

Enterprise Web Software Development (COMP1640)

Group Documentation

Table of Contents

| 1. Intro | duction of the system | 6 |
|------------|---|----|
| Introducti | ion | 7 |
| 1.1 Ob | ejective of the Project | 7 |
| 1.1.1 | Submit EC Claims | 7 |
| 1.1.2 | Manage closure dates | 7 |
| 1.1.3 | Email Notification | 7 |
| 1.1.4 | Approve or Reject Claims online | 8 |
| 1.1.5 | Users login to the system | 8 |
| 1.1.6 | Statistical Analysis | 8 |
| 1.1.7 | Responsive Design | 8 |
| 1.1.8 | User Friendly Interfaces | 8 |
| 1.1.9 | Produce Reports | 8 |
| 1.2 Re | ason for developing EC system | 9 |
| 2. Syst | ems Requirements | 10 |
| 2.1 Re | quirement Catalog | 11 |
| 2.1.1 | Functional Requirements | 11 |
| 2.1.1 | .1 Login process – Must have requirement | 11 |
| 2.1.1 | .2 Create system users – Must have requirement | 11 |
| 2.1.1 | .3 Submit EC claims with Evidence – Must have requirement | 11 |
| 2.1.1 | .4 View and Edit the EC claims – Must have requirements | 11 |
| 2.1.1 | .5 Email Notification – Must have requirement | 11 |
| 2.1.1 | .6 Responsive design –Must have requirement | 11 |
| 2.1.1 | .7 User Friendly interfaces – Should have requirement | 12 |
| 2.1.1 | .8 Statistical Analysis – Should have requirement | 12 |
| 2.1.1 | .9 Produce Reports – Could have requirement | 12 |
| 2.1.1 | .10 Manage closure dates online – Won't have requirement | 12 |
| 2.1.2 | Non – Functional Requirements | 12 |
| 2.1.2 | 2.1 Delete Users – Must have requirements | 12 |
| 2.1.2 | Register EC Manager and EC Coordinator – Should have requirements | 12 |
| 2.1.2 | 2.3 Animate the Images – Won't have requirements | 13 |
| 3. Requ | uirement Specification | 14 |
| | | |

| 3.1 | High | n – level use case diagram for EC system | 15 |
|-----|----------|---|----|
| 3 | 3.2 Us | se Case Description | 16 |
| | 3.2.1 U | Use case description for Login | 16 |
| | 3.2.2 U | Use case description for Submit EC claim | 16 |
| | 3.2.3 U | Use case Description for View Claims | 17 |
| 3 | 3.3 Lo | ow Level Use Case Diagrams | 17 |
| | 3.3.1 I | Low Level use case for Manage the System Data | 17 |
| | 3.3.1.1 | Use case description for the manage the system data | 18 |
| | 3.3.2 | Low level use case for Edit Claims. | 18 |
| | 3.3.2.1 | Use case description for the Edit claims | 19 |
| 4. | System | n design | 20 |
| 4.1 | Enti | ty Relationship Diagram | 21 |
| 4.2 | Data | base Design of GreenIsland | 22 |
| 4 | 2.1 | Design of the User table | 22 |
| 4 | 2.2 | Design of the Administrator table | 22 |
| 4 | 2.3 | Design of the EC claims | 23 |
| 4 | .2.4 | Design of the EC Coordinator | 23 |
| 4 | 2.5 | Design of the Student | 24 |
| 4.3 | Data | base tables with sample test data | 24 |
| | 4.3.1 U | User table with test data | 24 |
| | 4.3.2 | Administrator table with data | 25 |
| | 4.3.3 I | EC Manager table with data | 25 |
| | 4.3.4 \$ | Student table with data | 26 |
| | | EC Coordinator table with data | |
| 4.4 | Nori | nalization | 27 |
| 4 | .4.1 | First Normalization | 27 |
| 4 | .4.2 Sec | cond Normalization | 27 |
| 4 | 4.2 | Third Normalization | 27 |
| 5. | System | n modeling | 28 |
| 5.1 | | s diagram | |
| 5.2 | | vity Diagram for the system | |
| 5 | 5.2.1 | Activity Diagram for user login | 30 |
| 5 | 5.2.2 | Activity diagram for Add claims | 31 |

| 5.2.3 Activity diagram for View claims | 32 |
|---|-----------------|
| 5.3 State chart diagrams for the system | 33 |
| 5.3.1 State chart diagram for the User login | 33 |
| 5.3.2 State chart diagram for add claims | 34 |
| 5.3.3 State chart diagram for the view claims | 35 |
| 5.4 Collaboration diagrams | 36 |
| 5.4.1 Collaboration diagram for user login | 36 |
| 5.4.2 Collaboration diagram for view claims | 36 |
| 5.5 Sequence diagrams for the system | 37 |
| 5.5.1 Sequence diagrams for user login | 37 |
| 5.5.2 Sequence diagram for view claims | 38 |
| 5.6 Screen designs for the system | 39 |
| 5.6.1 Screen design for the home page | 39 |
| 5.6.2 Screen design for the contact us form | 40 |
| 5.6.3 Screen design for EC Manager page | 41 |
| 5.6.4 Screen design for EC claims page | 42 |
| 5.7 Navigation structure of the project | 43 |
| 5.7.1 Navigation links for the system | 44 |
| 5.7.1.1 Navigation link for Home page | 44 |
| 5.7.1.2 Navigation link for CONTACT US | page44 |
| 5.7.1.3 Navigation link for MAIN page | 44 |
| 5.7.1.4 Navigation link for the EC claim pa | ge44 |
| 5.8 Screenshots of the University of GreenIsland | web pages45 |
| 5.8.1 Home page | 45 |
| 5.8.1.1 Coding of the home page | 45 |
| 5.8.2 Main page | 52 |
| 5.8.2.1 Coding of the Main page | 53 |
| 6. Testing of the system | 59 |
| 6.1 Test case for the Login in process for stude | ent and staff60 |
| 6.2 Test case for Submit EC claim | 60 |
| 6.3 Test case for Update Student details by admin | 61 |
| 6.4 Test case for Report Generations | 61 |
| 6.5 Test log of above processes | 62 |
| | |

| 6.5.1 Test log of login process for student and staff | 62 |
|---|----|
| 6.5.2 Test log for Submit EC claims | 63 |
| 6.5.3 Test log for Upload student details by Admin | 63 |
| 6.6 Test screenshots for the Test Cases | 64 |
| 6.6.1 Test screenshots for the test number 1.2 | 64 |
| 6.6.1.1 Error Message | 64 |
| 6.6.2 Test Screenshot for Test Number 1.5 | 64 |
| 6.6.2.1 Error Message for test number | 65 |
| 6.7 Errors and Debugging | 65 |
| 7. Minutes of the Meeting | 66 |
| 7.1 Meeting 1 | 67 |
| 7.2 Meeting 2 | 68 |
| 7.3 Meeting 3 | 69 |
| 7.4 Meeting 4 | 69 |
| 7.5 Meeting 5 | 70 |
| 7.6 Meeting 6 | 71 |
| 7.7 Burn Down chart for the system | 72 |
| 7.8 Gantt chart for the System Development | 73 |
| Conclusion | 74 |
| Figure List | 75 |
| Table List | 77 |

| 1. | Introduction | of the | system |
|----|--------------|----------------------|------------------|
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Introduction

When creating a group documentation to web based assignment, it is easy to gather fact to developing it because it is divided to all the team members of the group. In this group work has to develop an EC system for the University of GreenIsland that is a top ranked university of Sri Lanka. This is the first section of the documentation; in here we have added the objective of the developing the web based EC Claim System for university and also we have added why the university used EC System. Here is the main objective of the project.

1.1 Objective of the Project

When considering the system for the Greenisland university it must be a web-based and role based system which means the users of the system such as Administrator, EC Manager, Student and EC-Coordinator can access this system separately from the university area or from the remote area from the university. The main objective of the project is collecting and processing the Extenuating Circumstances claims from the students. The following are the objectives of creating web based EC system.

1.1.1 Submit EC Claims

The students of the each faculty and any academic year can submit EC claims for any assessment type through the system. But the fact is no one can upload the EC claims without having evidence.

1.1.2 Manage closure dates

Administrator can schedule the closure dates for submitting assessments through the system, and late submissions are not allow from the system without uploading EC claims.

1.1.3 Email Notification

After student is submitted the claims, the each faculty EC coordinator is updated it as an email notification. Then the EC coordinator has to process them according to the dates and nature of the claims. And also when the claim is processed the student receives the email notification that takes the decision. The Email notifications are always notices both EC coordinators and students regarding the Extenuating Circumstances claims.

1.1.4 Approve or Reject Claims online

The EC coordinators able to reject or approve the EC claims that are coming from the student through the system after processing them.

1.1.5 Users login to the system

The system administrator can create the login procedures for the users such as student, Ec manager and EC coordinator through this system and after they can access the system according to their privileges.

1.1.6 Statistical Analysis

Through system the users must be able to process the statistical analysis such as count the total number EC claims for the system. Number of claims that the one student is uploaded, calculate the number of EC claims that process by the one EC coordinator during the specialized time period and etc.

1.1.7 Responsive Design

Most of the people use mobile devices to access the internet. Therefore the all the websites must be responsive to all devices. The web pages of the EC system can access from the any devices such as tablets, smartphones and etc. without having any difficulty.

1.1.8 User Friendly Interfaces

The interfaces of the EC web based system are easy to use the users of it with the minimum IT knowledge.

1.1.9 Produce Reports

The reporting is one of the most important facility for the system. Therefore the EC system of the University of GreenIsland is available for generating reports such as statistic reports and exception reports.

1.2 Reason for developing EC system

The GreenIsalnd university has more than 10000 of student, more than 5 faculties all around the Sri Lanka. When the sessions of assessments for the students, most of students are submit them on time by handover. However someone is unable to submit them, because of that reason they have come to the university and present their Extenuating Circumstance with evidence to the university. This may be a very difficult task for both the student and university. Therefore it needs to be automated by using computer based system that is why GreenIsland University needs a web based EC system. By using it student can submit their assessment anywhere and anytime before the closure dates and when the event of late submission student can submit the Extenuating Circumstances claim through the system. Then the university officers can process them and get idea regarding rejecting or approving them through online. After approving or rejecting those claims the students are received email notification with the decision. And also the this EC system gives facility to the users to generate the statistic repots and exception report and many more; therefore the web based role based EC system is most suitable for the organization like the University of GreenIsland to manage the their processes regarding the Extenuating Circumstances.

2. Systems Requirements

2.1 Requirement Catalog

When considering the requirements that are used to developed within the system, can have different types of functional and non-functional requirements.

2.1.1 Functional Requirements

By using the MOSCOW prioritizing method we can prioritize all the functional requirements of the system as the Must have, should have, could have and won't have requirements.

2.1.1.1 Login process – Must have requirement

This is a web based and secure role based system therefor it can be accessed different types of users such as Administrator, student, EC manager and EC coordinator separately.

2.1.1.2 Create system users – Must have requirement

The system administrator can only create the login details for the system's user through the system. To process that the administrator has to make sure the users are absolutely the users of the system by evaluating their user IDs.

2.1.1.3 Submit EC claims with Evidence – Must have requirement

All the students can submit their EC claims with the evidence to the university by login to the system.

2.1.1.4 View and Edit the EC claims – Must have requirements

In this EC system it is most important to view and edit the EC claim to the students who are requested the claims.

2.1.1.5 Email Notification – Must have requirement

When a student make EC claim, the EC coordinator receive an email message with the description of their claim. After the EC coordinator can process them online and decide whether is it approved or rejected. When these condition students are also received email notification by indicating their EC claim is approved or rejected by the university.

2.1.1.6 Responsive design –Must have requirement

Most of the people (both the students and university staff) are prefer to access the internet always by using smartphone or tablets than using desktop computers. Therefore the web based system of the University of GreenIsland must be access by using mobile devices without having any difficulty.

2.1.1.7 User Friendly interfaces – Should have requirement

The web interfaces of the GreenIsland university are more simple and understandable to the users. Because of that reason the people who have less IT literacy can use the system easily.

2.1.1.8 Statistical Analysis – Should have requirement

The Administrator of the system has privilege to find the number of EC claims for the each faculty and each year. This can be used to determine the usability of the web site and to know how many students are joined with the university.

2.1.1.9 Produce Reports – Could have requirement

After the statistical analysis the system is able to generate both statistics and exception report that are using pdf document to analyze the further processes regarding the academy by the Administration of university.

2.1.1.10 Manage closure dates online – Won't have requirement

Administrator has privilege to create closure dates for each academic year and each assessment.

Same as the functional requirements the EC system has different types of non-functional requirements. They are described in following.

2.1.2 Non – Functional Requirements

2.1.2.1 Delete Users – Must have requirements

As same as the registering users to the system, the system administrator can also delete them by adding their user ID details.

2.1.2.2 Register EC Manager and EC Coordinator – Should have requirements

By using the administrator login, Administrator can register new EC Managers and EC Coordinators.

2.1.2.3 Animate the Images – Won't have requirements

| When accessing website. | the | web | site, | its | images | are | animate | d to | increase | the | attractiv | eness | of | the |
|-------------------------|-----|-----|-------|-----|--------|-----|---------|------|----------|-----|-----------|-------|----|-----|
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| 3. | Requi | rement | Sp | eci | ficat | tion |
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| | | | · I | | | |

3.1 High – level use case diagram for EC system

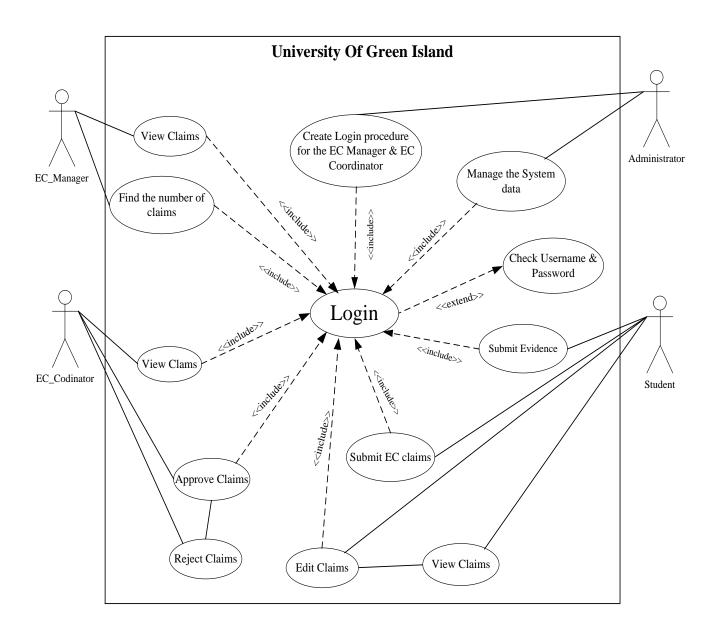


Figure 1: High - Level use case for the system

3.2 Use Case Description

3.2.1 Use case description for Login

| Use case name | Login | | |
|-----------------------------|---|--|--|
| Actor | Administrator, EC Manager, EC Coordinator, Student | | |
| Use case description | Users can login to the system by adding User ID, Password | | |
| | and User Type. | | |
| Normal cause of events | Add User ID, Password and User Type and click Login | | |
| | button | | |
| | All logins are available for user details that are added in | | |
| | to the user table. | | |
| Alternative cause of events | None. | | |
| Pre-condition | The all users have to register before the login to the | | |
| | system. | | |
| | User should include the User ID, Password and User | | |
| | type. | | |
| Post-condition | Access the user table that is in the database. | | |
| Assumption | Only the Administrator, EC Manager, EC Coordinator and | | |
| | Student can login to the system. | | |

Table 1: Use case Description for login

3.2.2 Use case description for Submit EC claim

| Use case name | Submit EC Claim |
|-----------------------------|--|
| Actor | Student |
| Use case description | Student can send EC claim to university by adding claim ID, |
| | upload time, upload date, subject, evidence, Student ID, |
| | Faculty ID, EC Coordinator ID. |
| Normal cause of events | Add claim ID, upload time, upload date, subject, |
| | evidence, Student ID, Faculty ID, EC Coordinator ID |
| | and click ADD button. |
| | All claim submissions are add to the ec_claim table that |
| | is in the greenisland database |
| Alternative cause of events | None. |
| Pre-condition | Students have to login to the system before submit the |
| | EC Claims. |
| Post-condition | EC claims details are added to the ec_claims table. |
| Assumption | Only the Students can submit the EC Claims, after the login. |

Table 2 : Use Case Description for Submit EC Claim

3.2.3 Use case Description for View Claims

| Use case name | View Claim |
|-----------------------------|---|
| Actor | EC Manager, EC Coordinator, Student |
| Use case description | Users have to add the EC claim ID and click the view |
| | button. |
| Normal cause of events | Add EC claim ID and click the view button. |
| | • View the claim details that are related to the claim ID |
| | that is in the ec_claims table. |
| Alternative cause of events | None. |
| Pre-condition | EC Manager, EC Coordinator and Student have to login to |
| | the system. |
| Post-condition | EC claims are viewed according to related EC claim ID. |
| Assumption | EC Manager, EC Coordinator, Student can only access the |
| | view claims. |

Table 3: Use case Description for View Claim

3.3 Low Level Use Case Diagrams

3.3.1 Low Level use case for Manage the System Data

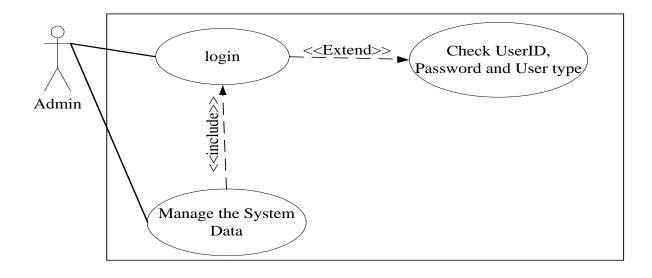


Figure 2: Low Level use case for the Manage the System data

3.3.1.1 Use case description for the manage the system data

| Use case name | Manage the System Data |
|-----------------------------|--|
| Actor | Administrator |
| Use case description | Administrator can manage the system data by login to the system. |
| Normal cause of events | Administrator have to login to the system and Manage the |
| | all the data |
| Alternative cause of events | None. |
| Pre-condition | To manage system data admin has to login to the system. |
| Post-condition | Access the database and process it. |
| Assumption | Only the administrator can manage the system data. |

Table 4: Use case Description for manage the system data

3.3.2 Low level use case for Edit Claims

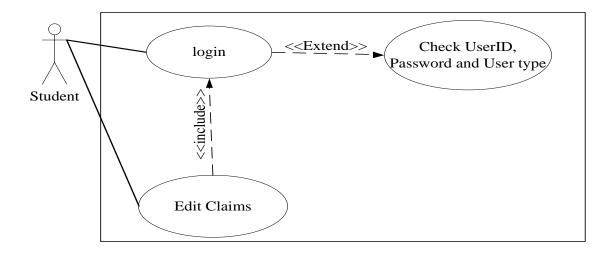


Figure 3: Use case Description for the Edit claims

${\bf 3.3.2.1}$ Use case description for the Edit claims

| Use case name | Edit claims | | |
|-----------------------------|--|--|--|
| Actor | Student | | |
| Use case description | First student has to login to the system and search them, | | |
| | after edit them and update. | | |
| Normal cause of events | Add Full Name, Address, Telephone, Doctor Name, | | |
| | Date, Time and Message and click Book Appointment | | |
| | All details are added in to the appointment table. | | |
| Alternative cause of events | None. | | |
| Pre-condition | • To Edit the claims the student has to login to the system. | | |
| | Administrator should include EC claim ID, and click the | | |
| | view button. | | |
| Post-condition | View the Claim details that are related to the Claim ID from | | |
| | the ec_claim table. | | |
| Assumption | Only the student can be edited the claims that they are | | |
| | uploaded. | | |

 $Table \ 5: Use \ case \ Description \ for \ the \ Edit \ claims$

4. System design

4.1 Entity Relationship Diagram

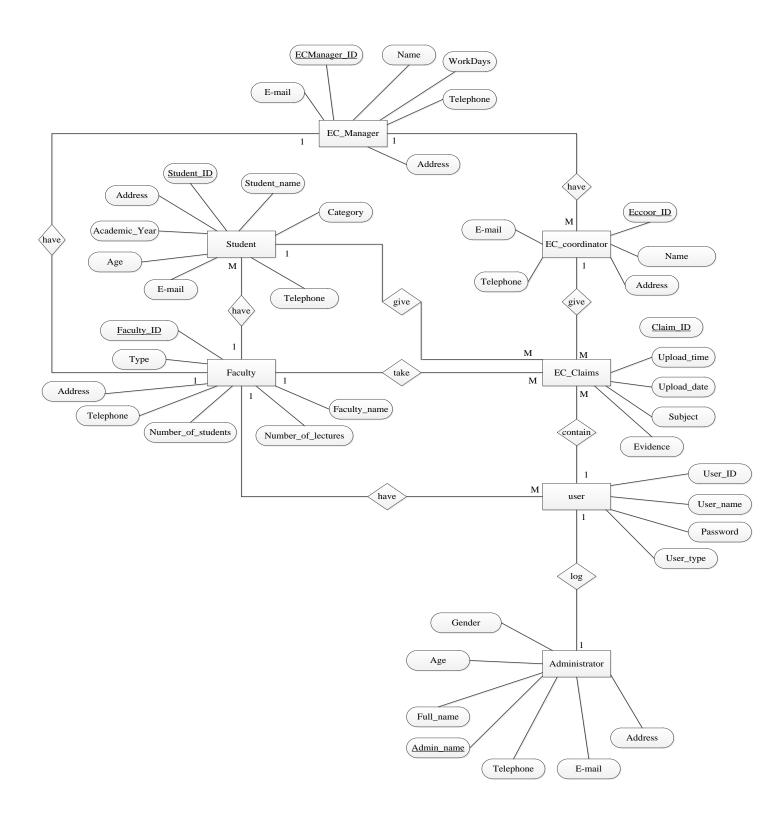


Figure 4: ERD for the System

4.2 Database Design of GreenIsland

Following I'll mention the design screenshots of the University of GreenIsland by using the MYSQL database.

4.2.1 Design of the User table

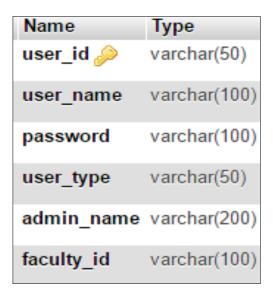


Figure 5 : Design of the User table

4.2.2 Design of the Administrator table

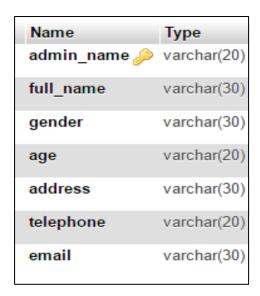


Figure 6: Design of the Administrator table

4.2.3 Design of the EC claims

| Name | Туре |
|------------------|--------------|
| claim_id 🔑 | varchar(20) |
| upload_time | varchar(20) |
| upload_date | varchar(20) |
| subject | varchar(20) |
| evidence | varchar(200) |
| student_id | varchar(20) |
| faculty_id | varchar(20) |
| eccoordinator_id | varchar(20) |

Figure 7 : Design of the EC claims

4.2.4 Design of the EC Coordinator

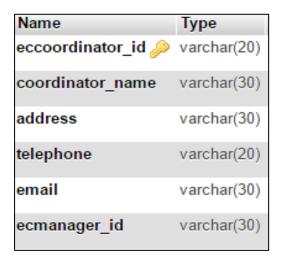


Figure 8 : Design of the EC Coordinator

4.2.5 Design of the Student

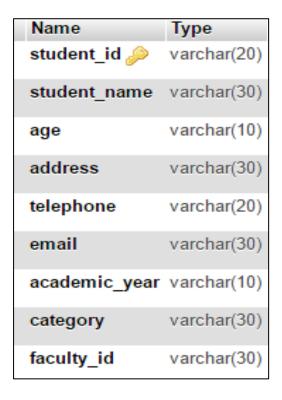


Figure 9 : Design of the Student

4.3 Database tables with sample test data

Following I'll mention database tables with the test data.

4.3.1 User table with test data

| user_id | user_name | password | user_type | admin_name | faculty_id |
|---------|---------------------|------------|---------------|----------------|------------|
| u001 | praneethmadhu | 123456 | Administrator | poo2992 | fac002 |
| u0011 | Hiruna | abc@123 | EC-Manager | | fac004 |
| u002 | hiru | 54321 | EC-Manager | hirunakaushika | fac002 |
| u0202 | Samith Madhusankha | eiiwojojwf | Student | | f002 |
| u111 | Iresh Piyatissa | 11111 | EC-Manager | | fac001 |
| u1111 | eranga Kumaranayaka | 1234567 | Student | emkumanayaka | fac001 |
| u9999 | Tharuka Nawarathne | 8329892 | Administrator | tharukanawa | f003 |

Figure 10: User Table with the Test data

4.3.2 Administrator table with data

| admin_name | full_name | gender | age | address | telephone | email |
|------------|--------------------|--------|-----|---------|------------|-------------------------------|
| U001 | Premod Mihiran | male | 23 | Matara | 0412255012 | premodmihiran@gmail.com |
| U002 | Kavinda Madushanka | male | 21 | Galle | 0785421369 | kavindamadushanka@yahoo.com |
| U003 | Nadeera Kumanayaka | male | 20 | Colombo | 0112255478 | nadeerak67@gmail.com |
| U004 | Niroshan Malinda | male | 19 | Colombo | 0785201423 | niroshan98@yahoo.com |
| U005 | Krishan Kumanayaka | male | 30 | Colombo | 0785241697 | krishan45@gmail.com |
| U006 | Shalina Dulshan | male | 22 | Galle | 0774012568 | shalina90@gmail.com |
| U007 | Kalana Shehan | male | 23 | Galle | 0915214897 | kalanashehan45@gmail.com |
| U008 | Isuru Preshanga | male | 24 | Colombo | 0112255478 | isurupresanga65@gmail.com |
| U009 | Nadeesh Premuditha | male | 25 | Galle | 0785241360 | nadeeshpremuditha45@gmail.com |
| U010 | Lasun Namal | male | 25 | Matara | 0775212045 | lasunnamal54@gmail.com |

Figure 11: Administrator table with data

4.3.3 EC Manager table with data

| ecmanager_id | name | workdays | address | telephone | email | faculty_id |
|--------------|---------------------|----------------------|---------|------------|----------------------|------------|
| EM01 | Namali Ganesha | Manday/Tuesday/Satur | Matara | 0715023415 | namail@gmail.com | f001 |
| EM02 | Hashini Fernando | Tuesday/Saturday/Sun | Colombo | 0412288045 | hashini65@gmail.com | f002 |
| EM03 | Banuka Perera | Tuesday/Wedesday/Thu | Galle | 0778241568 | banuka@gmail.com | f003 |
| EM04 | Lakmal Gihashan | Wenesday/Thuresday/F | Colombo | 0785236147 | lakmalgihashan@gmail | f004 |
| EM05 | Eranga Madushan | Friday/Saturday/Sund | Galle | 0912233058 | eranga@gmail.com | f005 |
| EM06 | Kithmi Widanagamage | Monday/Friday/Saturd | Matara | 0412255047 | kithmid@outlook.com | f004 |
| EM07 | Hasi Waidyarathna | Monday/Tuesday/Frida | Matara | 0412225068 | hasi78@gmail.com | f003 |
| EM08 | Janith Eroshan | Monday/Saturday/Sund | Colombo | 0112255478 | janithe@gmail.com | f002 |
| EM09 | Anjula Rajapaksha | Monday/Saturday/Sund | Galle | 0412225048 | anjularajapaksha@yah | f001 |
| EM10 | Sanka Binduhewa | Monday/Satuday/Sunda | Galle | 0912255478 | sankab@gmail.com | f002 |

Figure 12 : EC Manager table with Data

4.3.4 Student table with data

| student_id | student_name | age | address | telephone | email | academic_year | category | faculty_id |
|------------|--------------------------|-----|--------------|-------------|--------------------|---------------|------------------------|------------|
| S001 | Kamal Perera | 23 | Matara | 0412225047 | kamalp@gmail.com | 2016 | IT | f002 |
| S002 | Gayani Satharasingha | 22 | Galle | 0912233578 | gayani@yahoo.com | 2015 | Medical Science | f003 |
| S003 | Isurika Wijewardana | 25 | Matara | 0412228098 | isurika@gmail.com | 2017 | Buisness Management | f004 |
| S004 | Praneeth Kumarasingha | 23 | Galle | 0912225489 | praneeth@gmail.com | 2017 | Accounting | f002 |
| S005 | Tharindu Dilshan | 25 | Colombo | 0112255478 | tharindu@gmail.com | 2017 | Medical Science | f003 |
| S006 | Danidu Madawa | 26 | Colombo | 01122665012 | danidu87@gmail.com | 2016 | Accounting | f005 |
| S007 | Iresh Piyatissa | 23 | Ambalanthota | 0712541036 | ireshp@gmail.com | 2016 | IT | f002 |
| S008 | Hiruna Kawshika | 23 | Matara | 0412255047 | hiruna@gmail.com | 2017 | IT | f002 |
| S009 | Sarith Gamage | 25 | Colombo | 0778045128 | sarith56@gmail.com | 2016 | Buisness Management | f004 |
| S010 | Kasun Sadakalum | 28 | Galle | 0785522041 | kasuns@gmail.com | 2017 | Buisness Management | f004 |

Figure 13 : Student table with data

4.3.5 EC Coordinator table with data

| eccoordinator_id | coordinator_name | address | telephone | email | ecmanager_id |
|------------------|--------------------|---------|------------|------------------------------|--------------|
| CO101 | Janaka Silva | Colombo | 0112255047 | janaka@gmail.com | EM02 |
| CO102 | Harsha Perera | Galle | 0912255478 | harsha56@gmail.com | EM04 |
| CO103 | Kanchana Mendis | Galle | 0715042178 | kanchna54@gmail.com | EM03 |
| CO104 | Namali Rathnayaka | Matara | 0752014598 | namalirathnayaka34@gmail.com | EM02 |
| CO105 | Vishwa Nuwanga | Matara | 0412225098 | vishwa@gmail.com | EM01 |
| CO106 | Ranga Gamage | Galle | 0784512036 | ranga@gmail.com | EM04 |
| CO107 | Ishanka Jayasuriya | Colombo | 0774123589 | jayasuriya@gmail.com | EM02 |
| CO108 | Harin Silva | Galle | 0912254178 | harin32@gmail.com | EM02 |
| CO109 | Upul Mahanama | Galle | 0774125358 | umahanama@yahoo.com | EM01 |
| CO110 | Jayani Sumudini | Colombo | 0784215025 | jayanis@gmail.com | EM05 |

Figure 14: EC Coordinator table with data

4.4 Normalization

4.4.1 First Normalization

admin_name, full_name, gender, age, address, telephone, email, user_id, user_name, password, user_type, admin_name, student_id, student_name, age, address, telephone, email, academic_year, category, claim_id, upload_time, upload_date, subject, evidence, eccoordinator_id, coordinator_name, address, telephone, email, ecmanager_id, name, workdays, address, telephone, email.

4.4.2 Second Normalization

- administrator (<u>admin_name</u>, full_name, gender, age, address, telephone, email)
- user (<u>user_id</u>, user_name, password, user_type, admin_name, faculty_id)
- student (<u>student_id</u>, student_name, age, address, telephone, email, academic_year, category, faculty_id)
- ec_claim (<u>claim_id</u>, upload_time, upload_date, subject, evidence, student_id, faculty_id, eccoordinator_id)
- ec_coordinator(eccoordinator_id, coordinator_name, address, telephone, email, ecmanager_id)
- ec_manager_id, name, workdays, address, telephone, email, faculty_id)

4.4.2 Third Normalization

- administrator (<u>admin_name</u>, full_name, gender, age, address, telephone, email)
- user (<u>user_id</u>, user_name, password, user_type, admin_name, <u>faculty_id</u>)
- student (<u>student_id</u>, student_name, age, address, telephone, email, academic_year, category, <u>faculty_id</u>)
- ec_claim (<u>claim_id</u>, upload_time, upload_date, subject, evidence, <u>student_id</u>, <u>faculty_id</u>, <u>eccoordinator_id</u>)
- ec_coordinator(eccoordinator_id, coordinator_name, address, telephone, email, ecmanager_id)
- ec_manager (ecmanager_id, name, workdays, address, telephone, email, faculty_id)

5. System modeling

5.1 Class diagram

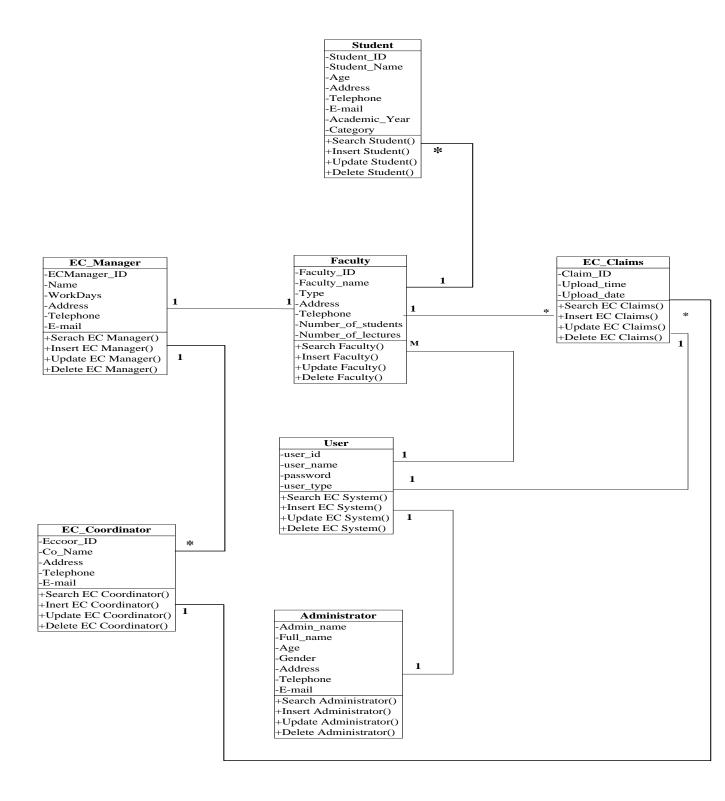


Figure 15: Class Diagram for the system

5.2 Activity Diagram for the system

5.2.1 Activity Diagram for user login

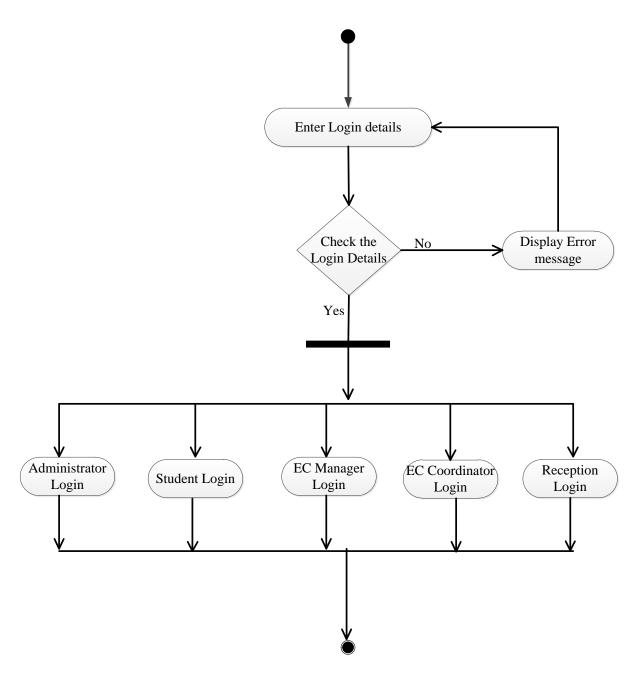


Figure 16: Activity Diagram for user login

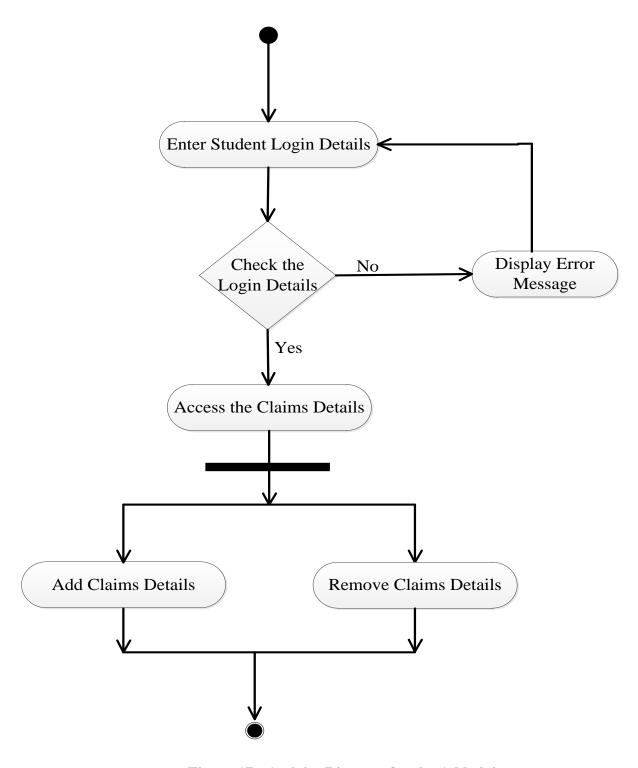


Figure 17 : Activity Diagram for the Add claims

5.2.3 Activity diagram for View claims

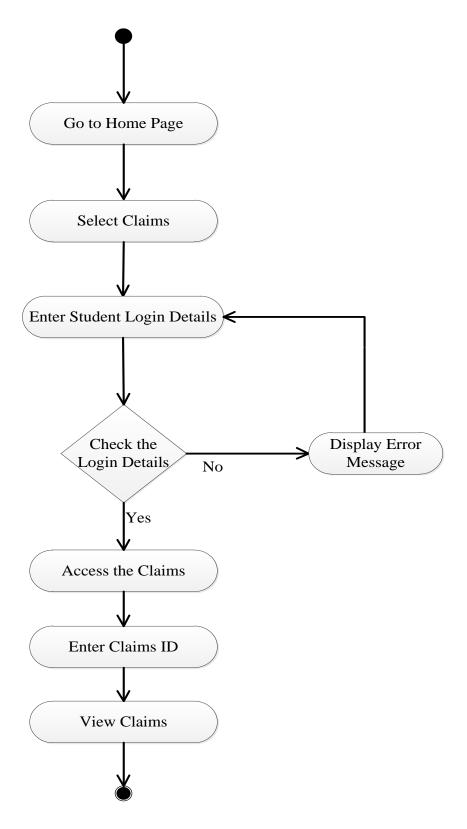


Figure 18: Activity Diagram for view claims

5.3 State chart diagrams for the system

5.3.1 State chart diagram for the User login

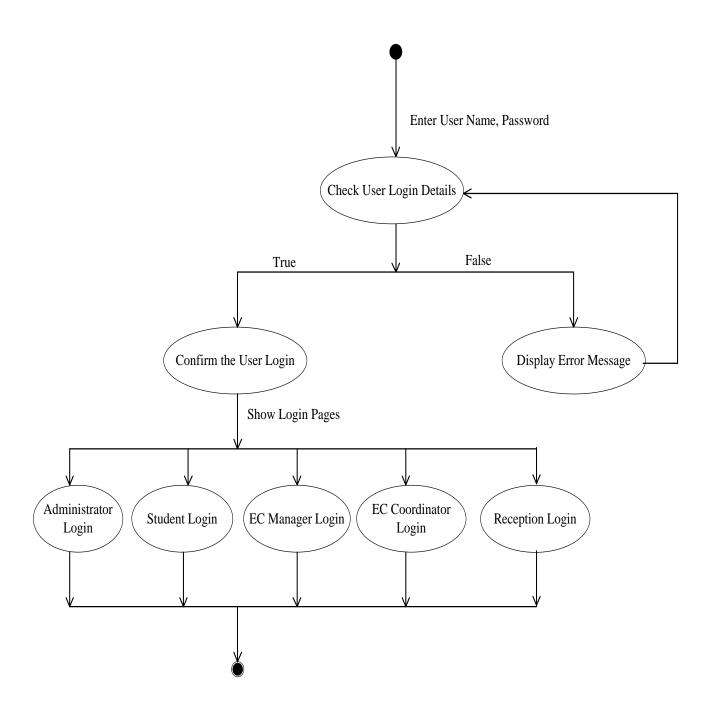


Figure 19: State chart for the User login

5.3.2 State chart diagram for add claims

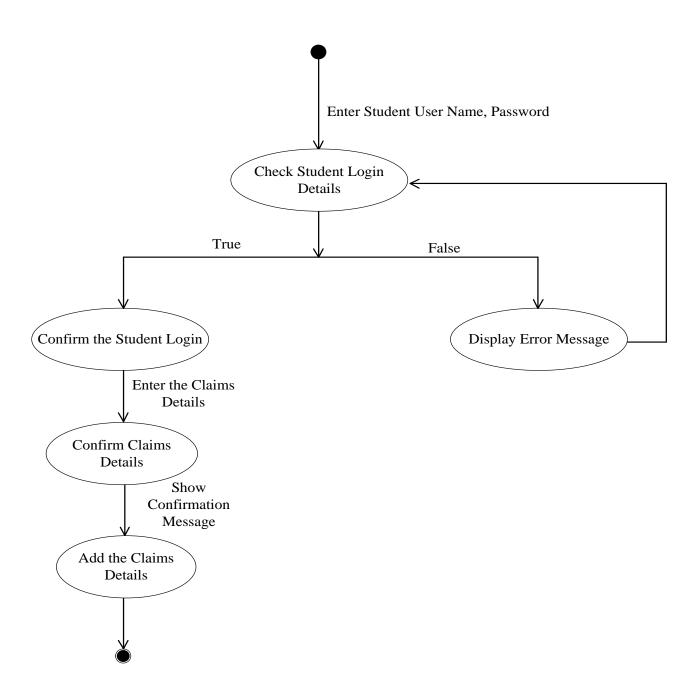


Figure 20: State chart diagram for add EC claims

5.3.3 State chart diagram for the view claims

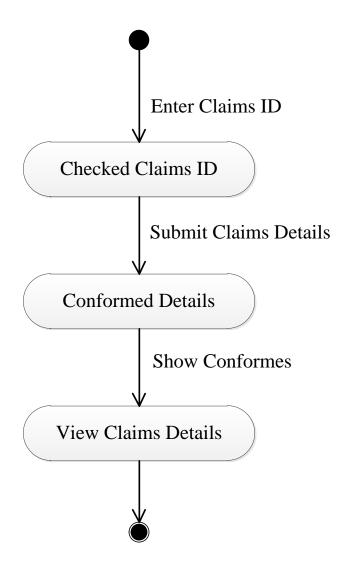


Figure 21: State chart diagram View claims

5.4 Collaboration diagrams

5.4.1 Collaboration diagram for user login

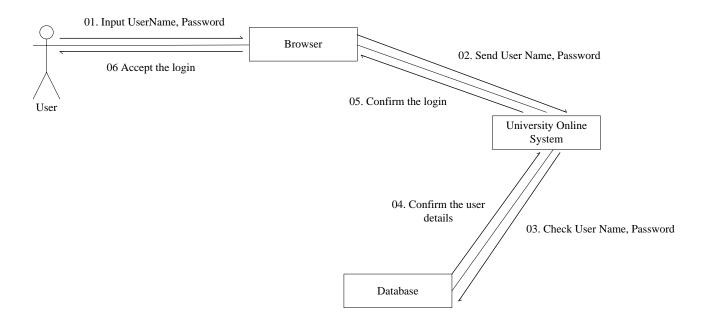


Figure 22: Collaboration Diagram for user login

5.4.2 Collaboration diagram for view claims

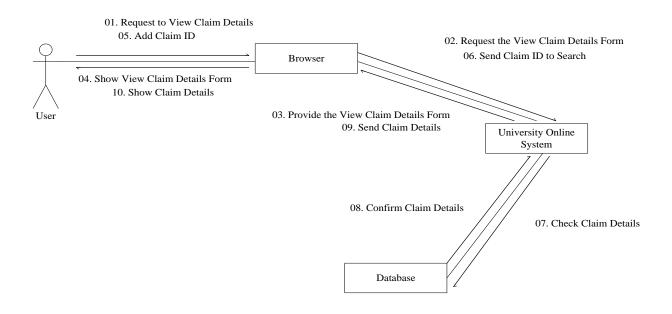


Figure 23: Collaboration diagram for view claims

5.5 Sequence diagrams for the system

5.5.1 Sequence diagrams for user login

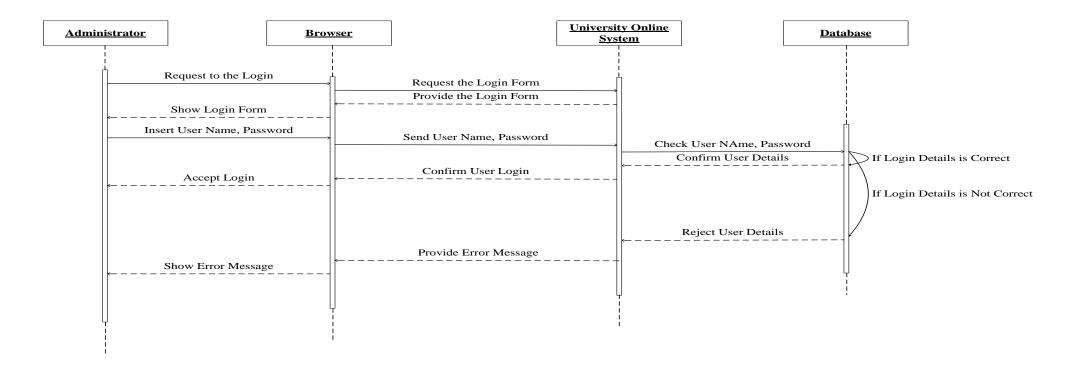


Figure 24 : Sequence diagram for User login

5.5.2 Sequence diagram for view claims

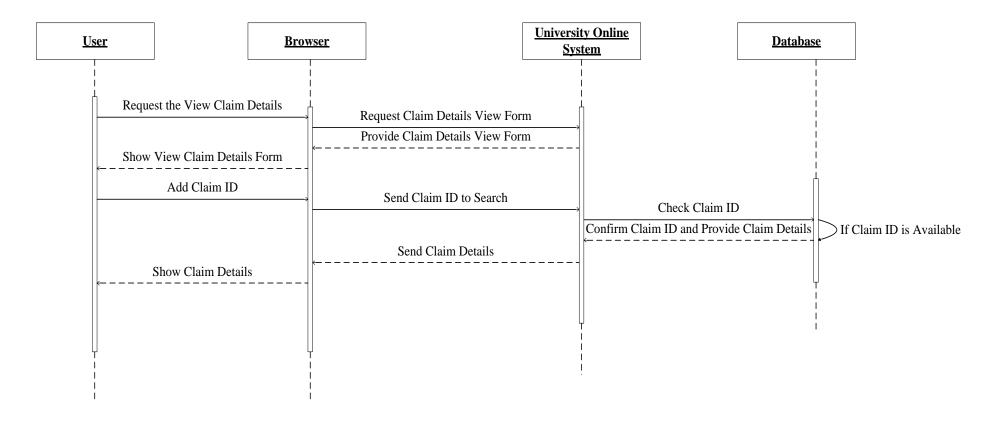


Figure 25 : Sequence diagram for view claim

5.6 Screen designs for the system

Following I have mentioned the different types of screen designs for the system.

5.6.1 Screen design for the home page

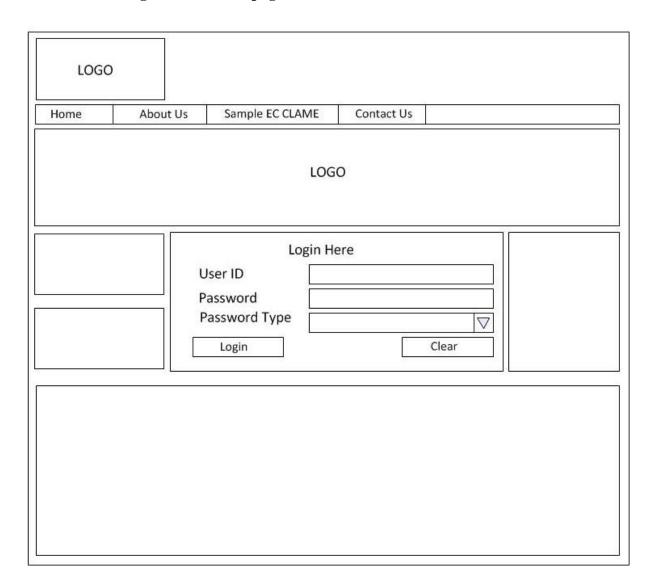


Figure 26: Screen design for the Home page

5.6.2 Screen design for the contact us form

| LOGO |) | | | | | | | | |
|------------|--|-----------------|------------|--|--|--|--|--|--|
| Home | About Us | Sample EC CLAME | Contact Us | | | | | | |
| | MAP | | | | | | | | |
| Write a Co | omment Full nan E-Mail Telepho Course Subject | | | | | | | | |
| | Se | nd | Clear | | | | | | |
| | | | | | | | | | |

Figure 27 : Screen design for the Contact us form

5.6.3 Screen design for EC Manager page

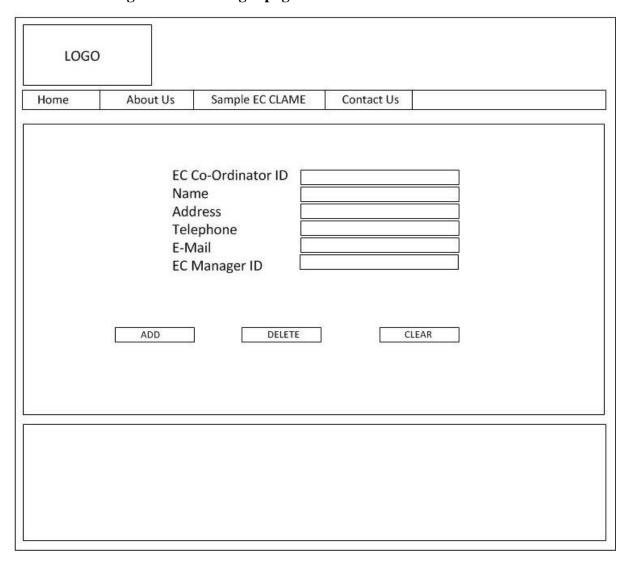


Figure 28 : Screen design for EC Manager Page

5.6.4 Screen design for EC claims page

| LOGO | | | |
|------|------------------|---|------------|
| Home | About Us | Sample EC CLAME | Contact Us |
| | U S E S | Claim ID Jpload Time Jpload Date Subject Evidence Student ID Faculty ID EC CO-OR ID Delete Clear | |
| | | | |
| | | | |

Figure 29 : Screen design for EC claims web page

5.7 Navigation structure of the project

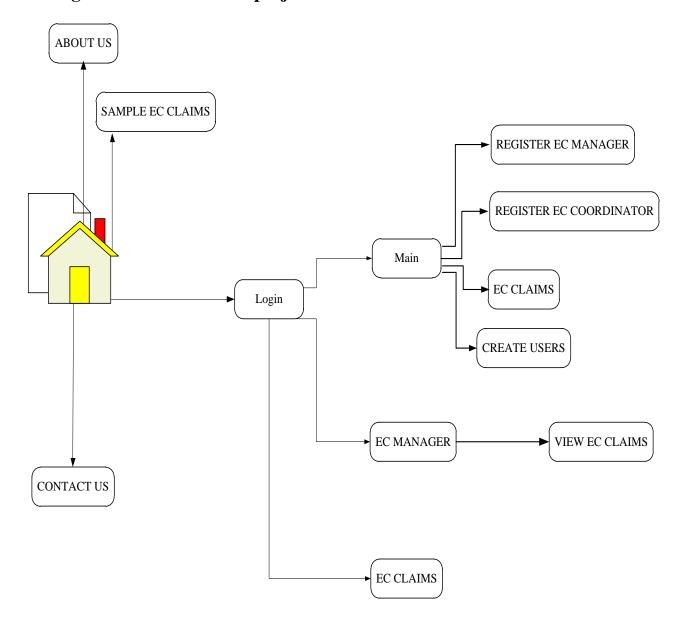


Figure 30: Navigation structure of the system

5.7.1 Navigation links for the system

5.7.1.1 Navigation link for Home page

| Title | University of GreenIsland –Home |
|------------|--|
| File Name | index.php |
| Local Link | http://localhost/greenisland/index.php |

Table 6: Navigation link for the Home page

5.7.1.2 Navigation link for CONTACT US page

| Title | University of GreenIsland –Contact us |
|------------|--|
| File Name | contact.php |
| Local Link | http://localhost/greenisland/contact.php |

Table 7: Navigation link for CONTACT US page

5.7.1.3 Navigation link for MAIN page

| Title | University of GreenIsland –Main |
|------------|---------------------------------------|
| File Name | main.php |
| Local Link | http://localhost/greenisland/main.php |

Table 8 : Navigation link for Main page

5.7.1.4 Navigation link for the EC claim page

| Title | University of GreenIsland –EC claim |
|------------|--|
| File Name | student.php |
| Local Link | http://localhost/greenisland/student.php |

Table 9: Navigation link for EC claim page

5.8 Screenshots of the University of GreenIsland web pages

5.8.1 Home page



Figure 31: The Home page

5.8.1.1 Coding of the home page

```
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>University of Green-Island</title>
</head>
<body id="top">
<div class="wrapper row1">
<div id="header" class="clear">
<div class="fl_left">
<h1><a href="index.php"><img src="images/demo/white.png" alt="University of Greenisland" width="220" height="125"/></a></h1>
```

```
</div>
 <!-- <div class="fl_right">
<div class="wrapper row2">
 <div class="rnd">
  <div id="topnav">
   ul>
   <div class="fl right">
  </div>
    cli class="active"><a href="index.php">Home</a>
    <a href="about.html">About Us</a>
    <a href="sample.html">Sample ec claims</a>
    <a href="contact.php">contact us</a>
                                               </div>
 </div>
</div>
<div class="wrapper">
 <div id="featured_slide" class="clear">
  <div class="overlay left"></div>
  <div id="featured_content">
   <div class="featured_box" id="fc1"><img src="images/demo/slider/b1.jpg" alt="" />
    <div class="floater">
     <h2>University of Green-Island</h2>
     A professional university that spread education and descipline
through the good students throughout the world.
     <a href="about.html">Continue Reading &raquo;</a>
    </div>
   </div>
   <div class="featured_box" id="fc2"><img src="images/demo/slider/b2.jpg" alt="" />
    <div class="floater">
     <h2>University of Green-Island</h2>
     A professional university that spread education and descipline
through the good students throughout the world.
     <a href="about.html">Continue Reading &raquo;</a>
    </div>
   </div>
   <div class="featured_box" id="fc3"><img src="images/demo/slider/b3.jpg" alt="" />
    <div class="floater">
    <h2>University of Green-Island</h2>
     A professional university that spread education and descipline
through the good students throughout the world.
```

```
<a href="pages/about.html">Continue Reading
»</a>
    </div>
   </div>
   <div class="featured_box" id="fc4"><img src="images/demo/slider/b4.jpg" alt="" />
    <div class="floater">
     <h2>University of Green-Island</h2>
     A professional university that spread education and descipline
through the good students throughout the world.
     <a href="pages/about.html">Continue Reading
»</a>
    </div>
   </div>
   <div class="featured_box" id="fc5"><img src="images/demo/slider/b6.jpg" alt="" />
    <div class="floater">
     <h2>University of Green-Island</h2>
     A professional university that spread education and descipline
through the good students throughout the world.
     <a href="pages/about.html">Continue Reading
»</a>
    </div>
   </div>
  </div>
  ul id="featured tabs">
   <a href="#fc1">All About The University</a>
   <a href="#fc2">Why You Should Study With Us</a>
   <a href="#fc3">Education And Student Experience</a>
   <a href="#fc4">Our Student Alumni</a>
   <a href="#fc5">GreenIsland University Facilities</a>
  <div class="overlay_right"></div>
 </div>
</div>
<div class="wrapper row3">
 <div class="rnd">
  <div id="container" class="clear">
   <div id="homepage" class="clear">
    <div id="left_column">
     <h2>&nbsp;</h2>
     <div class="imgholder"><a href="#"><img src="images/demo/slider/2801.jpg" alt=""</pre>
/></a></div>
     <h2>Current Students</h2>
```

```
<div class="imgholder"><a href="#"><img src="images/demo/slider/2802.jpg" alt=""</pre>
/></a></div>
      </div>
     <!-- Login coding start-->
     <script type = "text/javascript">
                      function validateform()
               {
                      var a = document.forms["loginform"]["uid"].value;
                      var b = document.forms["loginform"]["pass"].value;
                      var c = document.forms["loginform"]["usertype"].value;
                      if(a=="")
                       alert ("You Must Input the User ID");
                       return false;
                      }else
                      if(b=="")
                       alert ("You Must Input the Password");
                       return false;
                      }else
                             if(c=="")
                              alert ("You Must Select the User type");
                              return false;
                             if(b.length < 4) //i got a problem with this one i think
                               {
                                       alert("Password is longer than 4 characters");
                                      return false;
                               }
                      }
       </script>
<?php
                      if(isset($_POST['login']))
               {
                      ser = POST['uid'];
```

```
$pass = $_POST['pass'];
                    mysql_connect("localhost","root","");
      mysql_select_db("greenisland") or die ("You Have Error Occurred!");
$query_result = mysql_query("SELECT * FROM user WHERE user_id ='$user' AND
password ='$pass' ");
$checkusertype = mysql_fetch_array($query_result);
      $num_of_rows = mysql_num_rows($query_result);
                    if(\$num of rows == 1)
      if($checkusertype['user_type']=='Administrator')
              echo '<META HTTP-EQUIV ="Refresh" Content="0; URL=main.php">';
      elseif($checkusertype['user_type']=='EC-Manager')
      echo '<META HTTP-EQUIV="Refresh" Content="0; URL=ecmanager.php">';
      elseif($checkusertype['user_type']=='EC-Coordinator')
      echo '<META HTTP-EQUIV="Refresh" Content="0; URL=eccoordinator.php">';
      elseif($checkusertype['user_type']=='Student')
echo '<META HTTP-EQUIV="Refresh" Content="0; URL=student.php">';
              }
else
echo 'User details are Incorrect please Correct Them';
mysql_close();
      ?>
     <!-- Login coding end-->
    <div id="latestnews">
     <h2>Users Login</h2>
     \langle ul \rangle
style="background:#7FDFFF;height:400;" class="animated zoomIn">
```

```
<div id="respond"><br/>
      align="center">
       Login Here!
       <br/>
     <form name="loginform" method="post" action="<?php $_PHP_SELF ?>">
 p;<label><small style="font-size:16px;font-weight:bold; color:#000000;">User
ID</small></label><input style="width:200px;" type="text" name="uid" value="" size="28"
/>
      >
p;<label><small style="font-size:16px;color:#000000;font-weight:bold;">Password
</ri></label><input style="width:200px;" type="password" name="pass" value=""</li>
size="28"/>
      >
p;<label><small style="font-size:16px;color:#000000;font-weight:bold;">User Type
</small></label><select name="usertype"
style="width:206px"><option></option><option>Administrator</option><option>EC-
Manager</option><option>EC-Coordinator</option><option>Student</option></select>
      <br/>
      >
<input style="font-size:15px; font-weight:bold;color:#000000;font-family:Verdana, Geneva,</pre>
sans-serif; background:#FF0000;" name="login" type="submit" onclick="validateform()"
value="Login" />
       <input style="font-size:15px; font-weight:bold;color:#000000;font-family:Verdana,</pre>
Geneva, sans-serif;background:#FF0000;" name="reset" type="reset" tabindex="5"
value="Clear" />
      </form>
    </div>
     </div>
    <div id="right_column">
     <div class="holder">
      <h2>&nbsp;</h2>
      <a href="#"><img src="images/demo/slider/ppppp.jpg" alt="" /></a> </div>
    </div>
       </div>
```

```
</div>
 </div>
</div>
<div class="wrapper row4">
 <div class="rnd">
  <div id="footer" class="clear">
   <div class="fl_left clear">
    <div class="fl_left center"><script</pre>
src='https://maps.googleapis.com/maps/api/js?v=3.exp&key=AIzaSyC4MmXcqegli6kByq-
xGF2TWNkf6kU3ysQ'></script><div
style='overflow:hidden;height:200px;width:200px;'><div id='gmap canvas'
style='height:200px;width:200px;'></div><style>#gmap_canvas img{max-
width:none!important;background:none!important}</style></div> <a
href='https://embedmaps.net'>add google map to your website</a> <script
type='text/javascript' src='https://embedmaps.com/google-maps-
authorization/script.js?id=1c6798250bdf8777b7c9750e538c7bf83a26421f'></script><script
type='text/javascript'>function init_map(){var myOptions = {zoom:12,center:new
google.maps.LatLng(6.886473,79.8562825999999),mapTypeId:
google.maps.MapTypeId.ROADMAP};map = new
google.maps.Map(document.getElementById('gmap_canvas'), myOptions);marker = new
google.maps.Marker({map: map,position: new
google.maps.LatLng(6.886473,79.85628259999999)});infowindow = new
google.maps.InfoWindow({content:'<strong>University Of
GreenIsland</strong><br/>br>GreenIsland Avenue<br/>br> Colombo
04<br/>br>'});google.maps.event.addListener(marker, 'click',
function(){infowindow.open(map,marker);});infowindow.open(map,marker);}google.maps.e
vent.addDomListener(window, 'load', init_map);</script><br/>br />
     </div>
    <address>
    University of <b> Green-Island</b>,<br/>>
    Green-Island avenue, <br/>
    Colombo.<br/>
    Sri Lanka.<br/>
                        <br/>
    Tel: +94 112 29 111<br/>
    Email: <a href="#">greeniscontact@gmail.com</a>
    </address>
   </div>
   <div class="fl_right">
    <div id="social" class="clear">
      Stay Up to Date With Whats Happening
     \langle ul \rangle
       <a style="background-position:0 0;"</li>
href="https://twitter.com/login?lang=en">Twitter</a>
```

```
<a style="background-position:-72px 0;"</li>
href="https://www.linkedin.com/company/login">LinkedIn</a>
      <a style="background-position:-142px 0;" href="https://en-
gb.facebook.com/login/">Facebook</a>
      <a style="background-position:-282px 0;"</li>
href="https://www.rss.com/login">RSS</a>
    </div>
   </div>
  </div>
 </div>
</div><div class="wrapper">
 <div id="copyright" class="clear">
  Copyright © 2017 - All Rights Reserved - <a</pre>
href="#">GreenIsland</a>
  Developed by <a href="google.com">IDM</a>
</div></div></body></html>
```

5.8.2 Main page

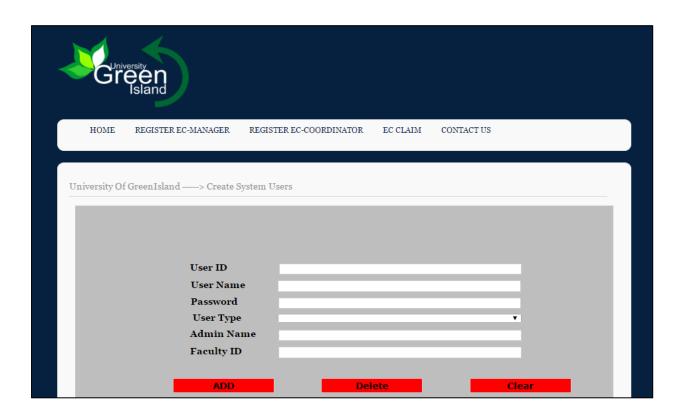


Figure 32: The Main page

5.8.2.1 Coding of the Main page

```
<html><body id="top">
<div class="wrapper row1">
 <div id="header" class="clear">
  <div class="fl left">
  <h1><a href="index.php"><img src="images/demo/white.png" alt="University of
Greenisland" width="220" height="125"/></a></h1>
   </div>
   </div>
</div>
<div class="wrapper row2">
 <div class="rnd">
  <div id="topnav">
   ul>
   <div class="fl_right">
   </div>
<a href="index.php">Home</a>
    <a href="ecmanagerreg.php">Register EC-Manager</a>
    <a href="eccoorreg.php">Register EC-Coordinator</a>
    <a href="student.php">EC Claim</a>
    <a href="contact.php">contact</a>
</div>
 </div>
</div>
<div class="wrapper row3">
 <div class="rnd">
  <div id="container" class="clear">
   <div id="content1">
    <h1>University Of GreenIsland ----> Create System Users</h1>
<script type = "text/javascript">
      function validateform()
      var a = document.forms["contactform"]["uid"].value;
      var b = document.forms["contactform"]["uname"].value;
      var c = document.forms["contactform"]["pass"].value;
      var d = document.forms["contactform"]["utype"].value;
      var e = document.forms["contactform"]["aname"].value;
      var f = document.forms["contactform"]["fid"].value;
      if(a=="")
      {
```

```
return false:
       }else
       if(a.length <2)
              alert ("The User ID must be longer than 2 characters");
               }else
       if(b=="")
        alert ("User Name must be input");
        return false;
       }else
       if(c=="")
        alert ("The Password must be input");
       return false;
       }else
              if(d=="")
               alert ("User Type must be input");
               return false;
               }else
              if(e=="")
                      alert ("You must insert the Admin Name");
                      }else
                      if(f=="")
                              alert ("You must insert the Faculty ID");
                              }else
                              var q = document.forms["contactform"]["uname"].value;
                              var numericExpression = /^[0-9]+$/;
                              if(q.match(numericExpression))
                      alert ("The User Name field accept only the letters");
                                             return false;
                                     }else{return true;}
                      }
         </script>
<?PHP
                                     if(isset($_POST['add']))
```

alert ("User ID must be input");

```
$uid=$_POST['uid'];
                                     $name =$_POST['uname'];
                                     pass = POST['pass'];
                                     $type =$_POST['utype'];
                                     $aname =$_POST['aname'];
                                     $fid=$_POST['fid'];
                             $con = mysql_connect('localhost','root',");
                             if (!$con)
                             {echo "Connection failed";}
              $db = mysql_select_db("greenisland") or die ("Database selection failed");
                             if (!$db)
                             {
                                     echo 'Database selection failed';
$insert = mysql_query("insert into user values('$uid', '$name', '$pass', '$type', '$aname', '$fid')"
                      if(!$insert)
                             echo "Data Insertion Failed";
                             else
                        echo 'Data Successfuly Inserted';
                             mysql_close($con);
                             if(isset($_POST['delete']))
                             $search=$_POST['uid'];
                             $con=mysql_connect('localhost','root',");
                                    if (!$con)
                             echo "Connection failed";
                             $db = mysql_select_db("greenisland");
                             if (!$db)
                             {echo 'Database selection failed';}
              $delete=mysql_query("DELETE FROM user WHERE user_id='$search'");
                             if(!$delete)
                             {
                             echo 'Data Delete failed';
                             {echo 'Doctor successfully Deleted';
```

```
}
                           mysql close($con);
                           }?>
        <div class="grid 81">
      <div id="respond" style="background:#BEBEBE;height:400;" align="center"><br/>br />
      <div class="booking_form">
     <form name="contactform" method="post" action="<?php $_PHP_SELF ?>">
>
<label><small style="font-size:16px;font-weight:bold; color:#000000;">User
ID</small></label><input style="width:400px;" type="text" name="uid" value="" size="50"
/> <label><small style="font-size:16px;color:#000000;font-weight:bold;">User
Name </small></label><input style="width:400px;" type="text" name="uname" value=""
size="28" /> <label><small style="font-size:16px;color:#000000;font-
weight:bold;">Password </small></label><input style="width:400px;" type="password"
name="pass" value="" size="28" />
 <label><small style="font-size:16px;color:#000000;font-weight:bold;">User Type
</small></label><select name="utype"
style="width:408px;"><option></option><option>Administrator</option><option>EC-
Manager</option><option>EC-Coordinator</option><option>Student</option></select>
      <label><small style="font-size:16px;color:#000000;font-
weight:bold;">Admin Name </small></label><input style="width:400px;" type="text"
name="aname" value="" size="28" />
>
<label><small style="font-size:16px;color:#000000;font-weight:bold;">Faculty ID
</small></label><input style="width:400px;" type="text" name="fid" value="" size="28" />
 <br /> 
<input style="font-size:15px; font-weight:bold;color:#000000;font-family:Verdana, Geneva,</p>
sans-serif; background:#FF0000;" name="add" type="submit" onclick="validateform()"
value="ADD" />
        <input style="font-size:15px; font-weight:bold;color:#000000;font-family:Verdana,</pre>
Geneva, sans-serif;background:#FF0000;" name="delete" type="submit" value="Delete" />
<input style="font-size:15px; font-weight:bold;color:#000000;font-family:Verdana, Geneva,</pre>
sans-serif;background:#FF0000;" name="reset" type="reset" value="Clear" />
      <br/>
      </form>
     <?php
        if (empty($uid)) {
die('You forgot to enter your User ID');
}
if (empty($name)) {
die('You forgot to enter User Name!');
break;
```

```
}
if (empty($type)) {
die('You forgot to choose a User Type!');
                      ?>
    </div></div>
    </div>
   </div>
  </div>
 </div>
</div>
<div class="wrapper row4">
 <div class="rnd">
  <div id="footer" class="clear">
   <div class="fl left clear">
    <div class="fl_left center"><script</pre>
src='https://maps.googleapis.com/maps/api/js?v=3.exp&key=AIzaSyC4MmXcqegli6kByq-
xGF2TWNkf6kU3ysQ'></script><div
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style='height:200px;width:200px;'></div><style>#gmap canvas img{max-
width:none!important;background:none!important}</style></div> <a
href='https://embedmaps.net'>add google map to your website</a> <script
type='text/javascript' src='https://embedmaps.com/google-maps-
authorization/script.js?id=1c6798250bdf8777b7c9750e538c7bf83a26421f'></script><script
type='text/javascript'>function init_map(){var myOptions = {zoom:12,center:new
google.maps.LatLng(6.886473,79.8562825999999),mapTypeId:
google.maps.MapTypeId.ROADMAP};map = new
google.maps.Map(document.getElementById('gmap_canvas'), myOptions);marker = new
google.maps.Marker({map: map,position: new
google.maps.LatLng(6.886473,79.85628259999999)});infowindow = new
google.maps.InfoWindow({content:'<strong>University Of
GreenIsland</strong><br/>br>GreenIsland Avenue<br/>br> Colombo
04<br/>br>'});google.maps.event.addListener(marker, 'click',
function(){infowindow.open(map,marker);});infowindow.open(map,marker);}google.maps.e
vent.addDomListener(window, 'load', init_map);</script><br/>br />
     </div>
    <address>
    University of <b> Green-Island</b>,<br/>>
    Green-Island avenue, <br/>
<br/>
>
    Colombo.<br/>
    Sri Lanka.<br/>
    <br/>
    Tel: +94 112 289 111<br/>
```

```
Email: <a href="#">greeniscontact@gmail.com</a>
    </address>
   </div>
   <div class="fl_right">
    <div id="social" class="clear">
     Stay Up to Date With Whats Happening
      <a style="background-position:0 0;"</li>
href="https://twitter.com/login?lang=en">Twitter</a>
      <a style="background-position:-72px 0;"
href="https://www.linkedin.com/company/login">LinkedIn</a>
      <a style="background-position:-142px 0;" href="https://en-
gb.facebook.com/login/">Facebook</a>
      <a style="background-position:-282px 0;"</a>
href="https://www.rss.com/login">RSS</a>
     </div>
   </div>
  </div>
 </div>
</div>
<div class="wrapper">
 <div id="copyright" class="clear">
  Copyright © 2017 - All Rights Reserved - <a</pre>
href="#">GreenIsland</a>
  Developed by <a href="google.com">IDM</a>
</div></div></body></html>
```

6. Testing of the system

6.1 Test case for the Login in process for student and staff

| Test | What is being tested process | How | Test Data | Expected Result | |
|------|------------------------------|--|-----------|--|--|
| 1.1 | Login for student | Entered correct user name, password, user type | Data 1 | Login in to the system | |
| 1.2 | Login process for student | Entered wrong user name & password | Data 2 | Show error message. Enter correct user name & password | |
| 1.3 | Login process Admin | Entered correct user name & password | Data 3 | Login in to the system | |
| 1.4 | Login process Admin | Entered wrong user name & password | Data 4 | Show error message. Enter correct user name & password | |
| 1.5 | Login process | Entered correct user name & wrong password | Data 5 | Show error message. Enter correct password | |
| 1.6 | Login process | Entered wrong user name & correct password | Data 6 | Show error message. Enter correct user name | |

Table 10: Test case for login

6.2 Test case for Submit EC claim

| Test | What is being tested process | How | Test Data | Expected Result |
|------|------------------------------|---|-----------|--|
| 2.1 | Submit a new claim form | Select correct file format | Data 7 | Display successful massage |
| 2.2 | Submit a new claim form | Wrong file format | Data 8 | Display error massage file format is wrong |
| 2.3 | Submit a new claim form | Exceeded maximum file size with new details | Data 9 | Error saying file is too large |
| 2.4 | Submit a new claim form | File is below maximum file size | Data 10 | Display massage of successful |

Table 11: Test case for Submit EC claims

6.3 Test case for Update Student details by admin

| Test | What is being tested process | How | Test Data | Expected Result | |
|------|------------------------------|---|--------------------|--|--|
| 3.1 | Update the student details | Update the existing details | Data 11 | Display massage of update successful | |
| 3.2 | Add an existing student | Same details add an existing student | Registered student | Display massage existing student name | |
| 3.3 | Update the profile picture | Uploaded the new photo to profile picture | New photo | Display massage upload successfully and new image is shown | |

Table 12: Test case for update student details

6.4 Test case for Report Generations

| Test | What is being tested process | How | Test Data | Expected Result |
|------|--|--|--------------|---|
| 4.1 | List of non- commented claims View the non- commented claims | | Data 12 | Non commented claims are the shown |
| 4.2 | List of non- commented claims after 14 days | View the non- commented claims over 14 days | Data 12 | Past 14 days no commented claims are shown |
| 4.3 | Report of number of involvement for each academic year | Click on the list of involvement | Data 12 | List of involvement faculty wise other |
| 4.4 | report involvement faculty | Click on the view button | Data 13 | The number of involvements for the massaging is shown |

Table 13: Test case for Report generations

6.5 Test log of above processes

6.5.1 Test log of login process for student and staff

| Test | What is being tested process | How | Test Data | Expected Result | Date | Actual result | Action taken |
|------|---|---|--------------|---|------------------------|---------------|-----------------|
| 1.1 | Login process for student | Entered correct user name & password | Data 1 | Login in to the system | 02 February 2017 | Ok | None |
| 1.2 | Login process for Admin | Entered wrong Admin user name & password | Data 2 | Show error message. User details are incorrect please correct them. | 02 February 2017 | Ok | None |
| 1.3 | Login process for EC Manager | Entered correct user name & password | Data 3 | Login in to the system | 02 February 2017 | Ok | None |
| 1.4 | Login process for EC Coordinator | Entered wrong user name & password | Data 4 | Show error message. Enter correct user name & password | 02 February 2017 | Ok | None |
| 1.5 | Login process for Student | Entered correct wrong user name & password | Data 5 | Show error message. Student login details are Incorrect please Correct Them | 02 February 2017 | Ok | None |

Table 14: Test log for login process

6.5.2 Test log for Submit EC claims

| Test | What is being tested process | How | Test Data | Expected Result | Date | Actual result | Action taken |
|------|------------------------------|--|--------------|---|------------------------|---------------|--------------|
| 2.1 | Submit new claims | Correct information inputs to all fields | Data 6 | Display massage of successfully | 06 February 2017 | Ok | None |
| 2.2 | Submit new claims | Wrong file format | Data 7 | Display error massage wrong file format | 06 February 2017 | Ok | None |
| 2.3 | Submit new claims | Over the maximum file size | Data 8 | Display error massage file is too large | 06 February 2017 | Ok | None |
| 2.4 | Submit new claims | Closure date is passed | Data 9 | Display error massage cannot upload | 06 February 2017 | Ok | None |
| 2.5 | Submit new claims | Re upload after modification | Data 10 | Successful | 06 February 2017 | Ok | None |

Table 15: Test log for submit claim

6.5.3 Test log for Upload student details by Admin

| Test | What is being tested process | How | Test Data | Expected Result | Date | Actual result | Action taken | |
|------|------------------------------|---|--------------------------|---|------------------------|------------------|-----------------|--|
| 3.1 | Upload the student details | Changing the existing data | Data 11 | Display massage upload is successful | 07 February 2017 | Ok | None | |
| 3.2 | Add an existing student | Same details add an existing student | Existing student details | Display massage student already exists | 07 February 2017 | Ok | None | |
| 3.3 | Upload the profile picture | Upload the new photo | New photo | Display successful and new photo added | 07 February 2017 | Ok | None | |

Table 16: Test log for upload student

6.6 Test screenshots for the Test Cases

6.6.1 Test screenshots for the test number 1.2



Figure 33: Administrator Login with wrong

6.6.1.1 Error Message

User details are Incorrect please Correct Them

Figure 34: The error message for Wrong EC manager login

6.6.2 Test Screenshot for Test Number 1.5



Figure 35 : Student login with wrong user details

6.6.2.1 Error Message for test number

Student login details are Incorrect please Correct Them

Figure 36: Error Message for Test number

6.7 Errors and Debugging

In this section, I have notice the different types of errors and solutions that are proceed during the developing the web based assignment.

1. **Wrong Parameter** - When working with the php coding I wrote the mysql_connect parameters wrong, because of that error I have faced difficulties with showing the interface regularly. The error code looks like the following.

The above mentioned error I have solved by using the die function of the php code. When using the die function we can debug the system without terminating it.

2. **Syntax Error** - I have also faced the different types of syntax errors such as missed the semicolon at the end of the statement. Because of that type of error the website is not displayed on the web browser. The above type of error can be displayed as the following.

3. **Fatal Error** – when working with the php I have experienced this type of error, because of the calling the undefined function when submitting the form. We have generated this error because of the, php code like the following.

7. Minutes of the Meeting

7.1 Meeting 1

Date & Time: - 17th February 2017

Members Name:-

- 1. Praneeth Kumarasinghe
- 2. Samith Batagoda
- 3. Praneeth Gamage
- 4. Hiruna Kaushika
- 5. Ranmuthu Kalpani
- 6. Supun Dilini

The group leader was Praneeth Kumarasinghe

Proposed by Praneeth Gamage

Major things concerned:-

All the requirements were pointed down by the team members during our first scrum meeting. Those requirements were prioritized according to the MOSCOW prioritization by the Mr.Praneeth Kumarasinghe. Feasibly studies for the project were carried out by the rest of the members.

Task for the team members to complete until the next sprint meeting.

- Mr hiruna kaushika make grantt chart for the entire project containing time frames for each activity.
- Mr praneeth gamage do a research on a currently existing similar system and analyze its features
- Mr Praneeth Kumarasinghe Draw use case diagram to cover the major functionality by identifying the scope of the system
- MS Ranmuthu Kalpani Prepare requirements catalogue by identifying functional and nonfunctional requirements of the system after analyzing system for any additional requirements

7.2 Meeting 2

Date & Time: - 24th February 2017

Members Name:-

- 1. Praneeth Kumarasinghe
- 2. Samith Batagoda
- 3. Praneeth Gamage
- 4. Hiruna Kaushika
- 5. Ranmuthu Kalpani
- 6. Supun Dilini

Major things concerned:-

Members planned on how to build the system in order to meet the prioritized requirements during the second meeting. Some new features found by MS Supun Dilini which are favorable for implementing in the new system were included in the requirement catalogue by Mr Samith Batagoda. The designs of the system were demonstrated with some drawn wireframes by Mr Hiruna Kaushika.

- Task for the team members to complete until the next sprint meeting:-
- Mr Praneeth Gamage Draw some technical diagrams like activity diagram and state charts to support the design of the system and document all the collected details.
- MS Ranmuthu Kalpani Implement a design plan for the system using the ideas gathered by analyzing a similar system.
- MS Supun Dilini Write primary and secondary scenarios for each use case and edit the use case diagram in order with the final set of requirements
- Mr. Praneeth Kumarasinghe Identify main entities and their relationships in the system and draw the ER diagram for that.
- Mr Praneeth Gamage Draw some more UML diagrams for the system like class and sequence diagrams.

7.3 Meeting 3

Date & Time: - 04th March 2017

Members Name:-

- 1. Praneeth Kumarasinghe
- 2. Samith Batagoda
- 3. Praneeth Gamage
- 4. Hiruna Kaushika
- 5. Ranmuthu Kalpani
- 6. Supun Dilini

Task for the team members to complete until the next sprint meeting:-

- Mr.Samith Batagoda Putting all the collected diagrams in the group archive
- Mr. Hiruna Kaushika Start designing the user interface of the system aiding the wireframes drawn by him
- Ms Ranmuthu Kalpani and Ms Supun Dilini Prepare a test plan to test the system.

7.4 Meeting 4

Date & Time: - 11th March 2017

Members Name:-

- 1. Praneeth Kumarasinghe
- 2. Samith Batagoda
- 3. Praneeth Gamage
- 4. Hiruna Kaushika
- 5. Ranmuthu Kalpani
- 6. Supun Dilini

Task for the team members to complete until the next sprint meeting:-

In the 4th meeting, members were assumed their feedback and plans on that and added a new requirement for the system.

Mr Hiruna Kaushika Complete the design of the system and develop a prototype to depict

the major functionality of the system.

• Mr. Praneeth Kumarasinghe Carry on the development of the system including feedback

of the team members.

• MS Supun Dilini Checked the compatibility of the system on many devices for example

mobiles, tablets and desktops suggesting developments.

• MS Ranmuthu Kalpani is writing the test cases to test the functionalities developing.

7.5 Meeting 5

Date & Time: - 18th March 2017

Members Name:-

1. Praneeth Kumarasinghe

2. Samith Batagoda

3. Praneeth Gamage

4. Hiruna Kaushika

5. Ranmuthu Kalpani

6. Supun Dilini

Task for the team members to complete until the next sprint meeting:-

Through this meeting team members mostly focused on the development process and

completed the design of the system.

• According to the assumed task of team members MS Supun Dilini prepare the scrum

meeting minutes

• Mr Praneeth Kumarasinghe Continue the system development

• MS Ranmuthu Kalpani Carry on testing and create test cases for the residual requirements

to develop

• Mr Hiruna Kaushika create some diagrams which are main for the development

7.6 Meeting 6

Date & Time: - 25th March 2017

Members Name:-

- 1. Praneeth Kumarasinghe
- 2. Samith Batagoda
- 3. Praneeth Gamage
- 4. Hiruna Kaushika
- 5. Ranmuthu Kalpani
- 6. Supun Dilini

Task for the team members to complete until the next sprint meeting:-

In this our final meeting we were in final step of the system development. In here;

- MR Hiruna Kaushika developed process and updated the group repository.
- Mr praneeth Gamage Implement more authentication guidelines to continue the accuracy of the system.
- Mr Samith Batagoda Evaluate the system and provided some ideas on in what way to increase the value of the system.
- Ms Ranmuthu Kalpani Carry out cross browser compatibility for the system and giving bug report.

7.7 Burn Down chart for the system

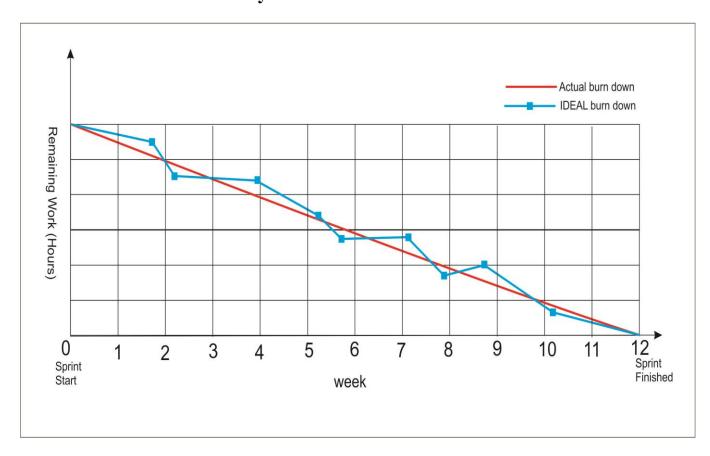


Figure 37: Burn down chart for system developing

7.8 Gantt chart for the System Development

| ID | Task Name | Start | Finish | Duration | Jan 2017 | Feb 2017 | | | | Mar 2017 | | | | Apr 2017 | |
|----|------------------------|-----------|-----------|----------|-------------|----------|-----|------|------|----------|-----|------|------|----------|---------|
| | | | | | 1/15 1/22 1 | 1/29 2 | 2/5 | 2/12 | 2/19 | 2/26 | 3/5 | 3/12 | 3/19 | 3/26 | 4/2 4/9 |
| 1 | Project Proposal | 1/16/2017 | 1/20/2017 | 5d | | | | | | | | | | | |
| 2 | Project Planning | 1/23/2017 | 1/26/2017 | 4d | | | | | | | | | | | |
| 3 | Requirement Gathering | 1/27/2017 | 2/9/2017 | 10d | | | | | | | | | | | |
| 4 | System analyzing | 2/16/2017 | 2/22/2017 | 5d | | | | | | | | | | | |
| 5 | Design and Development | 2/23/2017 | 3/8/2017 | 10d | | | | | | | | | | | |
| 6 | Implementation | 3/16/2017 | 3/29/2017 | 10d | | | | | | | | | | | |
| 7 | Testing | 3/30/2017 | 4/5/2017 | 5d | | | | | | | | | | | |
| 8 | User Documentation | 4/3/2017 | 4/6/2017 | 4d | | | | | | | | | | | |
| 9 | User manual | 4/7/2017 | 4/11/2017 | 3d | | | | | | | | | | | |
| 10 | Project Submit | 4/12/2017 | 4/13/2017 | 2d | | | | | | | | | | | |

Figure 38 : Gantt chart for the System

Conclusion

When considering the EC system, initially it is used to add EC claims for the students who are late to submit the assessments on time. In here, as same as students the other staff members such as Administrator, EC Coordinator and EC manager can use this system to perform different types of tasks such as Approve or reject claims, generate statistical reports and exception reports Regarding the Claims and Number of students in each faculty and each year. And also in this documentation I have included specially the more types of UML diagrams to identify the processes and functionality of the system. And also I have included the different types of screenshots and coding of the EC system of the University of GrrenIsland. And also I have included the evidence for using the agile methodology by mentioning the scrum meetings of the each type of sprint.

Figure List

| Figure 1 : High - Level use case for the system | 15 |
|--|----|
| Figure 2 : Low Level use case for the Manage the System data | 17 |
| Figure 3: Use case Description for the Edit claims | 18 |
| Figure 4 : ERD for the System | 21 |
| Figure 5 : Design of the User table | 22 |
| Figure 6 : Design of the Administrator table | 22 |
| Figure 7 : Design of the EC claims | 23 |
| Figure 8 : Design of the EC Coordinator | 23 |
| Figure 9 : Design of the Student | 24 |
| Figure 10 : User Table with the Test data | 24 |
| Figure 11 : Administrator table with data | 25 |
| Figure 12 : EC Manager table with Data | 25 |
| Figure 13 : Student table with data | 26 |
| Figure 14 : EC Coordinator table with data | 26 |
| Figure 15 : Class Diagram for the system | 29 |
| Figure 16 : Activity Diagram for user login | 30 |
| Figure 17 : Activity Diagram for the Add claims | 31 |
| Figure 18 : Activity Diagram for view claims | 32 |
| Figure 19: State chart for the User login | 33 |
| Figure 20 : State chart diagram for add EC claims | 34 |
| Figure 21 : State chart diagram View claims | 35 |
| Figure 22 : Collaboration Diagram for user login | 36 |
| Figure 23 : Collaboration diagram for view claims | 36 |
| Figure 24 : Sequence diagram for User login | 37 |
| Figure 25 : Sequence diagram for view claim | 38 |
| Figure 26 : Screen design for the Home page | 39 |
| Figure 27: Screen design for the Contact us form | 40 |
| Figure 28 : Screen design for EC Manager Page | 41 |
| Figure 29 : Screen design for EC claims web page | 42 |
| Figure 30: Navigation structure of the system | 43 |
| Figure 31 : The Home page | 45 |

| Figure 32 : The Main page | 52 |
|--|----|
| Figure 33 : Administrator Login with wrong | 64 |
| Figure 34 : The error message for Wrong EC manager login | 64 |
| Figure 35 : Student login with wrong user details | 64 |
| Figure 36 : Error Message for Test number | 65 |
| Figure 37: Burn down chart for system developing | 72 |
| Figure 38 : Gantt chart for the System | 73 |

Table List

| Table 1 : Use case Description for login | 16 |
|--|----|
| Table 2 : Use Case Description for Submit EC Claim | 16 |
| Table 3: Use case Description for View Claim | 17 |
| Table 4: Use case Description for manage the system data | 18 |
| Table 5: Use case Description for the Edit claims | 19 |
| Table 6: Navigation link for the Home page | 44 |
| Table 7: Navigation link for CONTACT US page | 44 |
| Table 8 : Navigation link for Main page | 44 |
| Table 9: Navigation link for EC claim page | 44 |
| Table 10: Test case for login | 60 |
| Table 11: Test case for Submit EC claims | 60 |
| Table 12: Test case for update student details | 61 |
| Table 13 : Test case for Report generations | 61 |
| Table 14: Test log for login process | 62 |
| Table 15: Test log for submit claim | 63 |
| Table 16: Test log for upload student | 63 |