

Requirements Specification

Mar 10, 2016

Teachers' Grading System

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I. INTRODUCTION

1.1 Purpose

The purpose of this document is to specify the software requirements and a logical model of the Teachers' Grading System in a clear and consistent manner.

1.2 Scope

This software will be used to implement a computational grid wherein teachers can compute and submit grades of students, as well as a way for students to view their grades online.

1.3 List of definitions and abbreviations

This section contains the definitions of all used terms, acronyms and abbreviations in this document.

Application	A combination of a set of shell scripts and a set of (URLs to) platform dependent data.
Client	Program that is used by all the users except those in the role of resource provider.
Customer	Admins, Teachers and Students. The persons who will be using this software
Data	Either platform dependent/independent data.
Internet Browser	Software/s that are used to browse the internet. i.e. Google Chrome, Mozilla Firefox, Internet Explorer, Opera, Safari, etc.
OS	Manages all the other programs in a computer. i.e. Windows 7
URL	A link for a certain webpage.

1.4 Use Case Scenario

Individuals: Brandi Quijano, instructor at Motherboard University, location Vidal Tan Hall.
AJ Severino, student at Motherboard University, location Vidal Tan Hall.

Equipment: ACER Desktop attached to Motherboard University network. Mozilla Firefox 44 browser.

1. BQ turns on the ACER Desktop and automatically signs into Motherboard University network.
2. BQ starts browser and types URL for grading system website and logs in using employee number and password.

3. Grading system displays list of options.
4. BQ selects Section, Subject and starts encoding grades per students and hits submit.
5. BQ wants to add a new column for a new project for the students.
6. BQ clicks the Add new column and fills the information.
7. BQ saves the new data.
8. BQ pushes a button to show the graph of mean, median and mode per subject/student.
9. BQ publishes the grades for the students to view, EV receives an email notification that grades are available for viewing.
10. BQ logs off of the website and the computer.
11. AS turns on the ACER Desktop and automatically signs into Motherboard University network.
12. AS starts browser and types URL for grading system website and logs in using student number and password.
13. Grading system displays option to view grades.
14. AS views grades and wants to dispute a grade.
15. AS finds out no option to dispute grade.
16. AS logs off of the website and the computer.

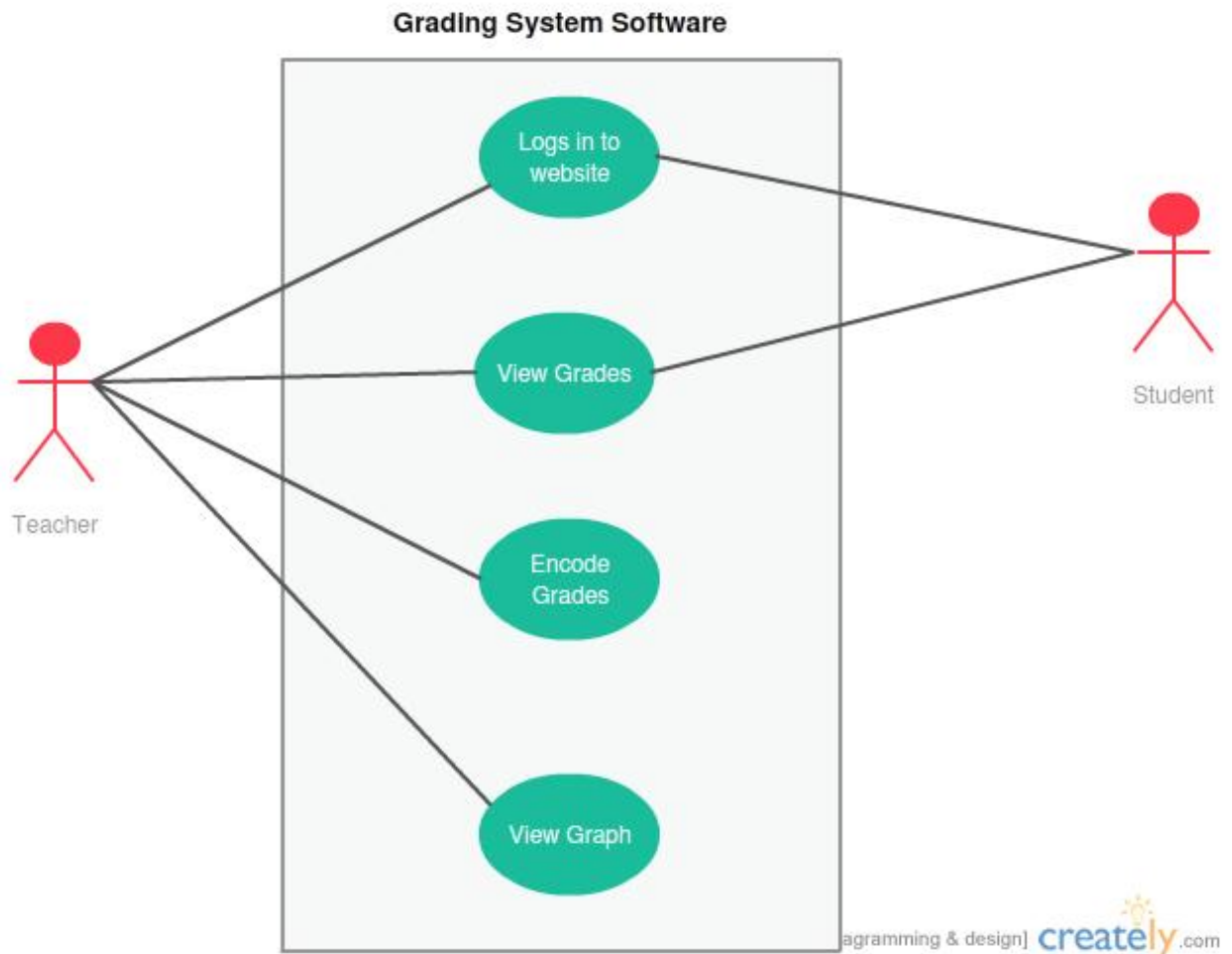


Figure 1

II. DESCRIPTION

2.1 General Description

The software will run on major internet browsers like Mozilla Firefox (Version 43 and higher) or Google Chrome (Version 50.0.2661.18 dev-m) and Windows 7 operating system. The software will be able to determine if students are fully paid with their tuition so as to be able to view their grades online. The teacher will be able to calculate grades and a specific button to publish the grades for viewing.

The students and teachers will be required to create a password of their own choosing, 8-20 characters where they are required to input an uppercase, a lowercase and a number. The students and teachers' default usernames are their student ID numbers and employee numbers respectively.

The user is also required to enter a valid email address for the notification of grades and for resetting of password in case a user forgot their password. If the student goes inactive for 15 minutes, the system will automatically log the student out. Same goes for the teacher but for 30 minutes. The software will also allow teachers to create a bar graph for the mean, median and mode of the grades per subject and section.

2.2 Product Perspective

Just like any other system in a school, a grading system contributes a huge effort in making the school work a lot easier. As compared to the old grading system, which is solely based on Microsoft Excel, the software will automate the process and make work more efficient. This system will provide a service that can be used for its different functionality.

2.3 Product Functions

The main purpose of this system is to deliver a service to the school that will help the users to attain their desired output within short period of time. By the help of the functionalities listed below, the user is only required to input and the system will do the work to deliver the expected output to the user.

2.4 User Characteristics

Admin

- These are the officials and board members of the school and other IT Staffs.

Faculty

- These are the people who encode and edit grades for different students.

Students

- They can only view their grades. Otherwise, not if their grades are not yet available, or if their tuition fees are not yet fully paid.

2.5 General Constraints

- Those teachers that are not computer literate.
- Need an internet connection.
- Works on Google Chrome, and Mozilla Firefox and other major internet browsers (Internet Explorer, Opera, etc.).
- If the system is down, there is no back-up. The admin will call for an expert.

2.6 Assumptions and Dependencies

- If the teachers are not computer literate they are required to undergo a training.
- The school is required to have an internet connection.
- They should have a specific internet browser: such as Google Chrome and Mozilla Firefox.
- For instance the system went down, they should call an expert on retrieving their data.

III. REQUIREMENTS SPECIFICATION

3.1 Functional Requirements

Inputs:

1. A teacher/student inputs his/her employee ID / student ID and password to access the software.
2. A teacher inputs his/her student's name.
3. A teacher inputs his/her handled subject/s.
4. A teacher inputs his/her given exercises.
5. A teacher inputs the grades of the students using the grading sheet.
6. A teacher inputs his/her grading system per exercise given.
7. A student must input his/her e-mail and student ID for grade notification

Behavior:

1. Formula in computing for grades must be stated.
2. Grades can be viewed by teachers and students.
3. Grades cannot be viewed by students if:
 - a. There are no grades available yet for a certain subject
 - b. The student is not yet fully paid.

4. Only administrators/teachers can add a subject, section, and name of student if one is not on the list.
5. Administrators/Teachers will be given a 30-minute period and students will be given a 15-minute inactivity while using the app, the app will log out after the said time period.
6. Students are only limited to viewing the own grades.
7. Teachers and admins can add/remove a function in computing grades.

Outputs:

1. Display if logged-in successfully or not.
2. The students' names must be displayed.
3. Subject/s handled by the teacher must be displayed.
4. Each column will be represented by a code of the teacher's exercise/activity given.
5. Fees of a student.

3.2 Non-Functional Requirements

Usability, documentation and training

- User must be able to know basic computer skills.
- Can only be accessed by trained teachers.

Reliability and quality assurance

- Help / FAQs available at the website.
- Report errors via e-mail** / mobile*

Performance

- Best viewed on Google Chrome (Version 50.0.2661.18 dev-m).

Supportability

- Windows 7 or higher.
- Mozilla Firefox Browser (Version 43 and higher).
- Google Chrome (Version 50.0.2661.18 dev-m).
- Other major internet browsers (Internet Explorer, Opera, etc.).

*Response time expected within 24 hours.

**Response time expected within 48 hours.

3.3 Implementation and technical constraints

- Can only be accessed by the students using the computers that are connected to the IP address that is being used by the school.
- Can be accessed anywhere by teachers and administrators of the school using separate and approved accounts.
- Grades cannot be viewed by students if:

- a. There are no grades available yet for a certain subject.
- b. The student is not yet fully paid.
- Requires a stable internet connection for a more convenient usage.

3.4 Interfaces and compatibility

- Windows OS compatible. (Windows 7 and Higher)

3.5 Packaging and security

- Security questions are required for each account created.
- Blocks account access after 3 failed attempts, a report will be sent to the user's email if someone is trying to access one's' account.
- Account can only be activated after approval from administrators and by answering security questions.
- The students and teachers will be required to create a password of their own choosing, 8-20 characters where they are required to input an uppercase, a lowercase and a number. This is required for added security of one's account.

IV. DEPLOYMENT

Our recommended web-hosting company who will deliver and manage the website is iPage. It is one of the leading webhosting companies who offer the lowest rates services and free offers. The first term is \$1.99 per month or \$23.88 per year or P1,026.84 on its first year. Their launch plan for a 36-month term is for \$323.64 or P13,916.52.

iPage offers free domain registration for the first year, unlimited disk space, email addresses, and MySQL Databases. They also offer 24/7 phone, email and chat support.

The domain name will be www.mbu.edu.ph and the email address will be in lastname.firstname@mbu.edu.ph format webmail format.

V. APPENDICES

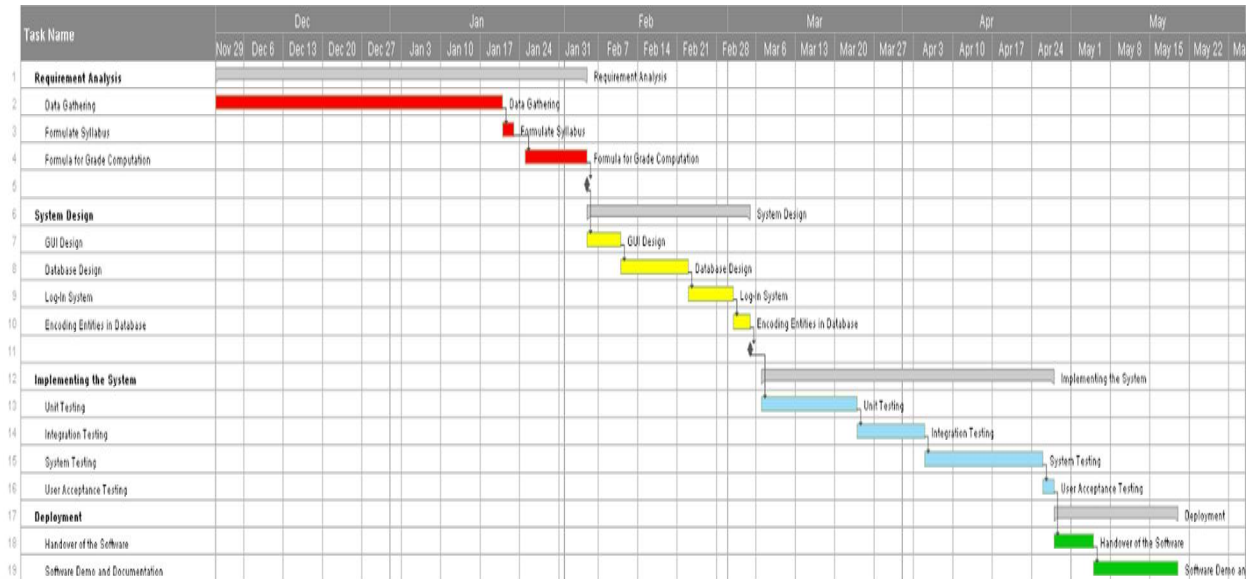


Figure 2

Depicts the timeline of the project thru Gantt chart. Milestones represented after each stage.

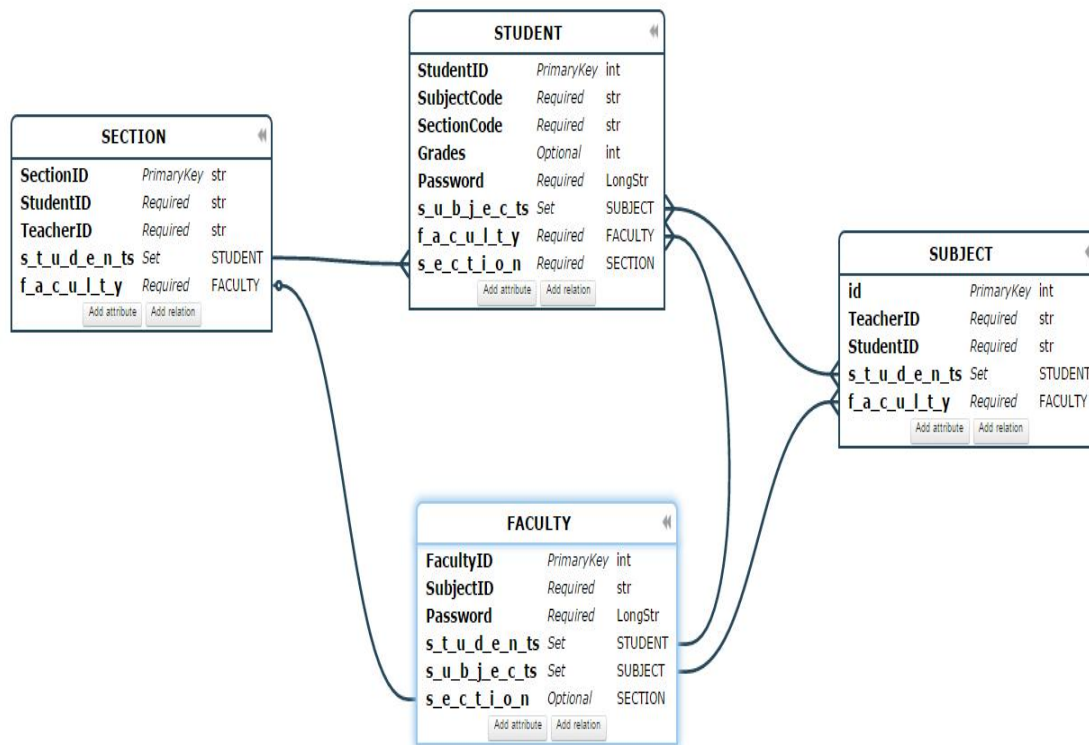
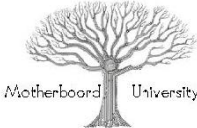


Figure 3

Displays the ERD of the software.

STORYBOARD

Motherboard University | Home



ID

2016-0235

Password

Log-in

[Forgot password?](#)


REMINDERS:

- Please settle your account balances on or before March 16 (Wednesday)
- Holy Week Break (No classes on March 21 - March 25)
- Parent-Teacher Association meeting on March 28 (Monday)
10:30am - 11:30am Room 204

-> Go to Faculty Account

Figure 4.1
Log-in page

Motherboard University | My Account



Logout

WELCOME STUDENT!

My Profile

Grades

Fees

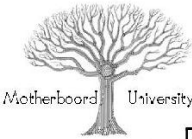
Announcements

Help

Figure 4.2
Student Welcome Page

Motherboard University | My Account

[My Profile](#)
[Announcements](#)
[Grades](#)
[Fees](#)
[Help](#)
[Logout](#)



MY GRADES

DiCaprio, Leonardo

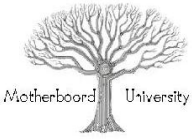
FILM	Q1	Q2	Q3	Q4	Grade
HW	100	100	100	100	100
Quiz	85	86	88	90	87.25
Midterm	92	94	85	87	89.5
MP1	65	65	65	65	65

Print


Figure 4.3
Student Grades Viewing Page

Motherboard University | My Profile

[My Profile](#)
[Announcements](#)
[Grades](#)
[Fees](#)
[Help](#)
[Logout](#)



My Profile



Last name : DiCaprio
First name : Leonardo
Section : Film
Student ID : 2016-0235

Figure 4.4
Student's Profile Viewing Page



Motherboard University Fees																				
<div>  <div> My Profile Announcements Grades Fees Help Logout </div> </div>																				
<div>  <div> <div>FEES</div> <table> <tr> <th>Fee</th><th>Amount Paid</th><th>Amount Balance</th></tr> <tr> <td>Tuition Fee</td><td>P21000.00</td><td>P5252.10</td></tr> <tr> <td>Laboratory Fees</td><td>P2000.00</td><td>P8089.50</td></tr> <tr> <td>On-field Activity</td><td>P500.00</td><td>P150.00</td></tr> <tr> <td></td><td></td><td></td></tr> <tr> <td></td><td></td><td></td></tr> </table> </div> </div>			Fee	Amount Paid	Amount Balance	Tuition Fee	P21000.00	P5252.10	Laboratory Fees	P2000.00	P8089.50	On-field Activity	P500.00	P150.00						
Fee	Amount Paid	Amount Balance																		
Tuition Fee	P21000.00	P5252.10																		
Laboratory Fees	P2000.00	P8089.50																		
On-field Activity	P500.00	P150.00																		

Figure 4.5
Student's Fees Viewing Page

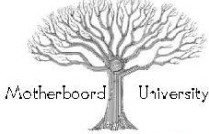
Motherboard University Faculty Account						
<div>  <div> <div>WELCOME Mr. Freeman!</div> <div> My Profile Students Announcements Grades Grade Chart Help </div> </div> </div>						

Figure 4.6
Teacher's Welcome Page

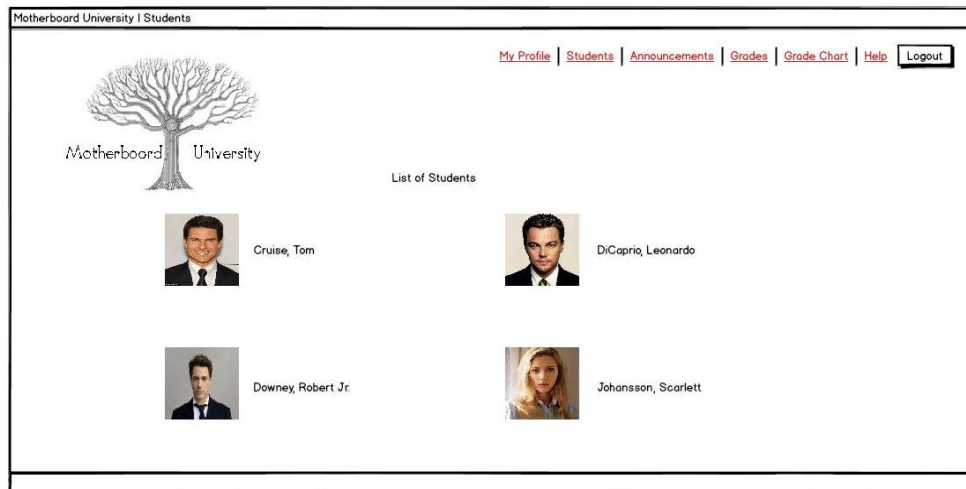


Figure 4.7

Teacher's Student Viewing Page

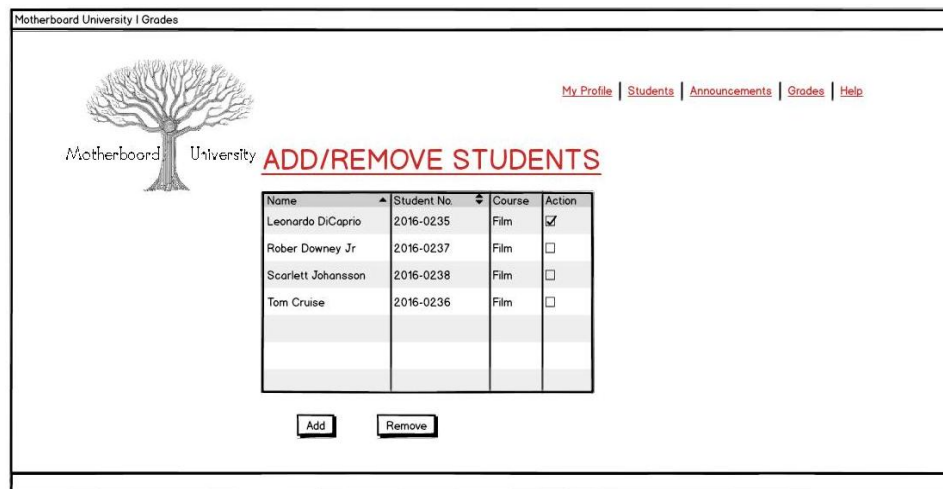
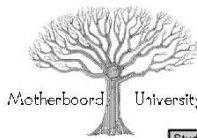


Figure 4.8

Teacher's Adding and Removing Students Page

Motherboard University | Grades

[My Profile](#)
[Students](#)
[Announcements](#)
[Grades](#)
[Help](#)
[Logout](#)


Motherboard University

GRADES

Student Name	Subject	HW1	Quiz 1	Quiz 2	MP 1	Grade
Tom Cruise	Film	100	100	100	100	100
Leonardo DiCaprio	Film	85	86	88	90	87.25
Robert Downey Jr.	Film	92	94	85	87	89.5
Scarlett Johansson	Film	65	65	65	65	65

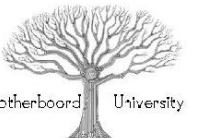
[Add/Remove Student](#)
[Add/Remove Activity](#)
[Show Graph](#)
[Show Statistics](#)

Figure 4.9

Teacher's Grade Viewing Page

Motherboard University | Grades

[My Profile](#)
[Students](#)
[Announcements](#)
[Grades](#)
[Help](#)


Motherboard University

ADD/REMOVE ACTIVITIES

Student Name	Subject	HW1	Quiz 1	Quiz 2	MP 1	Grade
Tom Cruise	Film	100	100	100	100	
Leonardo DiCaprio	Film	86	88	90	87.25	
Robert Downey Jr.	Film	94	85	87	89.5	
Scarlett Johansson	Film	65	65	65	65	

[Add](#)
[Remove](#)

Figure 4.10

Adding and Removing Activities Page

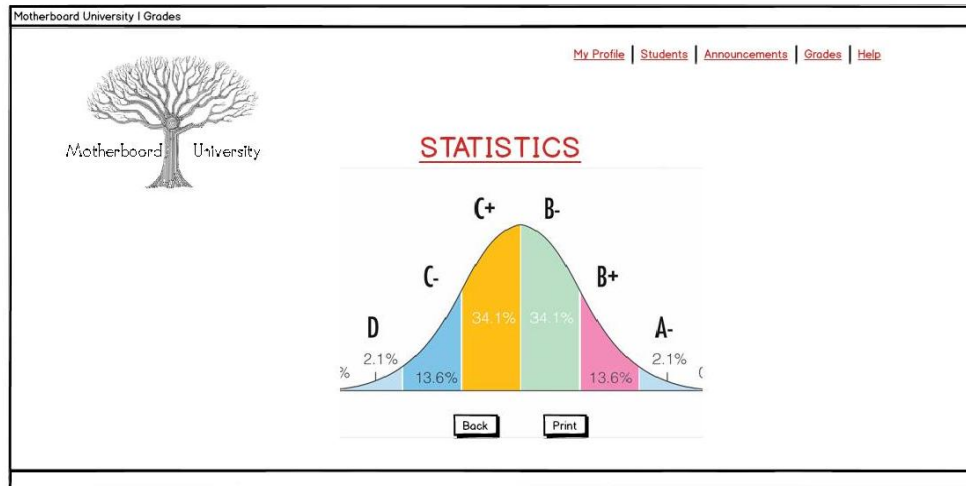


Figure 4.11

Statistics Page

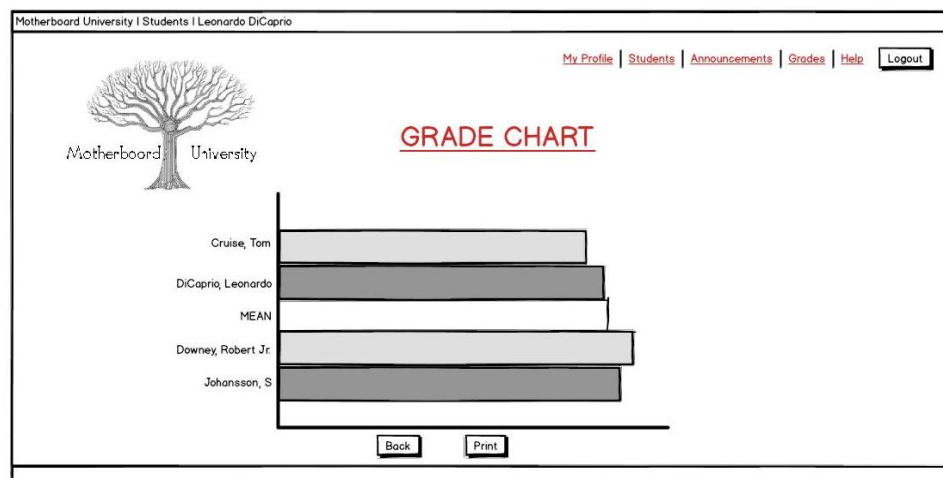
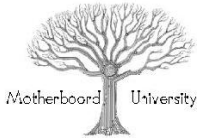


Figure 4.12

Grade Chart Viewing


Motherboard University | Announcements

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[Grades](#)
[Students](#)
[Help](#)
[Logout](#)



ANNOUNCEMENTS

Finally! A Student from Motherboard University wins an Oscar!



Leonardo DiCaprio's Oscar acceptance speech was certainly one for the record books. After six previous Academy Award nominations, DiCaprio finally joined the ranks of Oscar winners and took home the 2016 Oscar for Best Actor in a Leading Role. DiCaprio, now 41, was first nominated in 1993 at the ripe age of 19 for Best Supporting Actor for his work in What's Eating Gilbert Grape.

Thank you all so very much. Thank you to the Academy, thank you to all of you in this room. I have to congratulate the other incredible nominees this year for their unbelievable performances. The Revenant was the product of the tireless efforts of an unbelievable cast and crew I got to work alongside. First off, to my brother in this endeavor, Mr. Tom Hardy. Tom, your fierce talent on screen can only be surpassed by your friendship off screen. To Mr. Alejandro G. Iñárritu, as the history of cinema unfolds, you have forged your way into history these past 2 years... thank you for creating a transcendent cinematic experience. Thank you to everybody at Fox and New Regency... my entire team. I have to thank everyone from the very onset of my career... to Mr. Jones for casting me in my first film to Mr. Scorsese for teaching me so much about the cinematic art form. To my parents, none of this would be possible without you. And to my friends, I love you dearly, you know who you are.

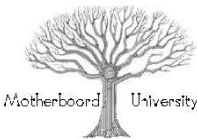
Leonardo addressing his speech after receiving his first Oscars

Figure 4.13

Announcements Page

Motherboard University | Help and Frequently Asked Questions

[My Profile](#)
[Announcements](#)
[Grades](#)
[Fees](#)
[Help](#)
[Logout](#)



Here are some of our website regulations:

1. Grades can be viewed by teachers and students.
2. Grades cannot be viewed by students if:
 - a. There are no grades available yet for a certain subject
 - b. The student is not yet fully paid.
3. Only administrators/teachers can add a subject, section, and student if one is not on the list.
4. Administrators/Teachers will be given a 30-minute period and students will be given a 15-minute inactivity in using the app, the app will log out after the said time period.
5. Students are only limited to viewing the grades.
6. Can only be accessed by the students using the computers that is connected to the IP address that is being used by the school.
7. Can be accessed anywhere by teachers and administrators of the school using separate and approved accounts.
8. Blocks account access after 3 failed attempts, a report will be sent to the user's email if someone is trying to access one's account.
9. Account can only be activated after approval from administrators and by answering security questions.

If you have more questions
Report errors via
E-mail : mje@gmail.com**
Hotline : 0921-2121654*

*Response time expected within 24 hours
**Response time expected within 48 hours

Figure 4.14

Help Page

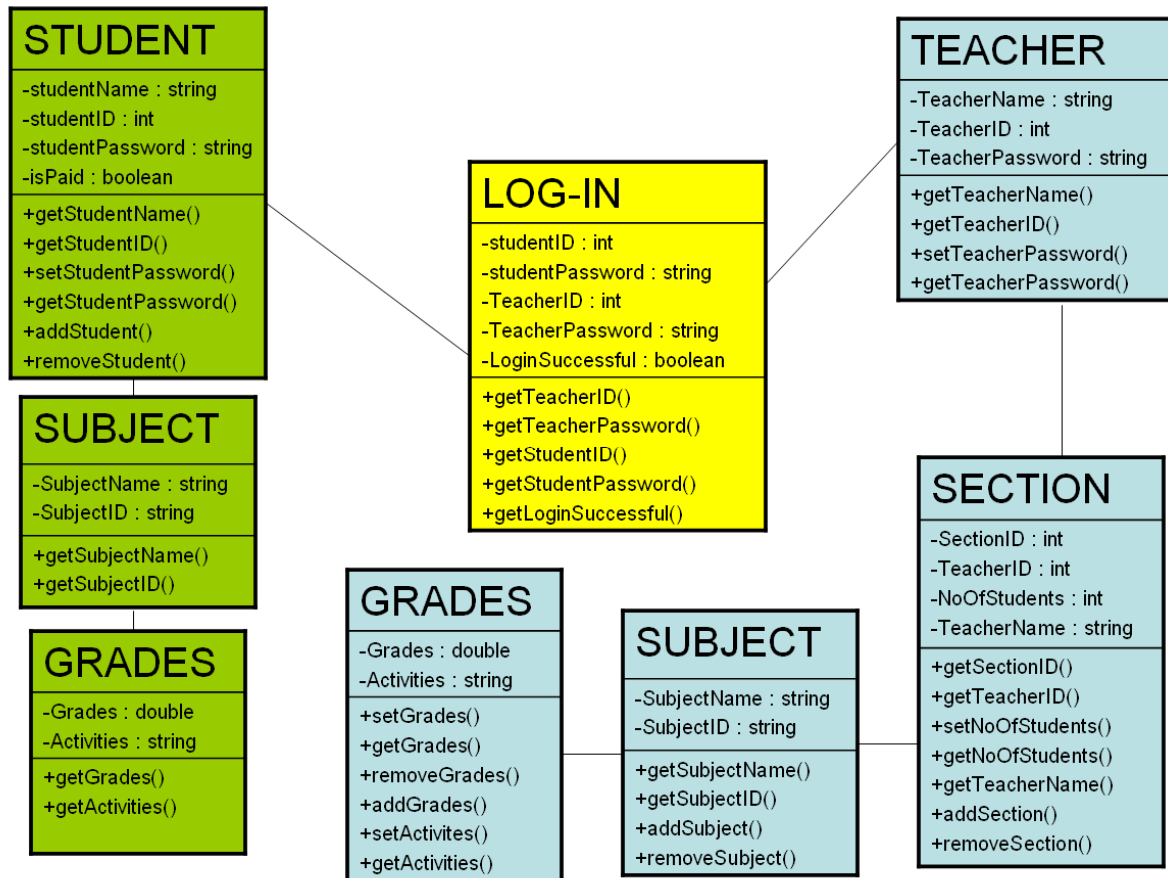


Figure 5

UML Diagrams