

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

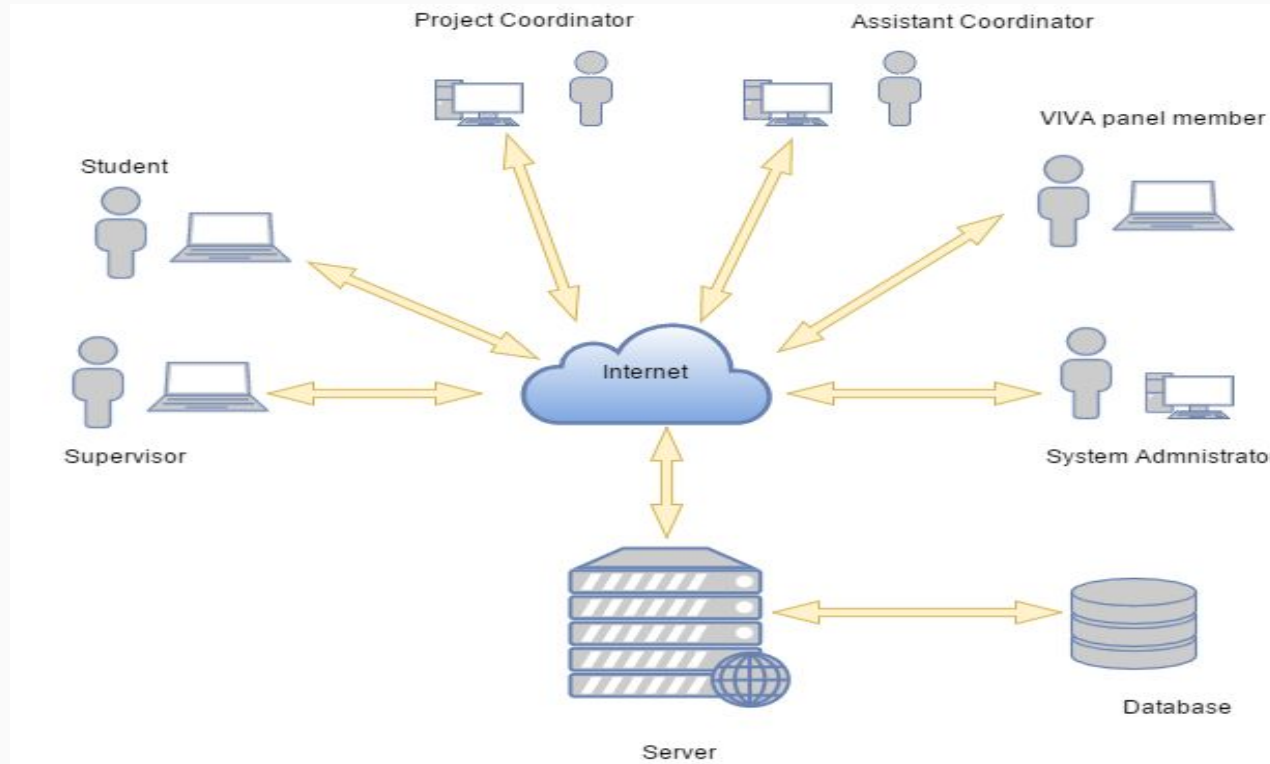
- ▶ **Focus on each student's progress throughout the year by keeping the records of their submissions**
- ▶ **Send reminders to students about each and every submission within the project time period**
- ▶ **Reduce human errors by automating some of the work that's been carried out by the assistant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

The screenshot displays a Trello board for a 'Group project'. The board is organized into three main columns: 'To Do', 'Doing', and 'Done'. Each column contains a list of tasks or cards. The 'To Do' column lists tasks like 'Supervisor UI & implementation', 'VIVA UI & implementation', 'Admin UI & implementation', 'Client feedback', 'System implementation', 'Unit testing', and 'interim presentation'. The 'Doing' column shows 'Project coordinator UI & implementation' and 'Assistant coordinator UI & implementation', both with assigned team members (L, SA and S respectively). The 'Done' column lists completed tasks such as 'Finding a project', 'Client meeting', 'Gathering requirements', 'Use case modeling', 'Client feedback', 'Preliminary presentation', and 'Requirements analysis and design', each with assigned team members (BP, LR, L, S, SA). The board interface includes a search bar, a 'Boards' tab, and a 'Private' status indicator. The background of the board is a starry night sky.

Boards Group project ☆ Private

To Do

- Supervisor UI & implementation
- VIVA UI & implementation
- Admin UI & implementation
- Client feedback
- System implementation
- Unit testing
- interim presentation
- Add a card...

Doing

- Project coordinator UI & implementation (L, SA)
- Assistant coordinator UI & implementation (S)
- Add a card...

Done

- Finding a project (BP, LR, L, S, SA)
- Client meeting (BP, LR, L, S, SA)
- Gathering requirements (BP, LR, L, S, SA)
- Use case modeling (BP, LR, L, S, SA)
- Client feedback
- Preliminary presentation (BP, LR, L, S, SA)
- Requirements analysis and design (BP, LR, L, S, SA)
- Add a card...

Add a list...

Technical exposure

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



Bootstrap



ANGULARJS



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>
```

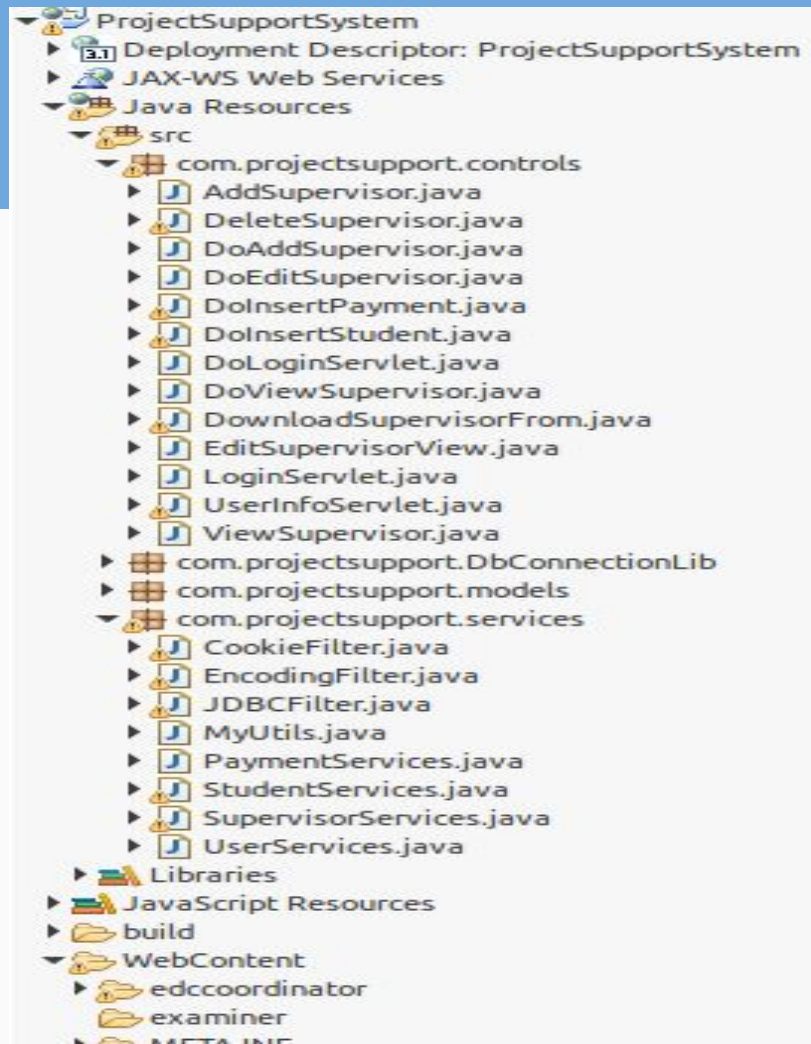

Best Practices

▶ 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    }
26 }
```

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



A world map is centered in the background, showing the continents of North America, South America, Europe, Africa, Asia, and Australia. The map is rendered in a light blue color against a darker blue background. The text "Thank You !!" is overlaid in the center of the map.

Thank You !!

