Array(rawData.length); for (var i = 0; i < rawData.length; ++i) { outputArray[i] = rawData.charCodeAtAt(i); } return outputArray; } notifyButton.addEventListener('click', function() { displayNotification(); }); if ('serviceWorker' in navigator && 'PushManager' in window) { console.log('Service Worker and Push is supported'); navigator.serviceWorker.register('service-worker.js') .then(function(swReg) { console.log('Service Worker is registered', swReg); swRegistration = swReg; initializeUI(); }) .catch(function(error) { console.error('Service Worker Error', error); }); } else { console.warn('Push messaging is not supported'); pushButton.textContent = 'Push Not Supported'; } }());
```

3.5.3 student_acc.js

```
var slideIndex = 0;
```

```
showSlides();
```

```
function showSlides()
```

```
{
```

```
var i;
```

```
var slides = document.getElementsByClassName("mySlides");
```

```
for (i = 0; i < slides.length; i++) {
```

```
slides[i].style.display = "none";
```

```
}
```

```
slideIndex++;
```

```
if (slideIndex > slides.length) {slideIndex = 1} slides[slideIndex-1].style.display = "block"; setTimeout(showSlides, 2000); // Change image every 2 seconds }
```

4.1 Manifest file:

The [web app manifest](#) is a simple JSON file that gives you, the developer, the ability to control how your app appears to the user in areas where they would expect to see apps (for example, a mobile device's home screen), direct what the user can launch, and define its appearance at launch.

Web app manifests provide the ability to save a site bookmark to a device's home screen. When a site is launched this way:

- It has a unique icon and name so that users can distinguish it from other sites.
- It displays something to the user while resources are downloaded or restored from cache.
- It provides default display characteristics to the browser to avoid too abrupt transition when site resources become available.

It does all this through the simple mechanism of metadata in a text file. That's the web app manifest.

4.1.1 Manifest.json

```
{ "name": "Jubair", "short_name": "Jubair", "start_url": "./?utm_source=web_app_manifest", "icons": [{ "src": "image/icons/icon-128x128.png", "sizes": "128x128", "type": "image/png" }, { "src": "image/icons/icon-144x144.png", "sizes": "144x144", "type": "image/png" }, { "src": "image/icons/icon-152x152.png", "sizes": "152x152", "type": "image/png" }, { "src": "image/icons/icon-192x192.png", "sizes": "192x192", "type": "image/png" }, { "src": "image/icons/icon-256x256.png", "sizes": "256x256", "type": "image/png" }], "start_url": "/login.html", "display": "standalone", "background_color": "#2196F3", "theme_color": "#EB3C17" }
```



Add to Home Screen Icon

5.1 Lighthouse:

Lighthouse is an [open-source](#), automated tool for improving the quality of web pages. You can run it against any web page, public or requiring authentication. It has audits for performance, accessibility, progressive web apps, and more.

You can run Lighthouse in Chrome DevTools, from the command line, or as a Node module. You give Lighthouse a URL to audit, it runs a series of audits against the page, and then it generates a report on how well the page did. From there, use the failing audits as indicators on how to improve the page. Each audit has a reference doc explaining why the audit is important, as well as how to fix it.



5.1.1 LightHouse Report:

The screenshot displays the Lighthouse report interface. On the left, a mobile device mockup shows a page with a 'Login' button, 'Notify me!', 'Enable Push Messaging', and a large image of a building with 'YOLO' text. The right panel shows the audit results. The top row displays scores: 91 for Progressive Web App, 77 for Performance, 100 for Accessibility, and 92 for Best Practices. The Progressive Web App section is expanded, showing 1 failed audit: 'Does not redirect HTTP traffic to HTTPS'. The Performance section is also visible, showing a console log with service worker registration details.

References:

- <https://developers.google.com/web/fundamentals/codelabs/your-first-pwapp/>
- www.stackoverflow.com
- <https://console.firebase.google.com/?pli=1>
- <https://firebase.google.com/docs/cli/>