Fully Flexible Credit System (FFCS)

Digital Assignment 2

Prof. Mareeswari.V School of Computer Science and Engineering

Submitted by
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ABSTRACT:

FFCS is a way in which students have complete freedom in tailoring their course and in a way they wish. ... With this system, a student can prepare his/her own timetable with the specific courses he/she intends to do in that semester along with the timings of classes and choice of professors. This is a system that VIT proudly boasts about in every brochure or advertisement that this is a system that allows students to choose their own faculty, their own subject slots, class timings and locations. You give your first FFCS for the courses of II and onward semesters. In the I Semester, VIT itself chooses the faculty, subject slots, class timings and locations for you. Hence we came up with a website that helps students especially freshers to practice how the system of ffcs works by making mock timetables which can be used as a substitute when the official registration takes place.

CODE (FRONTEND):

HTML Code:

• index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8">
 <title>FFCS</title>
 integrity="sha384-rwoIResjU2yc3z8GV/NPeZWAv56rSmLldC3R/AZzGRnGxQQKnKkoFVhFQhNUwEyJ" crossorigin="anonymous">
 <meta name="viewport" content="width=device-width, initial-scale=1">
 k href="https://fonts.googleapis.com/css?family=Quicksand|Ubuntu+Conde nsed" rel="stylesheet">
 <script src="https://code.jquery.com/jquery-3.1.1.slim.min.js" integrity="sha384-</pre>
A7FZj7v+d/sdmMqp/nOQwliLvUsJfDHW+k9Omg/a/EheAdgtzNs3hpfag6Ed950n" crossorigin="anonymous"></script>
 <script src="https://cdnjs.cloudflare.com/ajax/libs/tether/1.4.0/js/tether.min.js" integrity="sha384-</p>
DztdAPBWPRXSA/3eYEEUWrWCy7G5KFbe8fFjk5JAlxUYHKkDx6Qin1DkWx51bBrb" crossorigin="anonymous"></script>
 <link href="https://fonts.googleapis.com/css?family=Raleway:800" rel="stylesheet">
 <link href="https://fonts.googleapis.com/css?family=Montserrat" rel="stylesheet">
 <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0-alpha.6/js/bootstrap.min.js" integrity="sha384-</p>
vBWWzIZJ8ea9aCX4pEW3rVHigjt7zpkNpZk+02D9phzyeVkE+jo0ieGizqPLForn" crossorigin="anonymous"></script>
 k rel="stylesheet" href="stylesheets/style.css">
</head>
<body>
<div class="container-fluid c1" id="c1a"><strong>Welcome To myFFCS redefined</strong></div>
 <div class="container-fluid c1" id="c1b">Create your time-table without a hassle</div>
 <div class="container-fluid c2" >
   <div class="row">
```

```
<div class="col-sm-2"></div>
    <div class="col-sm-3">
    <form action="/" method="post">
    <div id="uname">USERNAME<br>
      <div class="input-group i1">
        <input type="text" name="email" id="i1" class="form-control f1" >
      </div><BR>
    </div>
    </div>
    <div class="col-sm-3">
      <div id="psw">PASSWORD<br>
        <div class="input-group">
          <input type="password" name = "passwd" id="i2" class="form-control f2" >
        </div><BR>
      </div>
    </div>
    </div>
  </div>
<div class="container-fluid c3" >
  <div class="row">
    <div class="col-sm-2"></div>
    <div class="col-sm-3">
    <button class="btn" type="submit" id="b1" required="true">LOGIN</button><BR>
        </form>
      <a href="timetable2.html"><button class="btn" type="button" id="b2" required="true">SKIP LOGIN</button></a><br/>><br/>btton></a>
      <button class="btn" type="button" id="b3">SIGN UP</button>
  <!-- Trigger the modal with a button -->
  <button class="btn" id="b1" data-toggle="modal" data-target="#askModal" >ASK MYFFCS</button>
  <!-- Modal -->
  <div class="modal fade" id="askModal" role="dialog">
   <div class="modal-dialog">
    <!-- Modal content-->
    <div class="modal-content">
     <div class="modal-header">
      <button type="button" class="close" data-dismiss="modal">&times;</button>
      <h4 class="modal-title">Say hi</h4>
     </div>
     <div class="modal-body">
```

```
<center>
  <iframe
 allow="microphone;"
 width="350"
 height="430"
 src="https://console.dialogflow.com/api-client/demo/embedded/b5cfe126-5fcf-4ab3-83e5-f3419ff065ad">
</iframe>
</center>
     </div>
     <div class="modal-footer">
      <button type="button" class="btn btn-default" data-dismiss="modal">Close</button>
     </div>
   </div>
  </div>
 </div>
      <button class="btn" type="button" id="b4" >SIGN UP WITH <i class="fa fa-google-plus" aria-
hidden="true"></i></button>
    </div>
  </div>
</div>
<!--MODAL-->
<div class="container">
  <!-- Modal -->
 <div class="modal fade" id="myModal" role="dialog">
    <div class="modal-dialog modal1">
      <!-- Modal content-->
      <div class="modal-content">
        <div class="modal-header" >
          <h4><span class="glyphicon glyphicon-lock" ></span><strong> SIGN UP</strong></h4>
          <button type="button" class="close" data-dismiss="modal">&times;</button>
        </div>
        <div class="modal-body" style="padding:40px 50px;">
          <form role="form" action="/" method="post">
            <div class="form-group">
              <label for="f1"><b>Email:</b></label>
              <input type="email" class="form-control" id="f1" name="email">
            </div>
```

```
<br>
             <!-- <div class="form-group">
               <label for="f2"><b>Full Name</b> </label>
               <input type="text" class="form-control" id="f2" name="email">
             </div> -->
             <br>
             <div class="form-group">
               <label for="f2"><b>Password</b> </label>
               <input type="password" class="form-control" id="f3" name="passwd">
             </div>
             <br>
             <div class="form-group">
               <label for="f2"><b>Re-enter Password</b> </label>
               <input type="password" class="form-control" id="f4" name="confirm">
             </div>
             <div class="butn" align="middle"><button type="submit" class="btn B2 btn-block" value="submit"><span</pre>
class="glyphicon glyphicon-off"></span> REGISTER ME</button></div>
           </form>
        </div>
      </div>
    </div>
  </div>
</div>
<script>
  $(document).ready(function(){
    $("#b3").click(function(){
      $("#myModal").modal();
    });
    $("#b1").click(function(){
      $("#myModal").modal();
    });
    $("#b4").click(function(){
      window.location = "/auth/google";
    })
    $("#b2").click(function(){
      window.location = "timetable2.ejs";
    })
 });
```

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

timetable.html

```
<!DOCTYPE html>
<html>
<head>
 <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
 <script src="https://cdnjs.cloudflare.com/ajax/libs/tether/1.4.0/js/tether.min.js" integrity="sha384-</p>
DztdAPBWPRXSA/3eYEEUWrWCy7G5KFbe8fFjk5JAlxUYHKkDx6Qin1DkWx51bBrb" crossorigin="anonymous"></script>
 </l></l></l></l></l></l
integrity="sha384-rwoIResjU2yc3z8GV/NPeZWAv56rSmLldC3R/AZzGRnGxQQKnKkoFVhFQhNUwEyJ" crossorigin="anonymous">
 <script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.4/angular.min.js"></script>
 <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0-alpha.6/js/bootstrap.min.js" integrity="sha384-</pre>
vBWWzIZJ8ea9aCX4pEW3rVHjgjt7zpkNpZk+02D9phzyeVkE+jo0ieGizqPLForn" crossorigin="anonymous"></script>
 <script src="https://code.jquery.com/jquery-3.1.1.slim.min.js" integrity="sha384-</pre>
A7FZj7v+d/sdmMqp/nOQwliLvUsJfDHW+k9Omg/a/EheAdgtzNs3hpfag6Ed950n" crossorigin="anonymous"></script>
 <script src="https://cdnjs.cloudflare.com/ajax/libs/materialize/0.100.2/js/materialize.min.js"></script>
 k href="https://fonts.googleapis.com/icon?family=Material+Icons" rel="stylesheet">
 k href="https://fonts.googleapis.com/css?family=Alegreya+Sans:800|Montserrat" rel="stylesheet">
 </use.fontawesome.com/releases/v5.0.12/css/all.css" integrity="sha384-
G0flWCsCzJIMAVNQPfjH08cyYaUtMwjJwqiRKxxE/rx96Uroj1BtlQ6MLJuheaO9" crossorigin="anonymous">
 <link rel="stylesheet" href="stylesheets/style2.css">
</head>
<body>
<nav>
 <div class="nav-wrapper">
   <a href="/" class="brand-logo">MY FFCS</a>
   <!-- <li>><a href="#"><div class="m">MOCK FFCS</div></a> -->
     <a href="#"><div class="m">TEAM</div></a>
     <a href="mailto:angad.sharma2017@vitstudent.ac.in"><div class="m">CONTACT</div></a>
     <a href="/timetable/logout"><div class="m">LOGOUT</div></a>
   </div>
</nav>
<div class="container-fluid c1" >
 <div class="row">
```

```
<div class="col-sm-4">
    <!--FORM STARTS HERE----->
    <form role="form" action="#" method="post"> <!--http://redefinedffcs.herokuapp.com/timetable-->
    <div id="title"><div class="font1">COURSE CODE<br></div> <!--Will be changed to course title later on-->
     <div class="input-group i1">
       <input type="text" id="i1" class="form-control f1" name = "CODE" placeholder="Enter course code"> <!--Course code
will be added later-->
     </div>
    </div>
     <div class="but1" align="left"><button type="submit" class="btn BFac btn-block" value="submit" id="sb"> REQUEST
FACULTY</button></div>
    </form>
    </div>
  <!--FORM ends here----->
  <!--<p id="demo">CHANGE-->
  <div class="col-sm-2"></div>
  <div class="col-sm-6">
    <!-- Switch -->
    <!-- Switch -->
    <div class="switch">
     <label>
       LAB
       <input type="checkbox" id="sw1">
       <span class="lever"></span>
       THEORY
     </label>
    </div>
    <div>
     A1
        A2
        B1
        B2
        C1
        C2
```

```
D1
D2
E1
E2
F1
F2
TA1
TA2
TB1
TB2
TC1
TC2
TD1
TD2
TE1
TE2
TF1
TF2
TAA1
TAA2
TBB2
TCC1
TCC2
TDD2
</div>
</div>
</div>
```

</div>

>Br>

```
<div class="container-fluid">
  <div class="row">
    <div class="col-sm-8">
      <div class="DataBase">
         <div class="row">
         <div class="col-sm-4 Col1">
            <div id="fac1" class="fac">
            </div>
            <div id="fac4" class="fac">
            </div>
            <div id="fac7" class="fac">
            </div>
            <div id="fac10" class="fac">
            </div>
            <div id="fac13" class="fac">
            </div>
            <div id="fac16" class="fac">
            </div>
            <div id="fac19" class="fac">
            </div>
            <div id="fac22" class="fac">
            </div>
            <div id="fac25" class="fac">
            </div>
            <div id="fac28" class="fac">
            </div>
            <div id="fac31" class="fac">
            </div>
            <div id="fac34" class="fac">
            </div>
            <div id="fac37" class="fac">
            </div>
            <div id="fac40" class="fac">
            </div>
            <div id="fac43" class="fac">
            </div>
            <div id="fac46" class="fac">
            </div>
```

```
</div>
<div class="col-sm-4 Col2">
   <div id="fac2" class="fac">
   </div>
   <div id="fac5" class="fac">
   </div>
   <div id="fac8" class="fac">
   </div>
   <div id="fac11" class="fac">
   </div>
   <div id="fac14" class="fac">
   </div>
   <div id="fac17" class="fac">
   </div>
   <div id="fac20" class="fac">
   </div>
   <div id="fac23" class="fac">
   </div>
   <div id="fac26" class="fac">
   </div>
   <div id="fac29" class="fac">
   </div>
   <div id="fac32" class="fac">
   </div>
   <div id="fac35" class="fac">
   </div>
   <div id="fac38" class="fac">
   </div>
   <div id="fac41" class="fac">
   </div>
   <div id="fac44" class="fac">
   </div>
   <div id="fac47" class="fac">
   </div>
</div>
<div class="col-sm-4 Col3">
 <div id="fac3" class="fac">
 </div>
```

```
<div id="fac6" class="fac">
      </div>
      <div id="fac9" class="fac">
      </div>
      <div id="fac12" class="fac">
      </div>
      <div id="fac15" class="fac">
      </div>
      <div id="fac18" class="fac">
      </div>
      <div id="fac21" class="fac">
      </div>
      <div id="fac24" class="fac">
      </div>
      <div id="fac27" class="fac">
      </div>
      <div id="fac30" class="fac">
      </div>
      <div id="fac33" class="fac">
      </div>
      <div id="fac36" class="fac">
      </div>
      <div id="fac39" class="fac">
      </div>
      <div id="fac42" class="fac">
      </div>
      <div id="fac45" class="fac">
      </div>
      <div id="fac48" class="fac">
      </div>
     </div>
    </div>
  </div>
</div>
<div class="col-sm-4" align="right">
  <div id="credits" align="middle"><br><h4><b>0</b></h4>CREDITS</div>
</div>
```

</div>

```
</div>
<br><br>>
<div class="container-fluid" align="middle">
 <!--Baker-->
  Weekdays
  8:00 <br>to <br>8:50 
  9:00 <br>to <br>9:50 
  10:00 <br>to<br>10:50
  11:00 <br>to<br>11:50
  12:00 <br>to<br>12:50
  -
  1:00 <br>to<br>1:50
  2:00 <br>to<br>2:50
  3:00 <br>to <br>3:50
  4:00 <br>to<br>4:50
  5:00 <br>to <br>5:50
  6:00 <br>to<br>6:50
  -
 8:00 <br>to<br>8:40
  8:45 <br>to<br>9:30
  10:00 <br>to<br>10:45
  10:45 <br>to<br>11:30
  11:30 <br>to<br>12:15
  12:15 <br>to<br>1:00
  1:00 <br>to<br>1:50
  2:00 <br>to<br>2:45
  2:45 <br>to<br>3:30
  4:00 <br>to<br>4:45
  4:45 <br>to<br>5:30
  5:30 <br>to <br>6:15
  6:15 <br>to<br>7:00
 MONDAY
```

```
A1
F1
D1
TB1
TG1
-
LUNCH
A2
F2
D2
TB2 <!--change-->
TG2 <!--change-->
- <!--change-->
L1
L2
L3
L4
L5
L6
LUNCH
L31
L32
L33
L34
L35
L36
TUESDAY
B1
G1
E1
TC1
TAA1
-
LUNCH
```

```
B2
G2
E2
TC2
TAA2
-
L7
L8
L9
L10
L11
L12
LUNCH
L37
L38
L39
L40
L41
L42
WEDNESDAY
C1
A1
F1
V1
V2
-
LUNCH
C2
A2
F2
TD2
TBB2
-
```

```
L13
L14
L15
L16
-
-
LUNCH
L43
L44
L45
L46
L47
L48
THURSDAY
D1
B1
G1
TE1
TCC1
-
LUNCH
D2
B2
G2
TE2
TCC2
-
L19
L20
L21
L22
L23
L24
```

```
LUNCH
L49
L50
L51
L52
L53
L54
FRIDAY
E1
C1
TA1
TF1
TD1
-
LUNCH
E2
C2
TA2
TF2
TDD2
-
L25
L26
L27
L28
L29
L30
LUNCH
L55
L56
L57
L58
L59
L60
```

```
</div>
<br><br>>
<br><br>>
<div class="container-fluid c2" align="middle">
 <div id="text1" align="left"><b>SELECTED COURSES</b></div><br>
    <!--CHange-->
      <b>SLOT</b>
      <b>CODE</b>
      <b>TITLE</b>
      <b>VENUE</b>
      <b>FACULTY</b>
      <B>CREDITS</B>
       <!--change-->
    </div>
<br>
<div id="creds" align="middle" >Total Credits: 0</div><br>
<br>>Br>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
<script src="javascripts/script.js"></script>
</body>
     timetable2.html
<!DOCTYPE html>
<html>
<head>
 <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
 <script src="https://cdnjs.cloudflare.com/ajax/libs/tether/1.4.0/js/tether.min.js" integrity="sha384-</p>
DztdAPBWPRXSA/3eYEEUWrWCy7G5KFbe8fFjk5JAlxUYHKkDx6Qin1DkWx51bBrb" crossorigin="anonymous"></script>
 integrity="sha384-rwoIResjU2yc3z8GV/NPeZWAv56rSmLldC3R/AZzGRnGxQQKnKkoFVhFQhNUwEyJ" crossorigin="anonymous">
 <script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.4/angular.min.js"></script>
```

```
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0-alpha.6/js/bootstrap.min.js" integrity="sha384-</p>
vBWWzIZJ8ea9aCX4pEW3rVHjgjt7zpkNpZk+02D9phzyeVkE+jo0ieGizqPLForn" crossorigin="anonymous"></script>
 <script src="https://code.jquery.com/jquery-3.1.1.slim.min.js" integrity="sha384-</pre>
A7FZj7v+d/sdmMqp/nOQwliLvUsJfDHW+k9Omg/a/EheAdgtzNs3hpfag6Ed950n" crossorigin="anonymous"></script>
 <script src="https://cdnjs.cloudflare.com/ajax/libs/materialize/0.100.2/js/materialize.min.js"></script>
 <link href="https://fonts.googleapis.com/icon?family=Material+Icons" rel="stylesheet">
 link href="https://fonts.googleapis.com/css?family=Alegreya+Sans:800|Montserrat" rel="stylesheet">
 GOfIWCsCzJIMAVNQPfjH08cyYaUtMwjJwqiRKxxE/rx96Uroj1BtIQ6MLJuheaO9" crossorigin="anonymous">
 k rel="stylesheet" href="stylesheets/style2.css">
</head>
<body>
<nav>
 <div class="nav-wrapper">
   <a href="/" class="brand-logo">MY FFCS</a>
   <!-- <li>><a href="#"><div class="m">MOCK FFCS</div></a> -->
     <a href="#"><div class="m">TEAM</div></a>
     <a href="mailto:angad.sharma2017@vitstudent.ac.in"><div class="m">CONTACT</div></a>
     <!-- <li><a href="/timetable/logout"><div class="m">LOGOUT</div></a> -->
   </div>
</nav>
<div class="container-fluid c1" >
 <div class="row">
   <div class="col-sm-4">
     <!--FORM STARTS HERE------>
     <form role="form" action="#" method="post"> <!--http://redefinedffcs.herokuapp.com/timetable-->
       <div id="title"><div class="font1">COURSE CODE<br></div> <!--Will be changed to course title later on-->
        <div class="input-group i1">
          <input type="text" id="i1" class="form-control f1" name = "CODE" placeholder="Enter course code"> <!--Course
code will be added later -->
        </div>
       </div>
       <div class="but1" align="left"><button type="submit" class="btn BFac btn-block" value="submit" id="sb"
name="CODE"> REQUEST FACULTY</button></div>
     </form>
   </div>
```

```
<!--FORM ends here----->
<!--<p id="demo">CHANGE-->
<div class="col-sm-2"></div>
<div class="col-sm-6">
<!-- Switch -->
<!-- Switch -->
<div class="switch">
 <label>
 LAB
  <input type="checkbox" id="sw1">
  <span class="lever"></span>
 THEORY
 </label>
</div>
<div>
 A1
  A2
  B1
  B2
  C1
  C2
  D1
  D2
  E1
  E2
  F1
  F2
  TA1
  TA2
  TB1
  TB2
```

```
TC1
    TC2
    TD1
    TD2
    TE1
    TE2
    TF1
    TF2
    TAA1
    TAA2
    TBB2
    TCC1
    TCC2
    TDD2
    </div>
 </div>
</div>
</div>
<br>>Br>
<div class="container-fluid">
<div class="row">
 <div class="col-sm-8">
  <div class="DataBase">
   <div class="row">
    <div class="col-sm-4 Col1">
    <div id="fac1" class="fac">
    </div>
    <div id="fac4" class="fac">
    </div>
    <div id="fac7" class="fac">
    </div>
```

```
<div id="fac10" class="fac">
  </div>
  <div id="fac13" class="fac">
  </div>
  <div id="fac16" class="fac">
  </div>
  <div id="fac19" class="fac">
 </div>
  <div id="fac22" class="fac">
  </div>
  <div id="fac25" class="fac">
  </div>
  <div id="fac28" class="fac">
  </div>
  <div id="fac31" class="fac">
  </div>
  <div id="fac34" class="fac">
 </div>
  <div id="fac37" class="fac">
  </div>
  <div id="fac40" class="fac">
  </div>
 <div id="fac43" class="fac">
  </div>
  <div id="fac46" class="fac">
  </div>
</div>
<div class="col-sm-4 Col2">
 <div id="fac2" class="fac">
  </div>
  <div id="fac5" class="fac">
  </div>
 <div id="fac8" class="fac">
  </div>
  <div id="fac11" class="fac">
  </div>
  <div id="fac14" class="fac">
  </div>
```

```
<div id="fac17" class="fac">
  </div>
  <div id="fac20" class="fac">
  </div>
  <div id="fac23" class="fac">
  </div>
  <div id="fac26" class="fac">
  </div>
  <div id="fac29" class="fac">
  </div>
  <div id="fac32" class="fac">
  </div>
  <div id="fac35" class="fac">
  </div>
  <div id="fac38" class="fac">
  </div>
  <div id="fac41" class="fac">
 </div>
  <div id="fac44" class="fac">
  </div>
  <div id="fac47" class="fac">
  </div>
</div>
<div class="col-sm-4 Col3">
  <div id="fac3" class="fac">
  </div>
  <div id="fac6" class="fac">
 </div>
  <div id="fac9" class="fac">
  </div>
  <div id="fac12" class="fac">
  </div>
  <div id="fac15" class="fac">
  </div>
  <div id="fac18" class="fac">
  </div>
  <div id="fac21" class="fac">
  </div>
```

```
</div>
         <div id="fac27" class="fac">
         </div>
         <div id="fac30" class="fac">
         </div>
         <div id="fac33" class="fac">
         </div>
         <div id="fac36" class="fac">
         </div>
         <div id="fac39" class="fac">
         </div>
         <div id="fac42" class="fac">
         </div>
         <div id="fac45" class="fac">
         </div>
         <div id="fac48" class="fac">
         </div>
        </div>
      </div>
    </div>
   </div>
   <div class="col-sm-4" align="right">
    <div id="credits" align="middle"><br><h4><b>0</b></h4>CREDITS</div>
   </div>
 </div>
</div>
<br><br>>
<div class="container-fluid" align="middle">
  <!--Baker-->
    Weekdays
    8:00 <br>to <br>8:50 
    9:00 <br>to <br>9:50
    10:00 <br>to<br>10:50
    11:00 <br>>to<br>>11:50
    12:00 <br>to <br>12:50
```

<div id="fac24" class="fac">

```
-
1:00 <br>to<br>1:50
2:00 <br>to <br>2:50 
3:00 <br>to<br>3:50
4:00 <br>to<br>4:50
5:00 <br>to <br>5:50
6:00 <br>to<br>6:50
-
8:00 <br>to<br>8:40
8:45 <br>to<br>9:30
10:00 <br>to<br>10:45
10:45 <br>to<br>11:30
11:30 <br>to<br>12:15
12:15 <br>to<br>1:00
1:00 <br>to<br>1:50
2:00 <br>to <br>2:45
2:45 <br>to<br>3:30
4:00 <br>to<br>4:45
4:45 <br>>to<br>>5:30
5:30 <br>to <br>6:15
6:15 <br>to<br>7:00
MONDAY
A1
F1
D1
TB1
TG1
-
LUNCH
A2
F2
D2
TB2 <!--change-->
TG2 <!--change-->
```

```
- <!--change-->
L1
L2
L3
L4
L5
L6
LUNCH
L31
L32
L33
L34
L35
L36
TUESDAY
B1
G1
E1
TC1
TAA1
-
LUNCH
B2
G2
E2
TC2
TAA2
-
L7
L8
L9
L10
```

```
L11
L12
LUNCH
L37
L38
L39
L40
L41
L42
WEDNESDAY
C1
A1
F1
V1
V2
-
LUNCH
C2
A2
F2
TD2
TBB2
-
L13
L14
L15
L16
-
-
LUNCH
L43
L44
L45
L46
```

```
L47
L48
THURSDAY
D1
B1
G1
TE1
TCC1
-
LUNCH
D2
B2
G2
TE2
TCC2
-
L19
L20
L21
L22
L23
L24
LUNCH
L49
L50
L51
L52
L53
L54
FRIDAY
E1
C1
```

```
TA1
 TF1
 TD1
 -
 LUNCH
 E2
 C2
 TA2
 TF2
 TDD2
 -
 L25
 L26
 L27
 L28
 L29
 L30
 LUNCH
 L55
 L56
 L57
 L58
 L59
 L60
 </div>
<br><br>>
<br><br>
<div class="container-fluid c2" align="middle">
<div id="text1" align="left"><b>SELECTED COURSES</b></div><br>
<!--CHange-->
 <b>SLOT</b>
```

```
<b>CODE</b>
    <b>TITLE</b>
    <b>VENUE</b>
    <b>FACULTY</b>
    <B>CREDITS</B>
     <!--change-->
  </div>
<br>
<div id="creds" align="middle" >Total Credits: 0</div><br>
<br>>Br>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
<script src="javascripts/script2.js"></script>
</body>
</html>
```

CSS Code:

• style.css

```
body{
        background-image: url("../images/bg1.jpg");
        max-width: 100% !important;
        height: 100%;
        background-size: cover;
        background-repeat: no-repeat;
}
.c1{
        padding-left:10vh;
        margin-left: 23vh;
}
#c1a{
        margin-top: 10vh;
        font-size: 52px;
}
#c1b{
        font-size: 30px;
```

```
}
#i1,#i2{
        margin-top: 20px;
        border-left: none;
        border-right: none;
        border-top:none;
        border-width: 2px;
        border-color: black;
        max-width:70%;
}
.c2{
        margin-top: 10vh;
        font-size: 28px;
}
.modal-header{
        background: linear-gradient( to left, #fecf32, #ee526c);
}
.B2{
        background: linear-gradient( to left, #2848be, #954ced);
}
/*Media Queries for a Responsive Website*/
#b1, #b2, #b3, #b4, #b5{
        font-family: 'Montserrat', sans-serif;
        margin: 12px;
        width:200px;
        color: white;
}
#uname,#psw{
        font-family: 'Montserrat', sans-serif;
}
#b1{
        background: linear-gradient( to left, #2848be, #954ced);
}
#b3{
        background: linear-gradient( to left, yellow, deeppink);
}
#b2{
```

```
background: linear-gradient( to left, #fecf32, #ee526c);
}
#b4{
        background: linear-gradient( to left, #f7fe1f, #ee2a68);
}
#b1:hover, #b2:hover, #b3:hover, #b4:hover {
        cursor:pointer;
        color:black;
}
@media (max-width: 885px)
{
        .c1{
                 padding-left:5vh;
                 margin-left: 13vh;
        }
        #c1a{
                 margin-top: 5vh;
                 font-size: 40px;
        }
        #c1b{
                 font-size: 20px;
        }
}
@media (max-width: 670px)
{
        .c1{
                 padding-left:3vh;
                 margin-left: 2vh;
        }
        #c1a{
                 margin-top: 3vh;
                 font-size: 25px;
        }
        #c1b{
                 font-size: 15px;
        }
}
```

• style2.css

```
body{
  background-image: url("../images/bg1.jpg");
  max-width: 100% !important;
  height: 100%;
  background-size: cover;
  background-repeat: no-repeat;
  background-attachment: fixed;
}
.yellowBG{
  color: yellow !important;
}
/*BAKER*/
.slotLabel:hover{
  font-weight: bold;
  cursor:pointer;
}
. testSlot \{ \\
  background: linear-gradient(rgba(142, 43, 255, 0.5), rgba(12, 43, 238, 0.63))!important;
  transition: 0.8s;
}
.textBold{
  font-weight: bold;
}
.row1{
  height:70px !important;
}
.week{
  width:100px; !important;
  padding:1px !important;
}
.|{
  width: 70px;
}
.FFCStable{
  table-layout: fixed;
}
```

```
/*Baker ends*/
.brand-logo{
  margin-left:5vh !important;
  color:black !important;
  font-family: 'Alegreya Sans', sans-serif !important;
}
.m{
  font-size: 3vh !important;
  color:black !important;
  margin-right: 5vh;
  font-family: 'Alegreya Sans', sans-serif !important;
}
nav{
  background-color: rgba(0,0,0,0.1)!important;
}
.c1{
  margin-top: 50px;
  font-family: 'Alegreya Sans', sans-serif !important;
}
/*change*/
.cross {
  color: red;
}
.close:hover{
  cursor: pointer;
  font-weight: bold;
}
.fac:hover{
  cursor: pointer;
  font-weight: bold;
}
/*change*/
. slot Table \{\\
  background-color: rgba(242,242,242,0.8) !important;
  text-align: center!important;
  font-family: 'Montserrat', sans-serif !important;
}
.FFCStable, .row1, .slotHead, .slot{
```

```
background-color: rgba(242,242,242,0.4) !important;
  text-align: center!important;
  border: 1px solid black;
  border-collapse: collapse;
  padding:2px !important;
  size: 4px!important;
  font-family: 'Montserrat', sans-serif !important;
}
.TH{
  background: linear-gradient(rgba(255, 163, 42, 0.5), rgba(238, 42, 104, 0.63))!important;
  color:black;
}
.LAB{
  background: linear-gradient(rgba(73, 89, 255, 0.5), rgba(57, 239, 71, 0.84))!important;
  color:black;
}
.FFCStable{
  max-width: 90%;
}
.selectedCourse{
  width:85%;
  background-color: rgba(242,242,242,0.8) !important;
  text-align: center!important;
  font-size: 2.5vh !important;
  font-family: 'Montserrat', sans-serif !important;
}
#text1{
  font-size: 3vh !important;
  margin-left: 15vh;
}
#text2{
  font-size: 2.8vh !important;
  font-family: 'Alegreya Sans', sans-serif !important;
}
td,th
{
  text-align: center!important;
```

```
}
#title, #fac{
  font-size: 3vh !important;
  color:black !important;
  font-family: 'Montserrat', sans-serif !important;
}
.font1{
  font-family: 'Alegreya Sans', sans-serif !important;
}
.BFac{
  width:60% !important;
  background: linear-gradient( to left, #1429ff, deeppink) !important;
  opacity:0.8 !important;
}
.BFac:hover{
  color: black; !important;
}
/*CSS FOR SWITCH*/
/* The switch - the box around the slider */
.switch label input[type=checkbox] +.lever {
  font-size: 4vh !important;
  background: linear-gradient( to left, yellow, deeppink) !important;
  opacity: 0.8;
}
.switch label input[type=checkbox] +.lever:after {
  background-color: rgba(132,132,191) !important;
}
#sw1{
  border-left: none;
  border-right: none;
  border-top:none;
  border-width: 2px;
  border-color: black;
  max-width:70%;
}
/*CSS END*/
#credits{
```

```
background: linear-gradient( to left, yellow, deeppink) !important;
width:140px;
margin-right: 100px;
height:140px;
border-radius:70px;
font-family: 'Montserrat', sans-serif !important;
color:white;
}
.DataBase{
height:30vh;
font-family: 'Montserrat', sans-serif !important;
font-size:2.5vh;
overflow-x: hidden;
}
```

JavaScript Code:

script.js

```
$(document).ready(()=>{
 setTimeout(function(){ window.location.replace("/"); }, 1000 * 60 * 2);
    //-----GLOBAL VARIABLES------
    var getJSON = [];
    var slotInit =[];
    var slotName=[];
    var counter=0;
    var dataJSON=[];
    var facID=1;
    var n;
    var extractfacID; //Change
    var state = true; //change2
    var removeslotFlag=0;
    var ced = 0;
    let remaining = 0;
    $(".lever").on("click",()=>{
     state = !state;
     updateFreshCourses();
    });
```

```
var table = document.getElementById("sec_Course");
      var row=table.insertRow(1);
      row.id="row"+id cell;//change
      var slot=row.insertCell(0);
      var code=row.insertCell(1);
      var title=row.insertCell(2);
      var ven=row.insertCell(3);
      var facl=row.insertCell(4);
      var cred=row.insertCell(5);
      var delt=row.insertCell(6);// CHANGE
      delt.id="id"+id_cell;//change
      var classN="close"; //change
      slot.innerHTML=s;
      code.innerHTML=c;
      title.innerHTML=t;
      ven.innerHTML=v;
      facl.innerHTML=f;
      cred.innerHTML=cd;
      delt.innerHTML="<b/>i class=\"fas fa-times cross\"/></b/>"; //CHANGE
      $("#"+delt.id).addClass(classN);//CHANGE
//----- Baker
var temp="0";
var temp2="#0";
$(".slotLabel").on("click", function(){
 var innerHTMLElement= (this.id).toUpperCase();
 innerHTMLElement = innerHTMLElement.substr(1, innerHTMLElement.length);
  innerHTMLElement = "." + innerHTMLElement;
  console.log($(innerHTMLElement).hasClass("testSlot"), "for class", innerHTMLElement);
  if($(innerHTMLElement).hasClass("testSlot") == false) {
    $(temp).removeClass("testSlot");
    $(temp2).removeClass("textBold");
    console.log("Changing bold at",temp2);
    temp = innerHTMLElement;
    $(temp2.substr(0,1)+this.id).addClass("textBold"); //Extracting the # sign
    if($(innerHTMLElement).hasClass("TH")== false)
```

function addDataToList(s,c,t,v,f,cd,id cell) //Updating selected courses table

```
$(innerHTMLElement).addClass("testSlot");
 }
  else{
    $(temp).removeClass("testSlot");
    $(temp2).removeClass("textBold");
 }
 temp2=temp2.substr(0,1)+(this.id); //Extracting th
});
//----- Baker ends
function extractSlot() {
        var flag=0;
        var length=dataJSON[facID]["SLOT"].length;
        for(;i<length;i++) //Check if + sign is present which means there are more than 1 slots
          if(dataJSON[facID]["SLOT"][i]=="+"){
            flag=1; //Flag to 1 if more than 1 slot present
            break;
          }
        if (flag == 1) {
          slotName[facID]=".";
          slotName[facID] =slotName[facID] + dataJSON[facID]["SLOT"].substr(0, i); //Store the first part of the slot in slotName
          dataJSON[facID]["SLOT"] =dataJSON[facID]["SLOT"].substr(i+1, length); //Store the later part of the slot in slot
          changeSlotColor(slotName[facID], dataJSON[facID]["CODE"]); //Call function to change color
          if(dataJSON[facID]["SLOT"].localeCompare("")!=0) // If slot has another part
             extractSlot();
        }
        else {
          slotName[facID]=".";
          slotName[facID] = slotName[facID] + dataJSON[facID]["SLOT"]; // Copy slot to slotName and call fxn to change color
          changeSlotColor(slotName[facID], dataJSON[facID]["CODE"]);
          return;
        }
      function changeSlotColor(s, code, flag02) {//Multiple changes
      console.log(s);
        console.log("BURBERRY runs");
        var slotI = s.substr(1, s.length);
        // console.log("Pancake runs changeslotColor");
```

```
if (removeslotFlag == 1) {
        // console.log("Strawberry runs if", $(s).hasClass("TH") == true);
         if ($(s).hasClass("TH") == true)//Change
        {
           // console.log("Pancake tries removing", s);
           $(s).removeClass("TH");
           // console.log("Removing class and changing html element to",s);
           $(s).html(slotI);
         }
         else { //strawberry
           // console.log("Strawberry runs else");
           $(s).addClass("TH");//Change
           $(s).html(code + "-" + '<br/>' + slotl);
        }
      }
      else {
        // console.log("Strawberry runs else");
         $(s).addClass("TH");//Change
         $(s).html(code + "-" + '<br/>' + slotl);
      }
    }
//updateFreshCourses(); //Function to be called when JSON object is received. STATUS:200 @Angad?
// to check if given string i json or not
function isJSON(str){
 try{
  JSON.parse(str);
 }
 catch(e){
  return false;
 }
 return true;
}
function updateFreshCourses(){
console.log("updateFreshCourses() running");
if(isJSON(dataJSON))
 dataJSON = JSON.parse(dataJSON);
//LET US ASSUME THAT THE FACULTY LIST IS STORED IN A ARRAY OF DICTIONARY IN javascript
//@Angad JSON store the JSON data into this dictionary array.
```

```
//Extract it from the object and store it in dataJSON
 counter=0;
n=dataJSON.length;
slotInit =[];
//Pancake
  for(var I3=0;I3<n;I3++)
    slotInit[I3]=dataJSON[I3]["SLOT"];
SLOTName=[];
 //-----//
 var count0=0;
 $.get("/timetable/classSize", (dex, status) =>{
 for(var I = 0; I < n; I + +){ //Loop to update table
 // var data =dataJSON[I]["SLOT"]+"|"+dataJSON[I]["VENUE"]+"|"+dataJSON[I]["FACULTY"]+"|";
 // if (data.length >=23)
 // $("#fac"+(l+1)).html(data.substr(0,23)+ data.substr(23, data.length)+'<hr/>');
 // else
 // $("#fac"+(l+1)).html(data+'<hr/>');
   remaining = parseInt(dex) - dataJSON[I]["COUNT"]
   var data = dataJSON[l]["SLOT"] + "|" + dataJSON[l]["VENUE"] + "|" + dataJSON[l]["FACULTY"] + "|";
   if(state) //Superman
   {
     if(dataJSON[I]["SLOT"][0]=='L'){
      if (data.length >= 14)
        $("#fac" + (counter + 1)).html(data.substr(0, 14) + data.substr(14, data.length) + '<hr/>');
      else
        $("#fac" + (counter + 1)).html(data + '<hr/>');
     counter++;
     }
   }
   else {
    if(dataJSON[I]["SLOT"][0]!='L'){
     if (data.length >= 14)
       $("#fac" + (count0 + 1)).html(data.substr(0, 14) + data.substr(14, data.length) + '<hr/>');
     else
       $("#fac" + (count0 + 1)).html(data + '<hr/>');
     count0++;
    }
   }
```

```
//Table updated with course options
   }
  });
  }//End of updateFreshCourses()
  var flag=0; // The next is being called 6 times, fixing bug forcefully
  $(".fac").click(function() {
    console.log("running", this.id, "with flag", flag);
    facID=(this.id); // or alert($(this).attr('id'));
    facID= parseInt(facID.substr(3,facID.length));
    updateFrontend ();
    console.log("runningIF", this.id);
    flag++;
  });
//
///Remove courses ------change-----change-----
$(document).on('click', '.close', function(){
 removeslotFlag=1;//pancake
 extractfacID=parseInt((this.id).substr(2,(this.id).length));
 $("#row"+extractfacID).remove();
 // ced=ced-parseInt(dataJSON[extractfacID]["CREDITS"]);
 // $("#creds").html('Total Credits: ' + ced);
 // $("#credits").html("<br><h4><b>" + ced + "</b></h4>CREDITS");
 //dataJSON[extractfacID]["SLOT"]=slotInit[extractfacID];
  facID=extractfacID;
  $.ajax({
    url:'/timetable/del',
    type: 'DELETE',
    data:dataJSON[extractfacID],
    success:()=>{
      console.log("Successfully sent the delete request");
      //TODO can this work?
      // var target = slotInit[extractfacID].split('+');
      // for(i of target){
      // changeSlotColor('.'+i,dataJSON[facID]['CODE']);
      //}
      location.reload();
    },
```

```
error:()=>{
      console.log("Error sending delete AJAX request");
    }
 });
});
//-----End------End------
  //------
  /*Function: updateFrontend()
 T-> Will be invoked when a subject is clicked
    function updateFrontend(){
     facID--;
    console.log("SUPERMAN", facID);
    slotInit[facID]=dataJSON[facID]["SLOT"];
    $.post("/timetable/save",dataJSON[facID],(res)=>{
      if(res.status == "clashed"){
        alert("Slot(s) clashed! "+res.info+" Slot was clashed");
      } else if(res.status == "limit"){
        alert("You cannot register more than 27 credits! You can only register "+res.info+" more credits");
      } else if(res.status == "course_limit") {
        alert("This particular classroom is full")
      }
      else{
        alert(`Course Added. Number of people left in the classroom = ${res.count}`);
        ced = res.info;
        $("#creds").html('Total Credits: ' + res.info)
        $("#credits").html("<br><h4><b>"+res.info+"</b></h4>CREDITS")
        addDataToList(slotInit[facID], dataJSON[facID]["CODE"], dataJSON[facID]["TITLE"], dataJSON[facID]["VENUE"],
dataJSON[facID]["FACULTY"], dataJSON[facID]["CREDITS"],facID);
        slotName[facID]=".";
        extractSlot();
     }
    });
    //addDataToList(slotInit[facID], dataJSON[facID]["CODE"], dataJSON[facID]["TITLE"], dataJSON[facID]["VENUE"],
dataJSON[facID]["FACULTY"], dataJSON[facID]["CREDITS"]);
    // console.log(length);
    //slotName[facID]=".";
    //extractSlot();
    //Demo data feed
```

```
// //type="TH";
    // changeSlotColor(".A1", "CSE1003");
    // changeSlotColor(".B1", "PHY1999");
    // changeSlotColor(".E2", "CHY1701");
    // changeSlotColor(".C2", "MAT2002");
    //Demo data feed end
    // console.log(slotName,"slotName");
  }//End of updateFrontend()
  $("#sb").on("click",(e)=>{
    e.preventDefault();
    $.post("/timetable",{CODE:$("#i1").val().toUpperCase()},(data)=>{
      dataJSON = data;
      updateFreshCourses();
    });
  });
  //to get stored data
  $.get("/timetable/fetch",(data)=>{
    dataJSON = data.data;
    ced = data.credits;
    $("#creds").html('Total Credits: ' + data.credits);
    $("#credits").html("<br><h4><b>"+data.credits+"</b></h4>CREDITS");
    //TODO define slotInit
    for(var j=0;j<dataJSON.length;j++){</pre>
      addDataToList(dataJSON[j]["SLOT"], dataJSON[j]["CODE"], dataJSON[j]["TITLE"], dataJSON[j]["VENUE"],
dataJSON[j]["FACULTY"], dataJSON[j]["CREDITS"], facID);
      extSlot(j);
    }
  });
  function extSlot(b) {
    var flag=0;
    var length=dataJSON[b]["SLOT"].length;
    var i=0;
    for(;i<length;i++) //Check if + sign is present which means there are more than 1 slots
      if(dataJSON[b]["SLOT"][i]=="+"){
        flag=1; //Flag to 1 if more than 1 slot present
        break;
    if (flag == 1) {
```

```
slotName[b]=".";
      slotName[b] =slotName[b] + dataJSON[b]["SLOT"].substr(0, i); //Store the first part of the slot in slotName
       dataJSON[b]["SLOT"] =dataJSON[b]["SLOT"].substr(i+1, length); //Store the later part of the slot in slot
       changeSlotColor(slotName[b], dataJSON[b]["CODE"]); //Call function to change color
      if (data JSON[b]["SLOT"]. locale Compare ("")! = 0) \ // \ If \ slot \ has \ another \ part
         extSlot(b);
    }
    else {
      slotName[b]=".";
      slotName[b] = slotName[b] + dataJSON[b]["SLOT"]; // Copy slot to slotName and call fxn to change color
      changeSlotColor(slotName[b], dataJSON[b]["CODE"]);
      return;
    }
 }
});
       script2.js
var slotInit =[];
var slotName=[];
var counter=0;
var dataJSON=[];
var facID;
var n;
var extractfacID; //Change
var state = "L";
var noSignUPsubCounter=0;
var clashStatus=0;
var removeslotFlag=0;
var arraySubject = [];
var length;
var ced;
arraySubject =[];
var facIDReplace;
var state = true; //change2
function changeslotColor(s, code, flag02) {//Multiple changes
console.log(s);
  console.log("BURBERRY runs");
  var slotI = s.substr(1, s.length);
```

```
// console.log("Pancake runs changeslotColor");
 if (removeslotFlag == 1) {
    // console.log("Strawberry runs if", $(s).hasClass("TH") == true);
    if ($(s).hasClass("TH") == true)//Change
    {
      // console.log("Pancake tries removing", s);
      $(s).removeClass("TH");
      // console.log("Removing class and changing html element to",s);
      $(s).html(slotI);
    }
    else { //strawberry
      // console.log("Strawberry runs else");
      $(s).addClass("TH");//Change
      $(s).html(code + "-" + '<br/>' + slotl);
    }
 }
 else {
    // console.log("Strawberry runs else");
    $(s).addClass("TH");//Change
    $(s).html(code + "-" + '<br/>' + slotl);
 }
$(".lever").on("click",()=>{
 state = !state;
 updateFreshCourses();
});
// console.log("STATE1:", arraySubject, "and", dataJSON);
//-----
updateFreshCourses(); //Function to be called when JSON object is received. STATUS:200 @Angad?
// to check if given string i json or not
function is JSON(str){
try{
 JSON.parse(str);
}
 catch(e){
 return false;
}
 return true;
```

}

```
$("#sb").on("click",(e)=>{
  e.preventDefault();
  $.post("/nosignup/timetable",{CODE:$("#i1").val().toUpperCase()},(data)=>{
    dataJSON = data;
    updateFreshCourses();
  });
});
  function updateFreshCourses(){
  console.log("updateFreshCourses() running");
  if(isJSON(dataJSON))
   dataJSON = JSON.parse(dataJSON);
  //LET US ASSUME THAT THE FACULTY LIST IS STORED IN A ARRAY OF DICTIONARY IN javascript
  //@Angad JSON store the JSON data into this dictionary array.
  //Extract it from the object and store it in dataJSON
  counter=0;
 n=dataJSON.length;
 slotInit =[];
 //Pancake
   for(var I3=0;I3<n;I3++)
     slotInit[I3]=dataJSON[I3]["SLOT"];
 slotName=[];
  //-----//
  var count0=0;
  for(var I = 0; I < n; I + +){ //Loop to update table
   // var data =dataJSON[l]["slot"]+"|"+dataJSON[l]["VENUE"]+"|"+dataJSON[l]["FACULTY"]+"|";
   // if (data.length >=23)
   // $("#fac"+(I+1)).html(data.substr(0,23)+ data.substr(23, data.length)+'<hr/>');
   // else
   // $("#fac"+(I+1)).html(data+'<hr/>');
   var data = dataJSON[l]["SLOT"] + "|" + dataJSON[l]["VENUE"] + "|" + dataJSON[l]["FACULTY"] + "|";
   if(state) //Superman
     if(dataJSON[I]["SLOT"][0]=='L'){
      if (data.length >= 14)
        $("#fac" + (counter + 1)).html(data.substr(0, 14) + data.substr(14, data.length) + '<hr/>');
      else
```

}

```
$("#fac" + (counter + 1)).html(data + '<hr/>');
       counter++;
       }
     }
     else {
      if(dataJSON[I]["SLOT"][0]!='L'){
       if (data.length >= 14)
         $("#fac" + (count0 + 1)).html(data.substr(0, 14) + data.substr(14, data.length) + '<hr/>');
       else
         $("#fac" + (count0 + 1)).html(data + '<hr/>');
       count0++;
      }
     }
    }//Table updated with course options
    }//End of updateFreshCourses()
var temp="0";
var temp2="#0";
$(".slotLabel").on("click", function(){
  var innerHTMLElement= (this.id).toUpperCase();
  innerHTMLElement = innerHTMLElement.substr(1, innerHTMLElement.length);
  innerHTMLElement = "." + innerHTMLElement; //Extracting class
  // console.log($(innerHTMLElement).hasClass("testslot"), "for class", innerHTMLElement);
  if($(innerHTMLElement).hasClass("testSlot") == false) {
    $(temp).removeClass("testSlot");
    $(temp2).removeClass("textBold");
    temp = innerHTMLElement;
    $(temp2.substr(0,1)+this.id).addClass("textBold"); //Extracting the # sign
    if($(innerHTMLElement).hasClass("TH")== false)
    {
      $(innerHTMLElement).addClass("testSlot");}
  }
  else{
    $(temp).removeClass("testSlot");
    $(temp2).removeClass("textBold");
  }
  temp2=temp2.substr(0,1)+(this.id); //Extracting th
```

```
});
var flag=0;
$(".fac").click(function() {
  facID=(this.id); // or alert($(this).attr('id'));
  facID= parseInt(facID.substr(3,facID.length));
  // console.log("id clicked",facID); //superman
  var html_cont = document.getElementById(this.id).innerHTML;
  html_cont=html_cont+"|";
  // console.log("HTML content", html_cont);
  var slot, ven,fac0,i0,i1;
  for(i0=0;i0<html_cont.length;i0++) //Extract slot</pre>
    if(html_cont[i0].localeCompare("|")==0)
       break;
  }
  slot=html_cont.substr(0,i0);
  for(i1=i0+1;i1<html_cont.length;i1++) //Extract slot
  {
    if(html_cont[i1].localeCompare("|")==0) {
      // console.log("breaking at", html_cont[i1]);
      break;
    }
  }
  ven=html_cont.substring(i0+1,i1);
  // console.log("VENUE", ven," from",i0+1," to ", i1);
  // console.log("ven", ven , "start at:",html_cont[i0+1],"ending at", html_cont[i1], "cotent being", html_cont);
  for(i0=i1+1;i0<html_cont.length;i0++) //Extract slot
  {
    if(html_cont[i0].localeCompare("|")==0) {
       break;
    }
  }
  fac0=html_cont.substring(i1+1,i0);
  // console.log("slot", slot, "code", ven, " FACULTY", fac0);
  facIDReplace=-1;
  // console.log("Pancake prints n", n);
  for(var findC=0; findC<n; findC++)</pre>
```

```
{
    // console.log("to be compared with", slotInit[findC]);
    // console.log("slot, VENUE, fac", dataJSON[findC]["slot"]);
    if(slotInit[findC].localeCompare(slot)==0 && dataJSON[findC]["VENUE"].localeCompare(ven)==0 &&
dataJSON[findC]["FACULTY"].localeCompare(fac0)==0) {
      facIDReplace = findC;
      break;
    }
 }
 // console.log("Tracked ID:", facIDReplace);
 facID=facIDReplace;
  var slotClash=0;
 var slotCompare=[];
  var toBeComparedWith =[];
 function DummyExtractslot(slotDummy){
    var k=0;
    var I5;
    for(I5=0;I5<slotDummy.length; I5++)
      if(slotDummy[I5].localeCompare("+")==0)
      {
        toBeComparedWith[k]=slotDummy.substring(0,I5);
        slotDummy=slotDummy.substring(l5+1, slotDummy.length);
        15=0;
        k++;
      }
    toBeComparedWith[k]=slotDummy.substring(0,l5);
 function ExtractslotForIncomingCourse(slotDummy){
    var k=0;
    var I5;
    for(I5=0;I5<slotDummy.length; I5++)
    {
      if(slotDummy[I5].localeCompare("+")==0)
      {
        slotCompare[k]=slotDummy.substring(0,l5);
        slotDummy=slotDummy.substring(l5+1, slotDummy.length);
```

```
15=0;
      k++;
    }
  }
  slotCompare[k]=slotDummy.substring(0,l5);
}
Extracts lot For Incoming Course (slot Init[facID]);\\
for(var I6=0;I6<noSignUPsubCounter;I6++)//Check whether any slots clashed or not
{
  DummyExtractslot(arraySubject[l6]["SLOT"]);
  for(var I7=0; I7<slotCompare.length;I7++)
  {
    for(var I6=0; I6<toBeComparedWith.length;I6++)
      if(slotCompare[I7].localeCompare(toBeComparedWith[I6])==0){
        slotClash=1;
        break;
      }
    }
    if(slotClash==1)
      break;
  }
  if(slotClash==1)
    break;
}
if(slotClash==1)
{
  alert("slot(s) clashed");
  slotClash =0;
  return;
}
arraySubject[noSignUPsubCounter] = {
  "SLOT": slotInit[facID],
  "CODE": dataJSON[facID]["CODE"],
  "TITLE": dataJSON[facID]["TITLE"],
  "VENUE": dataJSON[facID]["VENUE"],
  "FACULTY": dataJSON[facID]["FACULTY"],
  "CREDITS": dataJSON[facID]["CREDITS"]
```

```
};
  noSignUPsubCounter++;
  updateFrontend (0);
 flag++;
});
//Remove courses ------change------change------
$(document).on('click', '.close', function(){
 // console.log('pancake');
  removeslotFlag=1;//pancake
  extractfacID=parseInt((this.id).substr(2,(this.id).length));
  $("#row"+extractfacID).remove();
  dataJSON[extractfacID]["SLOT"]=slotInit[extractfacID];
  facID=extractfacID;
  ced=ced- parseInt(dataJSON[facID]["CREDITS"]);
  $("#creds").html('Total Credits: ' + ced);
  $("#credits").html("<br><h4><b>" + ced + "</b></h4>CREDITS");
  for(var I6=0;I6<arraySubject.length; I6++)
 {
    if(!arraySubject[I6]["SLOT"]){
     console.log("Undefined");
    else if(arraySubject[I6]["SLOT"].localeCompare(slotInit[facID])== 0 &&
arraySubject[I6]["FACULTY"].localeCompare(dataJSON[facID]["FACULTY"])== 0)
    {
      for(var I7=I6;I7<arraySubject.length-1;I7++)
      {
        arraySubject[I7] = {
          "SLOT": arraySubject[I7+1]["SLOT"],
          "CODE": arraySubject[I7+1]["CODE"],
          "VENUE": arraySubject[I7+1]["TITLE"],
          "FACULTY": arraySubject[I7+1]["FACULTY"],
          "CREDITS": arraySubject[I7+1]["CREDITS"]
        };
      }
      arraySubject[I7] = {
        "SLOT": NaN,
        "CODE": NaN,
```

```
"VENUE": NaN,
        "FACULTY": NaN,
        "CREDITS": NaN
      };
      noSignUPsubCounter--;
      break;
 }
  updateFrontend(1);
});
//------End-------End-------
/*Function: updateFrontend()
T-> Will be invoked when a subject is clicked
*/
function updateFrontend(flag02) {
  length = slotInit[facID].length;
  if (flag02 == 0) { // Replaced 2x changes
    slotName[facID] = ".";
    dataJSON[facID]["SLOT"]=slotInit[facID];
    extractslot();
    // console.log("Strawberry runs extractslot() 1");
    if (clashStatus == 1) {
      clashStatus = 0;
    }
    else {
      clashStatus = 0;
      ced = 0;
      for (var I2 = 0; I2 < noSignUPsubCounter; I2++)
        ced += parseInt(arraySubject[I2]["CREDITS"]);
      $("#creds").html('Total Credits: ' + ced);
      $("#credits").html("<br><h4><b>" + ced + "</b></h4>CREDITS");
      addDataToList(slotInit[facID], dataJSON[facID]["CODE"], dataJSON[facID]["TITLE"], dataJSON[facID]["VENUE"],
dataJSON[facID]["FACULTY"], dataJSON[facID]["CREDITS"], facID);
 }
  else{
    extractslot();
    // console.log("Strawberry runs extractslot() 2");
```

```
}
function extractslot() {
  var flag = 0;
  var i = 0;
  for (; i < length; i++) //Check if + sign is present which means there are more than 1 slots
    if (dataJSON[facID]["SLOT"][i] == "+") {
      flag = 1; //Flag to 1 if more than 1 slot present
      break;
    }
  if (flag == 1) {
    // console.log("CHECKPOINT is ", slotInit[facID]);
    slotName[facID] = ".";
    slotName[facID] = slotName[facID] + dataJSON[facID]["SLOT"].substr(0, i); //Store the first part of the SLOT in slotName
    dataJSON[facID]["SLOT"] = dataJSON[facID]["SLOT"].substr(i + 1, length); //Store the later part of the SLOT in SLOT
    // console.log("{ancake tests value of if",($(slotName[facID]).hasClass("TH") == true && removeslotFlag==0));
    if ($(slotName[facID]).hasClass("TH") == true && removeslotFlag==0) {
      alert("SLOTS CLASHED"); //If slots clashed then dont change color
      clashStatus = 1;
      return;
    else if($(slotName[facID]).hasClass("TH") == true && removeslotFlag==1)
      changeslotColor(slotName[facID], dataJSON[facID]["CODE"]); //Call function to change color
    }
    else {
      changeslotColor(slotName[facID], dataJSON[facID]["CODE"]); //Call function to change color
    }
    if (dataJSON[facID]["SLOT"].localeCompare("") != 0) // If SLOT has another part
    {
      extractslot();
      length = dataJSON[facID]["SLOT"].length;
    }
  }
  else {
    slotName[facID] = ".";
    slotName[facID] = slotName[facID] + dataJSON[facID]["SLOT"]; // Copy SLOT to slotName and call fxn to change color
    if ($(slotName[facID]).hasClass("TH") == true && removeslotFlag==0) {
      alert("SLOTS CLASHED"); //If slots clashed then dont change color
```

```
clashStatus = 1;
        return;
      }
      else {
        changeslotColor(slotName[facID], dataJSON[facID]["CODE"]);
      }
      return;
  }
  function addDataToList(s, c, t, v, f, cd, id_cell) //Updating selected courses table
  {
    // console.log("should read empty", arraySubject);
    // for(var I4=0; I4<arraySubject.length; I4++){
    // if(arraySubject[I4]["SLOT"].localeCompare(slotInit[facID])== 0 ||
arraySubject[I4]["FACULTY"].localeCompare(dataJSON[facID]["FACULTY"])== 0){
    //
           alert("SLOT BOOM");
    //
           return;
    // }
    //
    // }
    var table = document.getElementById("sec_Course");
    var row = table.insertRow(1);
    row.id = "row" + id_cell;//change
    var slot = row.insertCell(0);
    var code = row.insertCell(1);
    var title = row.insertCell(2);
    var ven = row.insertCell(3);
    var facl = row.insertCell(4);
    var cred = row.insertCell(5);
    var delt = row.insertCell(6);// CHANGE
    delt.id = "id" + id_cell;//change
    var classN = "close"; //change
    slot.innerHTML = s;
    code.innerHTML = c;
    title.innerHTML = t;
    ven.innerHTML = v;
    facl.innerHTML = f;
    cred.innerHTML = cd;
```

```
delt.innerHTML = "<b/><i class=\"fas fa-times cross\"/></b/>"; //CHANGE
$("#" + delt.id).addClass(classN);//CHANGE
};
```

CODE (BACKEND):

app.js

```
//https://stackoverflow.com/questions/16827987/expressjs-throw-er-unhandled-error-event
const express = require("express");
const path = require("path")
//for Oauth-2.0 login
const passport = require("passport");
require("dotenv").config()
//require('./db/passport_setup.js');
const morgan = require("morgan");
//GraphQL handler
const { graphqlHTTP } = require('express-graphql');
const schema = require("./graphql/schema");
//session handler
var session = require("express-session");
//handler for post requests
const bodyparser = require('body-parser');
//for main routing functions
const main_router = require("./routes/route");
//slot saving router function
const saveslot_router = require("./routes/slot_saving");
```

```
//no-sign-up router
const nosignup = require("./routes/nosignup");
//google+ Oauth-2.0 router
const auth_router = require("./routes/auth_routes");
//load database and save JSON data of courses in it
require("./db/load_in_db");
//set up a server
var app = express();
//for using urlencodedParser in post requests
app.use(bodyparser.json());
app.use(bodyparser.urlencoded({extended:false}));
app.use(morgan('dev'));
//set up a view engine
app.set("view engine","ejs");
//set up middleware for static files
app.use(express.static(path.join(__dirname, 'public')));
//set up a session (It uses cookies)
app.use(session({secret:process.env.COOKIE_SECRET_KEY,
             saveUninitialized:false,
             resave:false
           }));
//use passport js
app.use(passport.initialize());
app.use(passport.session());
```

```
//call the main router
app.use(main_router);
//call slot router function
app.use("/timetable",saveslot_router);
//call no-sign-up router
app.use("/nosignup",nosignup);
//call Oauth-2.0 router for Google+ login
app.use("/auth",auth_router);
// chatbot fulfillment
app.use("/",require("./routes/chatbot"));
//graphql API
app.use(
 '/graphql',
 graphqIHTTP({
  schema,
  graphiql: true,
 }),
);
//listen on specified port
app.listen(process.env.PORT | | 3000,function(){
  console.log("Listening on localhost");
});
```

db - Folder:

all_data.json:

```
all_data.json
[{"VENUE":"SJT710","CODE":"ARB1001","TITLE":"Arabic for Beginners","TYPE":"TH","CREDITS":"3","SLOT":"B1+TB1","FACULTY"
N"},{"VENUE":"NIL","CODE":"ARC1009","TITLE":"Ideation","TYPE":"EPJ","CREDITS":"1","SLOT":"L13+L14+L15+L16","FACULTY":"[
Structures","TYPE":"ETH","CREDITS":"2","SLOT":"B1","FACULTY":"VISWANATHAN T S"},{"VENUE":"NIL","CODE":"ARC1019","TITLE'
RIYAZ"},{"VENUE":"LIB402","CODE":"ARC2003","TITLE":"Construction Technology - Raw and Processed Natural Materials","TYF
Materials","TYPE":"ELA","CREDITS":"2","SLOT":"L37+L38+L39+L40","FACULTY":"MEENAKSHI PAPPU"},{"VENUE":"LIB402","CODE":"/
SANDEEP"},{"VENUE":"NIL","CODE":"ARC2005","TITLE":"Architectural Design - Spatial Understanding","TYPE":"EPJ","CREDITS'
Understanding","TYPE":"EPJ","CREDITS":"1","SLOT":"L43+L44+L45+L46+L49+L50+L51+L52+L55+L 56+L57+L58","FACULTY":"VIDYALA
BORGOHAIN"},{"VENUE":"LIB402","CODE":"ARC2006","TITLE":"Advanced Architectural Graphics","TYPE":"ELA","CREDITS":"3","SI
Contemporary", "TYPE": "ETH", "CREDITS": "3", "SLOT": "F1+TF1", "FACULTY": "DURGANAND BALSAVAR"}, {"VENUE": "NIL", "CODE": "ARC2017"
Community","TYPE":"ELA","CREDITS":"6","SLOT":"L43+L44+L45+L46+L49+L50+L51+L52+L55+L 56+L57+L58","FACULTY":"SURESH BABU
R"},{"VENUE":"NIL","CODE":"ARC4001","TITLE":"Architectural Design - Community","TYPE":"EPJ","CREDITS":"1","SLOT":"L43+l
RAGHAVAN"},{"VENUE":"NIL","CODE":"ARC5003","TITLE":"Architectural Design - Digital Design","TYPE":"EPJ","CREDITS":"1",
Design","TYPE":"EPJ","CREDITS":"1","SLOT":"L43+L44+L45+L46+L49+L50+L51+L52+L55+L 56+L57+L58","FACULTY":"MOHAFIZ RIYAZ"
Estimation","TYPE":"TH","CREDITS":"3","SLOT":"C1+TC1","FACULTY":"KARUNAKARAN R"},{"VENUE":"LIB601","CODE":"ARC5017",
KUMAR N B"},{"VENUE":"NIL","CODE":"BHM2001","TITLE":"Food Production","TYPE":"EPD","CREDITS":"1","SLOT":"L31+L32+L33+L3
O"},{"VENUE":"SMV320","CODE":"BHM2003","TITLE":"Accommodation Operation","TYPE":"ETH","CREDITS":"2","SLOT":"E1",
Operation", "TYPE": "ELA", "CREDITS": "1", "SLOT": "L57+L58", "FACULTY": "MUTHANANDAM S"}, {"VENUE": "SMV320", "CODE": "BHM3025"
Project","TYPE":"PJT","CREDITS":"10","SLOT":"NIL","FACULTY":"ACADEMICS"},{"VENUE":"SMV124","CODE":"BIT1001",
Biochemistry", "TYPE": "ELA", "CREDITS": "1", "SLOT": "L13+L14", "FACULTY": "SONALI SENGUPTA"}, {"VENUE": "SMV214", "CODE": "BIT106
Biochemistry", "TYPE": "ELA", "CREDITS": "1", "SLOT": "L49+L50", "FACULTY": "SUDHA RAMAIAH"}, {"VENUE": "SMV225", "CODE": "BIT1004"
Biochemistry","TYPE":"ELA","CREDITS":"1","SLOT":"L19+L20","FACULTY":"SRIDHARAN T B"},{"VENUE":"SMV124","CODE":"BIT1004
Biochemistry","TYPE":"ELA","CREDITS":"1","SLOT":"L43+L44","FACULTY":"GAYATHRI M"},{"VENUE":"SMV225","CODE":"BIT1004",
C"},{"VENUE":"SMV225","CODE":"BIT1006","TITLE":"Cell Biology and Genetics","TYPE":"ELA","CREDITS":"1","SLOT":"L9+L10",
A"},{"VENUE":"NIL","CODE":"BIT1007","TITLE":"Microbiology","TYPE":"EPJ","CREDITS":"1","SLOT":"L25+L26","FACULTY":"SATH]
```

connect.js

courseModel

const salt = 10;

} = require("./model");

module.exports.segregateData = (data)=>{

//Function to segregate data to lab/theory slots and morning/evening slots

```
var object = {
              theory:{ morning:[],evening:[] },
              lab:{ morning:[],evening:[] },
              project:[]
       };
       data.forEach((element)=>{
              //If venue is NIL then it specifies project component of the course
              if(element.VENUE === 'NIL'){
                     object.project.push(element);
              }
              //If SLOT starts with L then its a lab slot
              else if(element.SLOT[0]==='L')
                     {
                            var n = element.SLOT.length;
                            if( element.SLOT[n-2] === 'L' || element.SLOT[n-2] === '1' || element.SLOT[n-2] === '2' || (element.SLOT[n-2] === '2' || (element.SLOT[n-2] === '1' || element.SLOT[n-2] === '1' || (element.SLOT[n-2] === '1' || element.SLOT[n-2] === '1' || element.SLOT[n-2] === '1' || (element.SLOT[n-2] === '1' || element.SLOT[n-2] === '1' || element.SLOT[n-2] === '1' || (element.SLOT[n-2] === '1' || element.SLOT[n-2] === '1' || (element.SLOT[n-2] === '1' || element.SLOT[n-2] === '1'
2] === '3' && element.SLOT[n-1] === '0'))
                                   object.lab.morning.push(element);
                            //if L31 onwards then evening
                            else
                                    object.lab.evening.push(element);
                     }
              //for theory slots
              else
                     {
                            //if last character of a theory class is '1' then its morning slot
                            if( element.SLOT[ element.SLOT.length -1] === '1' )
                                    object.theory.morning.push(element);
                            else
                                    object.theory.evening.push(element)
                     }
       });
      //change this to return segregated_data
       return object;
}
```

```
//to generate a hash
module.exports.hashAndSave = (obj)=>{
  return new Promise((resolve,reject)=>{
    bcrypt.hash(obj.passwd, salt, (err, hash)=> {
       obj.passwd = hash;
       obj.save().then(()=>{
         console.log("Save profile info");
         resolve("Saved");
       }).catch((err)=>{
         reject(err);
      });
    });
  });
}
//checks for slot clash
module.exports.checkClash = (slots,string)=>{
  console.log(slots)
  console.log(string)
  for( slot of slots ){
    if( string.indexOf(slot)!==-1 )
       return slot;
  }
  return false;
}
module.exports.verifyRoute = (req,res,next)=>{
  if(req.session.email===undefined) res.sendStatus(403);
  else next();
}
// probe course limit
module.exports.probeCourseLimit = (query) =>{
  return new Promise((resolve, reject) => {
    courseModel.findOne(query)
    .then((c) => {
       if(c.COUNT >= parseInt(process.env.COURSE_LIMIT)) {
```

```
console.log("er")
        reject("Course limit was reached");
      }
      else {
        console.log(c)
        resolve(c.COUNT)
      }
    })
  }).catch((err)=>{
    reject(err)
  })
}
// increase course count
module.exports.increaseCourseCount = (query) =>{
  return new Promise((resolve, reject) => {
    courseModel.updateOne(query, {
      $inc: {
        COUNT:1
      }
    })
    .then((c) => \{
      if(c.COUNT >= process.env.COURSE_LIMIT)
        reject("Course limit was reached");
      else
        resolve("Within course limit")
    })
  }).catch((err)=>{
    reject(err)
  })
}
// decrease course count
module.exports.decreaseCourseCount = (query) =>{
  return new Promise((resolve, reject) => {
    courseModel.updateOne(query, {
```

```
$inc: {
         COUNT:-1
      }
    })
    .then((c) => {
      if(c.COUNT >= process.env.COURSE_LIMIT)
         reject("Course limit was reached");
      else
         resolve("Within course limit")
    })
  }).catch((err)=>{
    reject(err)
  })
}
      load_in_db.js
const fs = require("fs");
require("./connect");
var model = require("./model").courseModel;
//function to load the JSON into database
function load_json(){
  return new Promise((resolve,reject)=>{
    fs.open(__dirname +'/all_data.json','r',(error,file_descriptor)=>{
         if(error) reject(error);
         var count = 0;
         fs.readFile(file_descriptor,'utf8',(error,data)=>{
           if(error) console.log(error);
           var obj = JSON.parse(data);
           obj.forEach((info)=>{
             var element = new model(info);
             element.save().then(()=>{
               count++;
               console.log("saved an entry-->" + count.toString());
             });
```

```
});
           resolve("Done loading JSON into mongodb");
         });
    });
  })
}
model.find({}).then(function(data){
  if(data.length === 0){
    load_json().then(function(result){
      console.log(result);
    });
  }
  else{
    console.log("Already loaded the data to database");
  }
});
       model.js
const mongoose = require("mongoose");
//create a schema for courses
var schema = new mongoose.Schema({
  FACULTY:String,
  TYPE:String,
  CREDITS:String,
  SLOT:String,
  CODE:String,
  TITLE:String,
  VENUE:String,
  COUNT: {
    type: Number,
    default: 0
  }
});
//create a schema for storing user credentials and courses selected
```

```
var profileschema = new mongoose.Schema({
  email:String,
  passwd:String,
  courses:[]
});
//create a model based on the schema
var model = mongoose.model('course',schema);
//create a model for the profile collection
var profilemodel = mongoose.model('profile',profileschema);
//export the models
module.exports.courseModel = model;
module.exports.profileModel = profilemodel;
       passport_setup.js
const passport = require("passport");
const googleStrategy = require("passport-google-oauth20");
const profileModel = require("./model").profileModel;
//hash function for storing passwords
const hashAndSave = require("./helpers").hashAndSave;
//To stuff user email into a cookie
passport.serializeUser((user,done)=>{
  done(null,user.email);
});
//to obtain user data from cookie
passport.deserializeUser((user_email,done)=>{
  profileModel.findOne({email:user_email}).then((user)=>{
    done(null,user);
  }).catch(err=>console.log(err));
});
//For GOOGLE+ OAUTH
passport.use(
  new googleStrategy({
    clientID:process.env.CLIENT_ID,
```

```
clientSecret:process.env.CLIENT_SECRET,
  callbackURL:process.env.CALLBACK_URL
}, (accessToken,refreshToken,profile,done)=>{
    profileModel.findOne( {email:profile.displayName} ).then((user)=>{
      //If no specified user existing in DB
      if(!user){
        var obj = new profileModel({
           email:profile.displayName,
           passwd:profile.id,
           courses:[]
         });
         hashAndSave(obj).then(()=>{
           profileModel.findOne({email:obj.email}).then((user)=>{
             console.log("saved user to DB");
             done(null,user);
           });
         }).catch(err=>console.log(err));
      }
      else{
         console.log("Logged in as "+profile.displayName);
         done(null,user);
      }
    });
})
```

graphql - Folder:

)

• schema.js

```
const {

GraphQLObjectType,

GraphQLString,

GraphQLList,

GraphQLInt,
```

```
GraphQLSchema
} = require("graphql");
const courseModel = require("../db/model").courseModel;
const CourseType = new GraphQLObjectType({
  name: "Courses",
 fields:()=>({
    VENUE:{type:GraphQLString},
    CODE:{type:GraphQLString},
    TITLE:{type:GraphQLString},
    TYPE:{type:GraphQLString},
    CREDITS:{type:GraphQLInt},
    SLOT:{type:GraphQLString},
 })
});
const CourseTypeSpecific = new GraphQLObjectType({
  name: "SpecificCourses",
 fields:()=>({
 })
})
const TeacherType = new GraphQLObjectType({
  name:"Teacher",
  fields:()=>({
    VENUE:{type:GraphQLString},
    CODE:{type:GraphQLString},
    TITLE:{type:GraphQLString},
    TYPE:{type:GraphQLString},
    CREDITS:{type:GraphQLInt},
    SLOT:{type:GraphQLString},
    FACULTY:{type:GraphQLString}
  })
})
const CodeType = new GraphQLObjectType({
  name: "Code",
  fields:()=>({
```

```
VENUE:{type:GraphQLString},
    CODE:{type:GraphQLString},
    TITLE:{type:GraphQLString},
    TYPE:{type:GraphQLString},
    CREDITS:{type:GraphQLInt},
    SLOT:{type:GraphQLString},
    FACULTY:{
      type:new GraphQLList(TeacherType),
      args:{name:{type:GraphQLString}},
      resolve(parent,args){
        return courseModel.find({FACULTY:args.name,CODE:parent.CODE});
      }
    }
  })
})
const RootQuery = new GraphQLObjectType({
  name: "RootQuery",
 fields:()=>({
    courses:{
      type:new GraphQLList(CourseType),
      resolve(parent,args){
        return courseModel.find({});
      }
    },
    faculty:{
      type:new GraphQLList(TeacherType),
      args:{name:{type:GraphQLString}},
      resolve(parent,args){
        return courseModel.find({FACULTY:args.name})
      }
    },
    course:{
      type:new GraphQLList(CodeType),
      args:{code:{type:GraphQLString}},
```

```
resolve(parent,args){
        return courseModel.find({CODE:args.code});
      }
    }
  })
});
module.exports = new GraphQLSchema({
  query:RootQuery
});
routes - Folder:
    • auth_routes.js
const router = require('express').Router();
const passport = require("passport");
//google auth
router.get('/google',passport.authenticate('google',{
//This is the info we want to retreive
  scope:["profile"]
}));
//This path gets reached after google oauth, which returns a key as a get parameter. passport.authenticate
//again authenticates the key for information exchange
router.get('/google/redirect',passport.authenticate('google'),(req,res)=>{
  //callback URI
  req.session.email = req.user.email;
  res.redirect("/timetable");
});
module.exports = router;
       chatbot.js
const router = require("express").Router();
const courseModel = require("../db/model").courseModel;
// webhook fulfillment
```

router.post("/chatbot",(req,res)=>{

```
// in params we need -> code, faculty and slot
  // to extract parameters oout of spoken words
let params = req.body.queryResult.parameters;
courseModel.findOne({CODE:params.code, FACULTY: params.faculty, SLOT: params.slot})
.then((course) => {
  if(!course) {
     return res.status(200).send({
      "fulfillmentText":`No classroom was found with the provided details, try matching exact details`,
      "fulfillmentMessages":[{"text":{"text":[`No classroom was found with the provided details, try matching exact
details`]}}],
      "source":""
    });
  } else {
    let count = parseInt(process.env.COURSE LIMIT) - course.COUNT
    if(count == 0) {
      return res.status(200).send({
        "fulfillmentText":`No more seats left for this class`,
        "fulfillmentMessages":[{"text":['No more seats left for this class']}}],
        "source":""
      });
    }
      // send fullfillment
    return res.status(200).send({
      "fulfillmentText": This particular class has ${count} out of ${process.env.COURSE LIMIT} seats left,
      "fulfillmentMessages":[{"text":{"text":[`This particular class has ${count} out of ${process.env.COURSE LIMIT}
seats left`]}}],
      "source":""
    });
  }
}).catch(console.log)
});
module.exports = router;
```

nosignup.js

const model = require("../db/model").courseModel;

```
const router = require("express").Router();
router.get("/",(req,res)=>{
  res.render("timetable2");
});
/**
* @api {post} /timetable fetch timetable
* @apiName fetch timetable
* @apiGroup no-signup
* @apiParam {string} CODE course code
* @apiParamExample {json} request-example
* {
       "CODE":"MAT2001"
}
*/
router.post("/timetable",(req,res)=>{
console.log(req.body);
  model.find({CODE:req.body.CODE}).then((data)=>{
    //let segregated_data = segregateData(data);
    res.send( JSON.stringify(data) );
 });
});
module.exports = router;
       route.js
const model = require("../db/model").courseModel;
const profileModel = require("../db/model").profileModel;
//to segreagate data into morning and evening theory and lab slots
const segregateData = require("../db/helpers").segregateData;
//hash function for storing passwords
const hashAndSave = require("../db/helpers").hashAndSave;
```

```
//verification middleware
const verifyRoute = require("../db/helpers").verifyRoute;
//to check hashed password
const bcrypt = require("bcrypt");
//set up router
const router = require("express").Router();
router.get('/',(req,res)=>{
  res.render('index');
});
router.post('/',(req,res)=>{
  //if posted registration form
  if(req.body.confirm !== undefined){
    var obj = { email:req.body.email,passwd:req.body.passwd };
    profileModel.findOne( {email:req.body.email} ).then(function(data){
      if(data === null ){
         obj = new profileModel( { email:req.body.email,passwd:req.body.passwd,courses:[] } );
         hashAndSave(obj).then(()=>{
           //save user email in cookies
           req.session.email = req.body.email;
           res.redirect('/timetable');
         }).catch(err=>console.log(err));
      }
      else{
         res.send("Someone with this email already exists");
      }
    });
  }
  //if trying to log in
  else{
    profileModel.findOne( {email:req.body.email} ).then((data)=>{
      if(data === null)
         res.send("User not found");
      else{
         //check hash against password
```

```
bcrypt.compare(req.body.passwd,data.passwd,(err,result)=>{
            if(result){
              //save user email in cookies
              req.session.email = req.body.email;
              res.redirect('/timetable');
            }
            else
             res.send("incorrect password");
        });
      }
  }).catch(err=>console.log(err));
  }
});
router.get("/timetable",verifyRoute,(req,res)=>{
  res.render("timetable");
});
router.get("/timetable/fetch",verifyRoute,(req,res)=>{
  //add timetable looking up TODO
  profileModel.findOne( {email:req.session.email} ).then( (data)=>{
    //to calculate total number of credits
    var credits = (elements)=>{
      var summ=0;
      for(element of elements){
        summ += parseInt(element.CREDITS);
      }
      return summ;
    }
    res.json({data:data.courses,credits:credits(data.courses)});
  }).catch(err=>console.log(err));
});
router.post("/timetable",verifyRoute,(req,res)=>{
  model.find({CODE:req.body.CODE}).then((data)=>{
    //let segregated_data = segregateData(data);
    res.send( JSON.stringify(data) );
```

```
});
});
module.exports = router;
      slot_saving.js
const profileModel = require("../db/model").profileModel;
const model = require("../db/model").courseModel;
const router = require("express").Router();
var {
  checkClash,
  verifyRoute,
  probeCourseLimit,
  increaseCourseCount,
  decreaseCourseCount
} = require("../db/helpers");
router.get("/logout",verifyRoute,(req,res)=>{
  req.session.email=";
  if(req.user) req.logout();
  res.redirect('/');
});
/* makes an array of clicked course slots and matches them against all alots in the database,
if match found then slot clashed */
//There is a better method to do this
router.post("/save",verifyRoute,async (req,res)=>{
  console.log(req.session.email+" Logged in");
  // make an array of slots of the courses being registered
  let slots = req.body.SLOT.split("+"),str = ",cr = 0;
  //string waits for the promise to be completed and then gets assigned the value of all the slots
  let variable = await profileModel.findOne( {email:req.session.email} ).then( (data)=>{
    data.courses.forEach( (element)=>{
      //make a string by concatenating all slots in courses
      str += (element.SLOT + '+');
      cr += parseInt(element.CREDITS);
    });
```

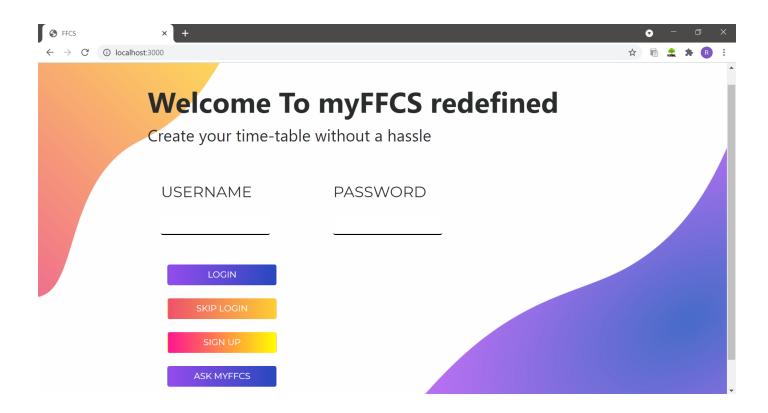
```
return {slots:str,credits:cr};
  }).catch( (err)=>{
    console.log(err);
  });
  console.log("total credits = "+(parseInt(req.body.CREDITS)+variable.credits) );
  //TODO check if applying for same course again, TODO theory and lab clashes
  // if requested for a course which makes more than 27 total credits then throw alert
  if(variable.credits + parseInt(req.body.CREDITS) > 27)
    res.send( {status:"limit",info:27-variable.credits} );
  //checkClash returns a clashed slot if slots are clashed
  else if( checkClash(slots,variable.slots) )
    res.send( {status:"clashed",info:slot} );
  else {
    // check if course limit reached
    probeCourseLimit(req.body)
    .then((cnt)=>{
      let count = parseInt(process.env.COURSE_LIMIT)-cnt-1
      console.log(count)
      increaseCourseCount(req.body)
      .then(()=>{
         profileModel.update( {email:req.session.email}, {$push: {courses:req.body} } ).then( ()=>{
           console.log("updated");
           res.send( { status:"updated",info:variable.credits + parseInt(reg.body.CREDITS), count,course:reg.body } );
         });
      }).catch(msg=>res.send({status: "course_limit", info :"Error increasing limit"}))
       //if no clash then update the database
    }).catch(msg => {
      res.send(res.send({status: "course_limit", info:msg}))
    })
  }
});
//deletes an element after clicking on a specific button
router.delete('/del',verifyRoute,(req,res)=>{
 console.log(req.body);
```

```
if(req.body._id === undefined){
  profileModel.update({email:req.session.email}, { $set : {courses: [] }} , {multi:true} ).then(()=>{
   return res.send("Deleted courses array");
  }).catch(console.log);
 }
  profileModel.update( {email:req.session.email},{$pull: {courses:{_id:req.body._id}} } ).then( ()=>{
    console.log("removed course!");
    decreaseCourseCount(req.body)
      .then(()=>{
         res.send("Deleted course")//res.redirect("/timetable");
      }).catch(msg=>res.send({status: "course_limit", info :"Error increasing limit"}))
  }).catch( (err)=>{
    console.log(err);
  });
});
//predictive text, receives AJAX requests after typing every character in input box
router.post('/predict',verifyRoute,(req,res)=>{
  var array=[],unique=[];
  //matches regex for text
  model.find( {CODE: {$regex: req.body.code } } ).then((data)=>{
    if(data===undefined) res.send(");
    //to send only titles and course codes to the front end
    for(element of data){
      var obj = {code:element.CODE,title:element.TITLE};
      //TODO need to remove duplicate results, but not working
      if(array.indexOf(obj)===-1)
         array.push(obj);
      //to send just 5 results
      if(array.length === 5)
         break;
    };
    //console.log(array);
    res.send(array);
  });
```

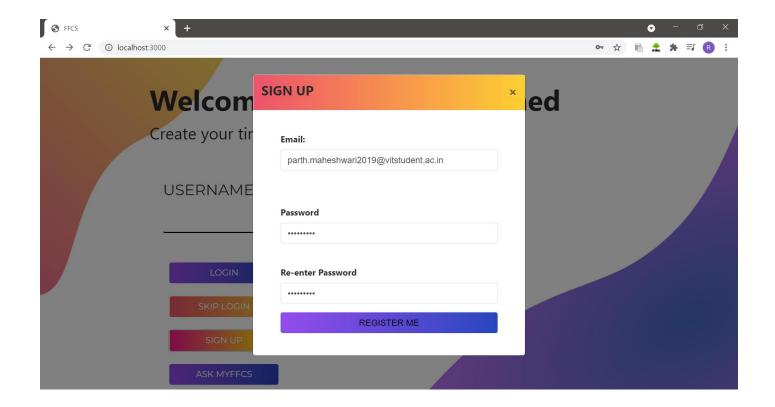
```
});
router.get("/classSize", (req, res) => {
    res.send(process.env.COURSE_LIMIT)
})
module.exports = router;
```

OUTPUT SCREENSHOTS:

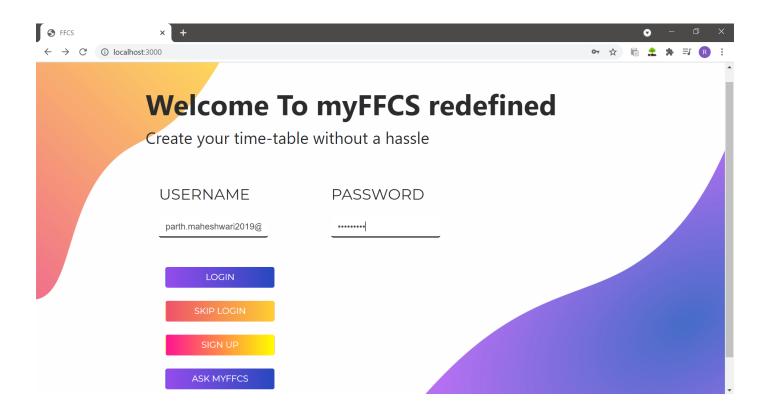
Initial webpage:



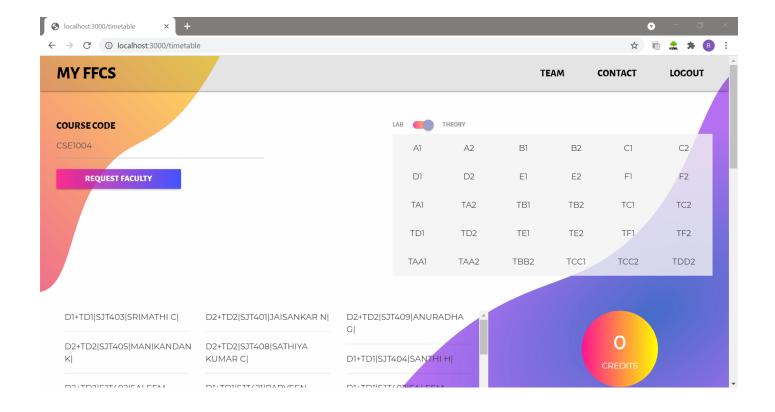
The user can sign up for this website by filling the form.



The user can also login to your account by entering correct username and password.



The user can search for courses and select the slots.



All the data about courses are already stored in MongoDB (database) - courses. And so, when user search for course, all the data about that course is retrieved from the database and is displayed.

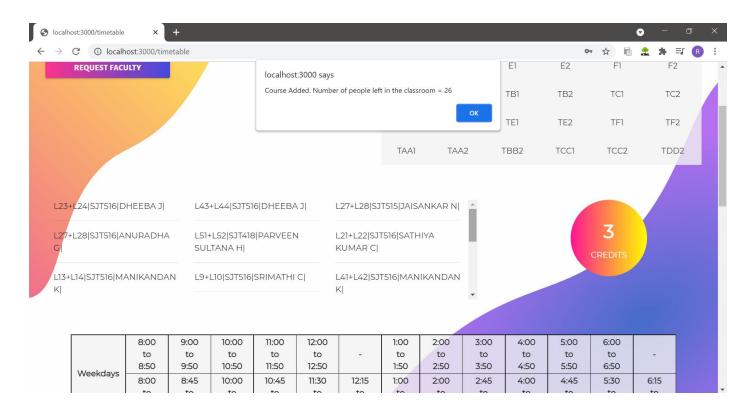
```
> db.courses.find().limit(2).pretty()

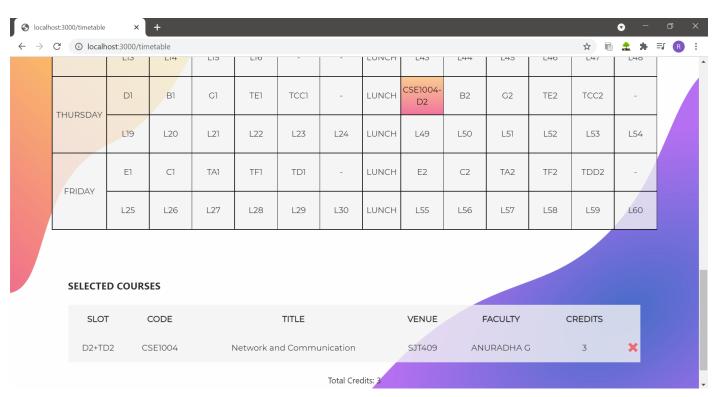
{
    "_id" : ObjectId("60bc88da36d64c4bbc41a9bb"),
    "COUNT" : 0,
    "VENUE" : "LIB401",
    "CODE" : "ARC1008",
    "TITLE" : "Art Forms Appreciation",
    "TYPE" : "TH",
    "CREDITS" : "3",
    "SLOT" : "E1+TE1",
    "FACULTY" : "VIDYALAKSHMI S",
    "__v" : 0

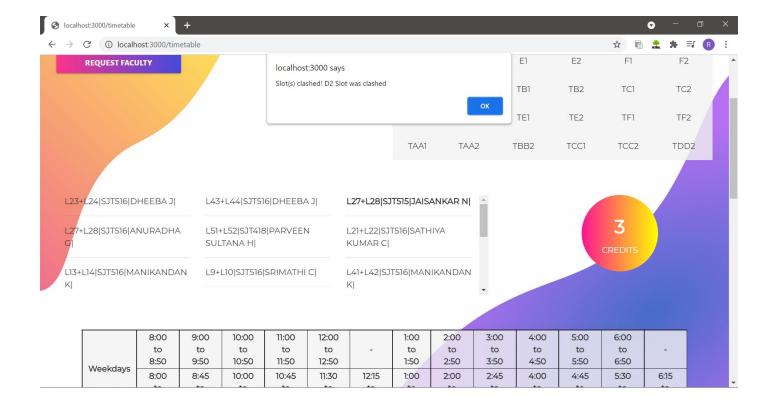
}

{
    "_id" : ObjectId("60bc88da36d64c4bbc41a9c0"),
    "COUNT" : 0,
    "VENUE" : "LIB401",
    "CODE" : "ARC1019",
    "TITLE" : "Principles of Structures",
    "TYPE" : "ETH",
    "CREDITS" : "2",
    "SLOT" : "B1",
    "FACULTY" : "VISWANATHAN T S",
    "__v" : 0
}
```

If seats are available for the selected slot and if the slots do not clash, then it will register it. The user can also remove a course by clicking on cross.







All the data are stored in MongoDB (database) – profiles, so that when the user signs in again, all the registered courses will be still there.

