GROUP 12

BIT Project Evaluation Support System, UCSC

(Web-Based)

OUR TEAM

Supervisor: Dr. Thushani Weerasinghe

Mentor : Mrs. K.M.H.B Abeyrathna

Team :

K.A.T Lakshan	(15000753)
G.S.T.Perera	(15000958)
B.M.Perera	(15020487)
A.W.L.Roshika	(15001172)
G.G.M.S. Ariyasena	(15020053)
C.R. Vidanachchi	(15001393)

CLIENT

BIT Project Coordinator, UCSC

Mr. Viraj Welgama

Reasons for Automation

- Huge workload for project assistant coordinator
  - Time consuming
  - Lots of errors
- Poor communication between students and the UCSC

GOAL AND OBJECTIVES

Our main Goal is to improve the efficiency and speedup the existing process by using a web-based system

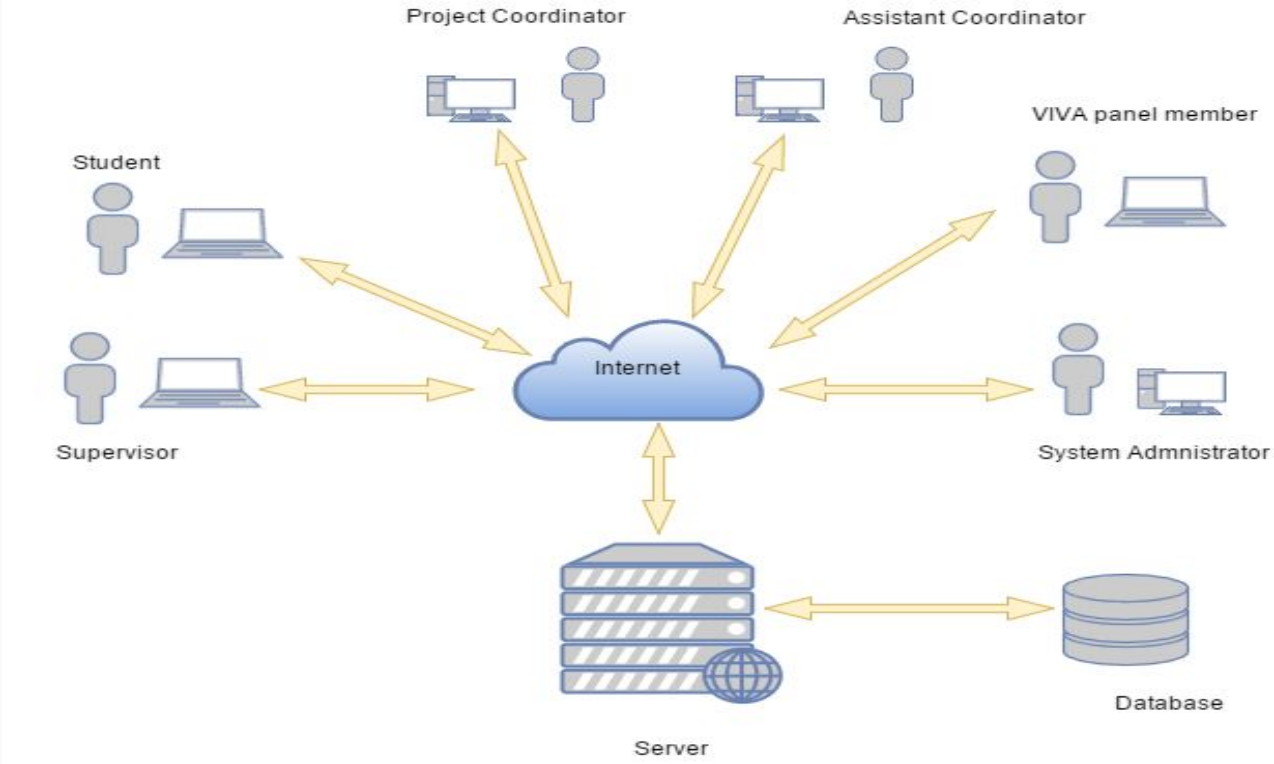
- Focus on each student's progress throughout the year by keeping the records of their submissions
- Send reminders to students about each and every submission within the project time period
- Reduce human errors by automating some of the work that's been carried out by the assistant coordinator

High-level solution Description

- A web application which can help

  - final year BIT students to submit their forms and reports.
  - project coordinator to search students details and evaluate reports
  - Supervisor to check and accept or reject reports
  - View current progress of student
  - VIVA panel member to insert and change their available time slots

High level architectural diagram



Revised & Prioritized Requirement

- Login
- Main interface for each user
- Submit forms and reports
- Read the excel sheet and transform that data to the database
- Search student details
- Mark reports

Revised & Prioritized Requirement ctd.

- Check forms
- Add final exam marks
- Accept or reject forms
- Report issues/problems
- View progress
- Schedule viva panels
- Send reminders through SMS

Current Progress

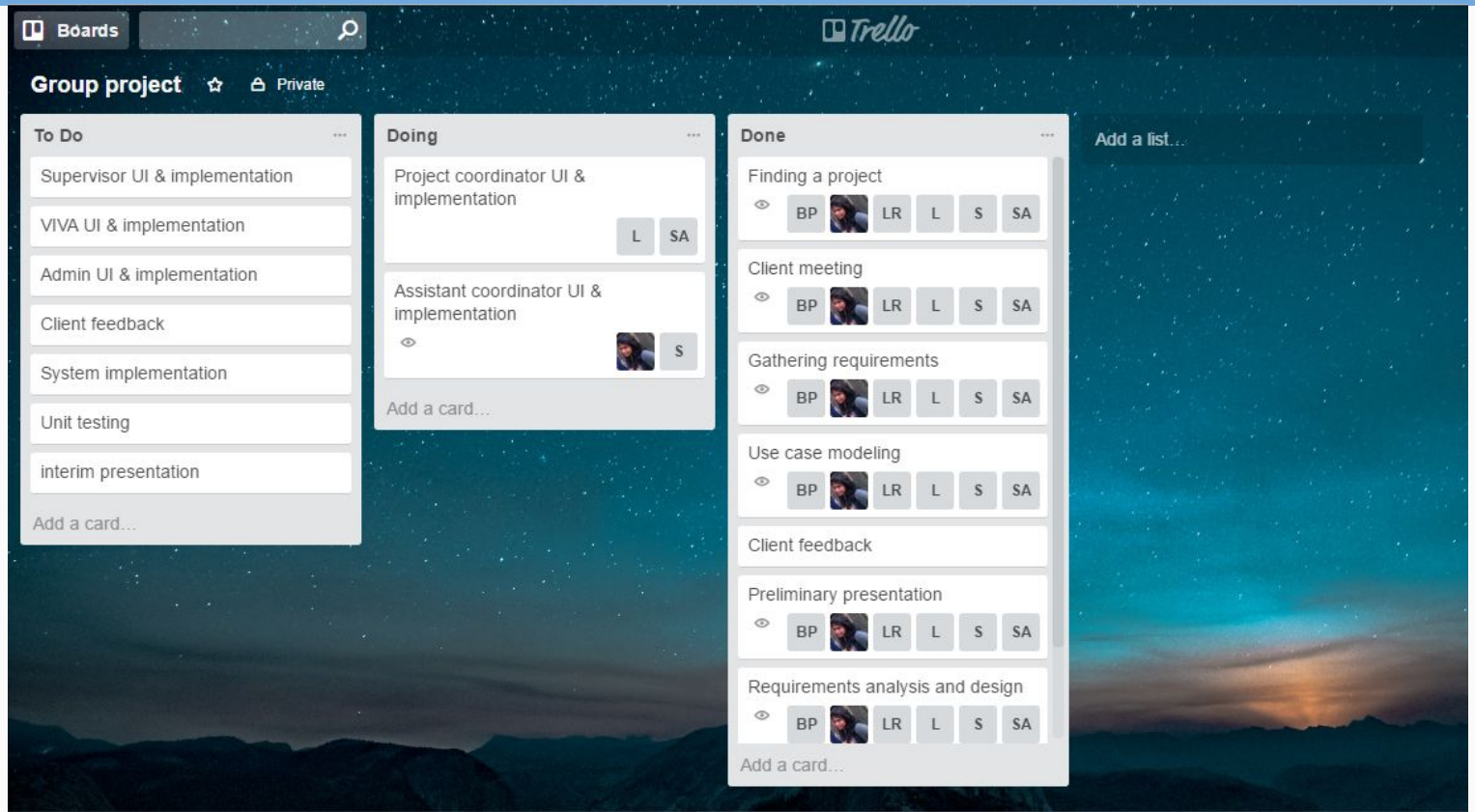
- **60% of the user Interfaces have been developed**
- **25% of the backend development is done**

  User login

  Submit forms to the system including CRUD operations (Student interface)

  Main Interface for each user

Current Progress ctd.



Technical exposure

- Development - Backend :-Java EE
- Development - FrontEnd :-HTML, Bootstrap,Angular JS
- DBMS :- MySql
- IDE :- Eclipse

Technical exposure

- Version Controlling - Git
- Project Management - Trello

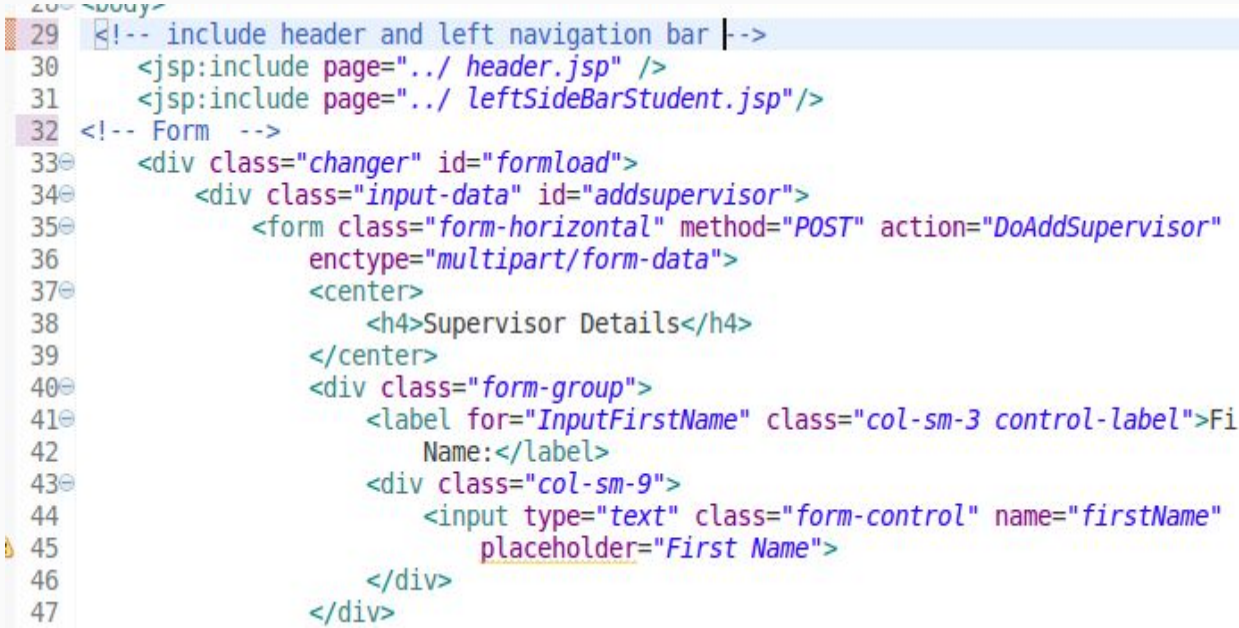
Quality assurance

When it comes to the Quality Assurance we are mainly focusing on following factors.

- Correctness
- Reliability
- Integrity
- Maintainability
- Portability
- Reusability

Best Practices

- Maintain the readability of the code Structure and Commenting
- Avoid Code Duplication



```
29  <!-- include header and left navigation bar -->
30      <jsp:include page="../ header.jsp" />
31      <jsp:include page="../ leftSideBarStudent.jsp"/>
32  <!-- Form  -->
33      <div class="changer" id="formload">
34          <div class="input-data" id="addsupervisor">
35              <form class="form-horizontal" method="POST" action="DoAddSupervisor"
36                  enctype="multipart/form-data">
37                  <center>
38                      <h4>Supervisor Details</h4>
39                  </center>
40                  <div class="form-group">
41                      <label for="InputFirstName" class="col-sm-3 control-label">Fi
42                          Name:</label>
43                      <div class="col-sm-9">
44                          <input type="text" class="form-control" name="firstName"
45                              placeholder="First Name">
46                      </div>
47                  </div>
```

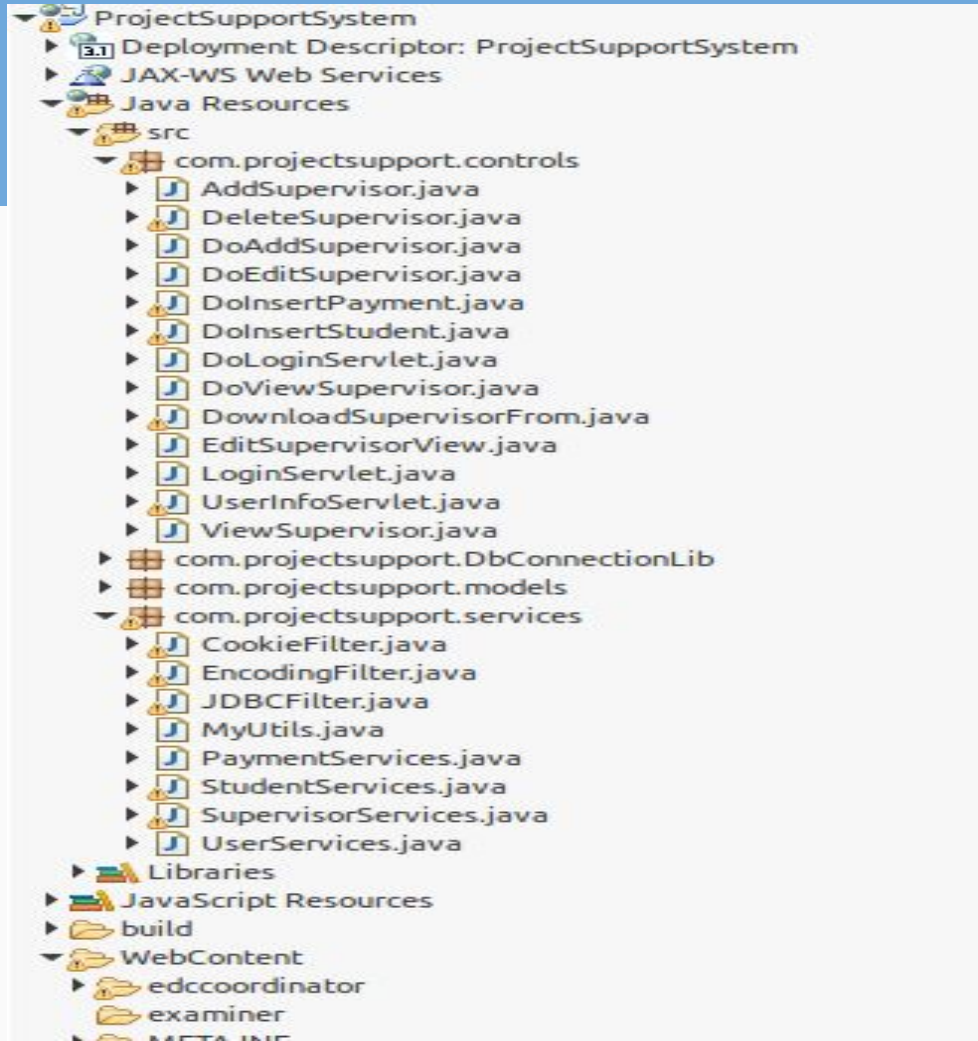
Best Practices

- Variable Naming and Method naming

```
1  package com.projectsupport.models;
2
3  public class Supervisor {
4      int studentId;
5      String firstName;
6      String lastName;
7      String email;
8      String mobileNo;
9      String address;
10     String agreementFormPath;
11     public int getStudentId() {
12         return studentId;
13     }
14     public void setStudentId(int studentId) {
15         this.studentId = studentId;
16     }
17     public String getFirstName() {
18         return firstName;
19     }
20     public void setFirstName(String firstName) {
21         this.firstName = firstName;
22     }
23     public String getLastName() {
24         return lastName;
25     }
```

Best Practices

- Managing File Structure



Client Feedback

- Current version of system was evaluated by assistant project coordinator

  Outcomes -

  - login to the EDC Coordinator was eliminated from the system
  - Interfaces were updated

Testing

- **Manual Testing:**
  - Alpha testing
  - Beta testing
  - White box testing
  - Unit testing
  - Integration testing
  - System Testing
  - Acceptance testing

Testing

- **Automated Testing:**
  - Selenium (for testing the front end)
  - Mockito for test units (service methods)

Deployment plan

- Access will be given to few volunteered students, project coordinator and assistant coordinator to the system.
- System link will be provided along with VLE
- We are hoping to Deploy the system parallely, It would reduce the risk

Theoretical & Technical Knowledge gained

- Requirements gathering methodologies
- Feasibility study
- User interface design and development
- MVC Architecture
- Two-way data binding

Individual Contribution

Back-end development team

K.A.T Lakshan	15000753
G.S.T.Perera	15000958
A.W.L.Roshika	15001172

Individual Contribution

Front-end development team

C.R.Vidanaarachchi	15001393
G.G.M.S Ariyasena	15020053
B.M Perera	15020487

Demonstration


Thank You !!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