DEPARTMENT OF ELECTRONIC AND TELECOMMUNICATION ENGINEERING UNIVERSITY OF MORATUWA



CS2832 – Modular Software Development

Group Project

University Internship Management System (Web Based)

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Contents

[1 Introduction 2](#_Toc31493247)

[2 Requirement specifications 3](#_Toc31493248)

[2.1 Student 3](#_Toc31493249)

[2.2 Company 3](#_Toc31493250)

[2.3 Administrator 3](#_Toc31493251)

[3 Use case diagrams 4](#_Toc31493252)

[3.1 Admin use case diagram 4](#_Toc31493253)

[3.2 Company use case diagram 5](#_Toc31493254)

[3.3 Student use case diagram 6](#_Toc31493255)

[4 Design Process UML Diagrams 7](#_Toc31493256)

[4.1 Class Diagram 7](#_Toc31493257)

[4.2 Student Sequence Diagram 8](#_Toc31493258)

[4.3 Company Sequence Diagram 9](#_Toc31493259)

[5 Architecture Description 10](#_Toc31493260)

[6 Development Process 11](#_Toc31493261)

[6.1 Software Packages Used for Implementation 11](#_Toc31493262)

[6.1.1 Sublime Text Interface 12](#_Toc31493263)

[6.1.2 Webmin Interface 12](#_Toc31493264)

[6.2 Hosting and Domain Name 13](#_Toc31493265)

[6.3 Creating Interfaces 13](#_Toc31493266)

[6.3.1 Login Interface 13](#_Toc31493267)

[6.3.2 Signup Interface 14](#_Toc31493268)

[6.3.3 Administrator Interface 15](#_Toc31493269)

[6.3.4 Student Interface 16](#_Toc31493270)

[6.3.5 Company Interface 17](#_Toc31493271)

[6.4 Creating Database 18](#_Toc31493272)

[6.5 Backend Programming 19](#_Toc31493273)

[7 Testing and evolution 19](#_Toc31493274)

[8 Login Details for User Accounts 20](#_Toc31493275)

# Introduction

This is a system which connects undergraduate students and companies who is offering internships. In this software there are three end users.

1. Undergraduate students
2. Companies
3. Administrators

This report describes software process of this software, including requirement specification with use case diagrams, architecture description diagrams and development process of our software.

We have implemented this software using our knowledge of HTML, PHP, CSS, MySQL.

# Requirement specifications

## Student

* Student should be able to create an account
* Student should be able to edit his profile
* Student should be able to upload his CV to have a better idea about him
* Student should be able to search companies and view their profiles
* Student should be able to apply companies
* Student should be able to accept request from the companies
* Student should be able to change his account’s password

## Company

* Company should be able to create an account
* Company should be able to edit their profile
* Company should be able to show their skill requirements to have an idea about what they need
* Company should be able to search students and view their profiles
* Company should be able to send requests to students
* Company should be able to confirm applied students
* Company should be able to change their account’s password

## Administrator

* There should be a super Admin whose account can’t delete
* Admin should be able to edit his profile
* Admin should be able to add another Admin and edit his profile
* Admin should be able to add another Student and edit his profile but he could not be able to apply companies
* Admin should be able to add another Company and edit their profile but he could not be able to send requests to students
* Admin should be able to search students and view their profiles
* Admin should be able to search companies and view their profiles
* Admin should be able to change their account’s password

# Use case diagrams

## A picture containing text, map Description automatically generatedAdmin use case diagram

## A picture containing text, map Description automatically generated3.2 Company use case diagram

## A picture containing text Description automatically generated Student use case diagram

# Design Process UML Diagrams

## A close up of text on a white background Description automatically generated4.1 Class Diagram

## 4.2 Student Sequence Diagram

**A close up of a map

Description automatically generated**

## 4.3 Company Sequence Diagram

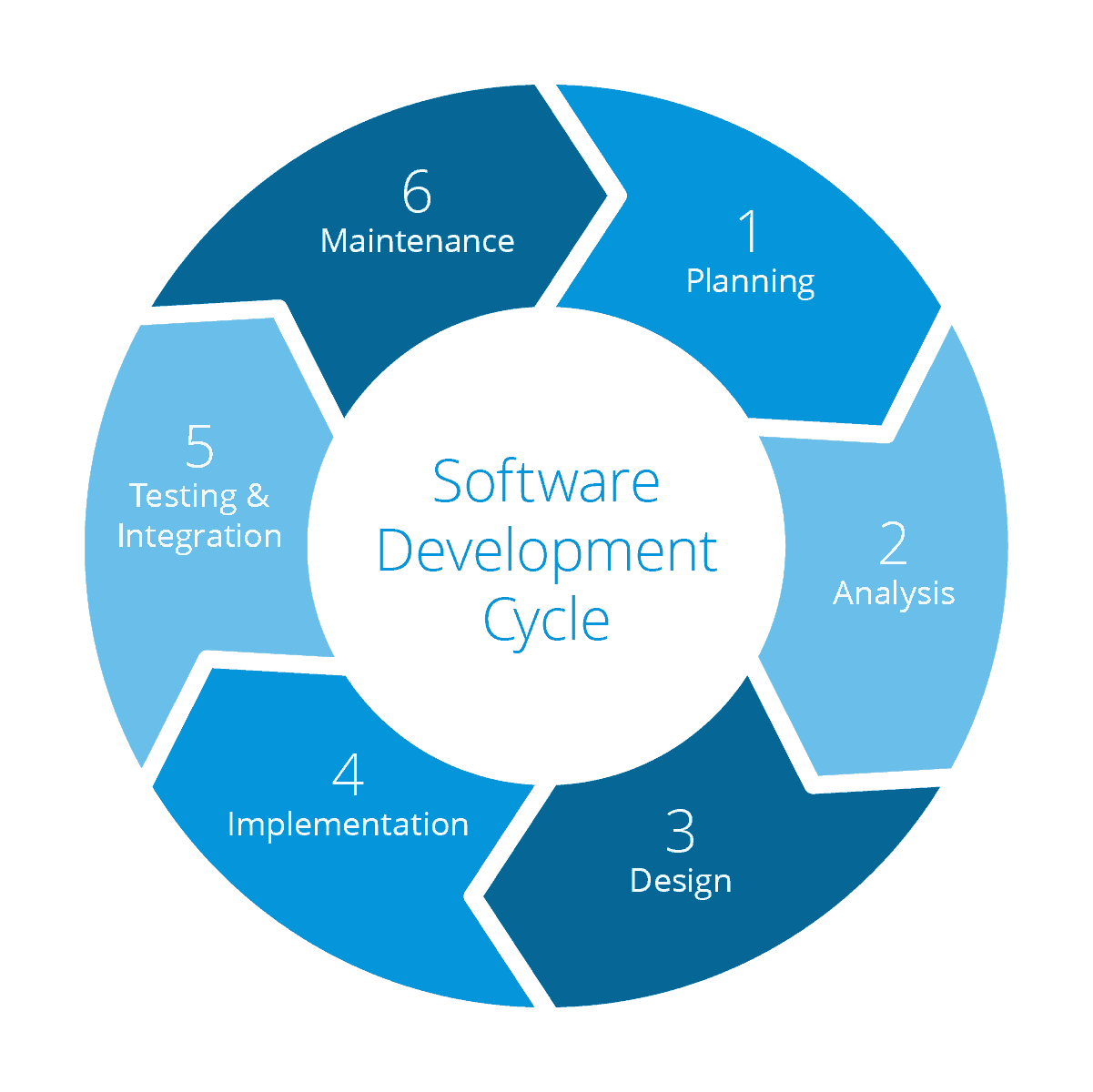
**A screenshot of a social media post

Description automatically generated**

# Architecture Description

For this website we used layered architecture. Following diagram will describe the architecture

# Development Process

We have identified that the most suitable development method for our project is “Agile Development”. That is because we had a tight schedule to plan, implement and test.

## 6.1 Software Packages Used for Implementation

|  |  |
| --- | --- |
| Software | Purpose |
| Sublime Text, VS Code | Text editor |
| WAMP | Managing local server |
| GIT Desktop | Managing repositories |
| WebMin | Host server management (GUI) |
| Microsoft Edge, Google Chrome | Web browser |
| FileZilla | FTP control to host |
| PuTTY | Host server management (CLI) |

### **A screenshot of a computer screen Description automatically generated6.1.1 Sublime Text Interface**

### **6.1.2 Webmin Interface**

A screenshot of a cell phone

Description automatically generated

## 6.2 Hosting and Domain Name

We have obtained the domain name “internspaths.ml” for free for 1 year of period from [www.freenom.com](http://www.freenom.com). Hosting is achieved by AWS Educate as we can have a student account for our university email address.

In AWS educate EC2 console we created an ubuntu instance as our virtual server. Elastic IP that have been allocate for our server is 52.86.141.54. Initial setup of the server is done using PuTTY as the CLI. Then we configure Webmin for easy access for the server. FileZilla is used to upload new contend to the server.

## 6.3 Creating Interfaces

All the web interfaces are created using HTML, CSS, JavaScript to have the required design for us. Some of the online available templates were referred in order to have a good design.

### **6.3.1 Login Interface**

A white flower with green leaves

Description automatically generated

Login interface is common for all type of users (Students, Company, Administrators). Server will identify the user type and redirect the user to the correct console. Login interface is the first thing a visitor sees when comes to the website. If he/she is a new user, then they can click “Sign up now” to create a new account as a Student or a Company. New administrator can only be added by an admin. If any user forgot their password, they could reset their password by giving required credentials.

### **6.3.2 Signup Interface**

A close up of a flower

Description automatically generated

New users can create their account here as Students or Companies. Form data validation is done in the backend using PHP.

### **6.3.3 Administrator Interface**

A screenshot of a cell phone

Description automatically generated

Home page of the administrator console contains count of each type of users. Administrators can manage student, company and administrator data tables. He/ She can add new users, edit user profiles, delete accounts & reset user passwords. However, we decide to restrict the administrator from manipulating Company – Student relationships.

### **6.3.4 Student Interface**

A screenshot of a social media post

Description automatically generated

Student can maintain their own profile and include their CV to it. They can view the list of companies, filter them according to their needs, view company details and then then can apply for internships in a company. Also, students can accept internship invitations.

### **6.3.5 Company Interface**

A screenshot of a cell phone

Description automatically generated

A company can maintain their own profile and with their information about who are they looking to have for internships, what kind of skills there are looking for and so on. They can view the list of students, filter them according to their needs, view student details and then they can invite student for internships in the company. Also, companies are allowed to accept internship requests of students.

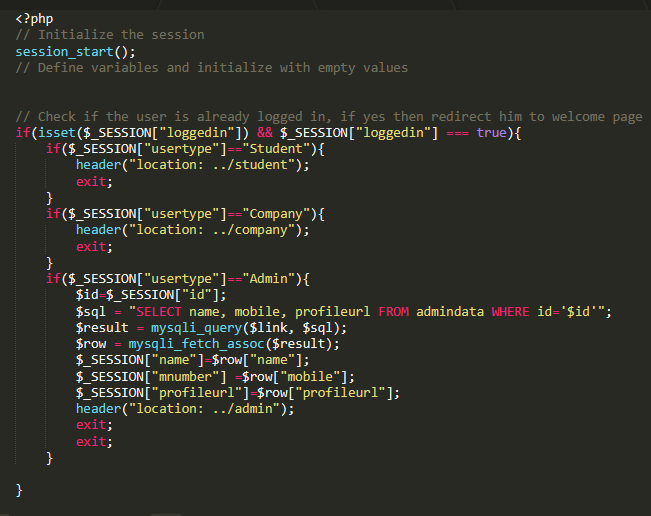
## 6.4 Creating Database

A screenshot of a social media post

Description automatically generatedWe created SQL databases using phpMyAdmin. Our database name is logindetails and it contains four tables named as users, admin, student and company.

## 6.5 Backend Programming

Backend of the system is programmed using php. We followed some tutorials on w3schools to have enough knowledge to implement the backend of the system.



# Testing and evolution

We developed this website using agile development process. It means that this system was developed step by step. We tested each unit while developing (unit testing). if there were errors, we had to repeat the developing process for regarding unit. When we completed the unit testing, we focused on testing the whole system.

To execute the system testing process, we tested our system on sample users. Then we changed our system according to their feedback.

# Login Details for User Accounts

|  |  |  |  |
| --- | --- | --- | --- |
| Username | User Type | Email | Password |
| SuperAdmin | Admin | [sadmin@internspaths.ml](mailto:sadmin@internspaths.ml) | admin@Internspaths |
| Shamal | Admin | [shamalchamara@gmail.com](mailto:shamalchamara@gmail.com) | SCJ@1996 |
| Chamara | Student | [chamara@internspaths.ml](mailto:chamara@internspaths.ml) | Chamara@Internspaths |
| ParaqumTech | Company | [paraqum@internspaths.ml](mailto:paraqum@internspaths.ml) | Paraqumtech@Internspaths |
| MITesp | Company | [Mitesp@internspaths.ml](mailto:Mitesp@internspaths.ml) | Mitesp@Internspaths |
| Shehan Sandeepa | Student | Adhikarishehan100@gmail.com | 9725@Shehan |
| Esol | Company | keerthi@effectivesolutions.com | Esol@internpaths |
| Shehan Adhikari | Admin | shehanadhikari@gmail.com | shehan@intern |
| Isuru\_Jayaweera | Student | [itjayaweera@gmail.com](mailto:itjayaweera@gmail.com) | Isuru@1234 |
| Aptinex | Company | info@aptinex.com | Aptinex@1234 |
| Isuru | Admin | isuru@internspaths | Isuru@1234 |

URL – <http://www.internspaths.ml>