CS 319 / Object-Oriented Software Engineering
Term Project:

"Mastering Bilkent"
Final Report

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1.Introduction

Mastering Bilkent is an educational desktop application for students to get extra materials about their lectures, and also for instructors who want to give extra lectures and materials to their students. So the reason why we've chosen this application as our project is to help both students and instructors in Bilkent University to get along with their courses more efficiently.

In the development process, we mostly focused on graphical user interfaces and visual design. We've paid attention to using visually up to date, aesthetic and non eye-straining buttons, pages, and other visual images. Another thing we've focused on was good documentation. The listing of courses and their contents are also important parts for the end users, so we've focused on them too. Also, we're using a database so that the profiles of the users and courses along with their contents can be saved safely. So in case of service shut down or any other abnormality, the information about users and courses will not be lost.

In conclusion, *Mastering Bilkent*'s target market is Bilkent Students and instructors who want to engage in course materials in a visually attractive, user friendly, and reliable environment.

2. Application Setup

The requirements for this program are not much: The user's computer should have Java 8 SDK installed and configured properly and configure it to be the default program that opens .jar files. The system should be able to satisfy the requirements of Java 8 (like the graphics, memory, etc) and have a decent internet connection over DSL.

3. The User's Manual

Figure 3.1

When user enters *Mastering Bilkent* s/he will see our application's login page. If a user isn't

signed up to our sistem, s/he can register via the "Register Now!" link.
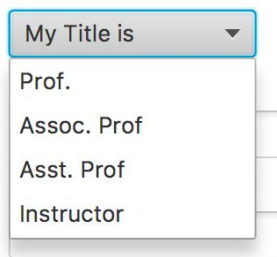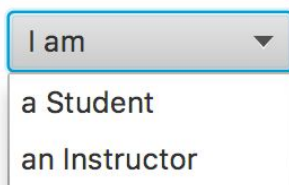
Figure 3.2

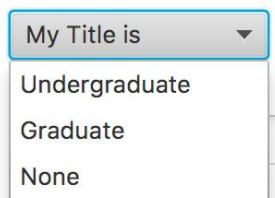In this screen user have to select whether s/he is an instructor or a student and one of the corresponding titles.

Figure 3.3

For Students

Figure 3.4

For Instructors

Figure 3.5

Figure 3.6

This is a sample Registration Page that is filled up by a student.

Figure 3.7

User will encounter with error messages (Figure 3.7) when inappropriate information is entered or nothing is entered into the mandatory areas.
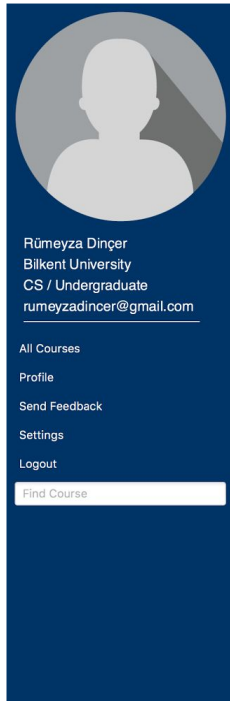
Mastering Bilkent Student Home Page

Register Another Course

Rümeyza Dinçer
Bilkent University
CS / Undergraduate
rumeyzadincer@gmail.com

All Courses

Profile

Send Feedback

Settings

Logout

Find Course

Figure 3.8

A student will see this page when s/he logins the system properly at the first time. A student

can reach the current available courses by "All Courses" link at the left navigation bar.

Register Another Course

Figure 3.9 & Figure 3.10

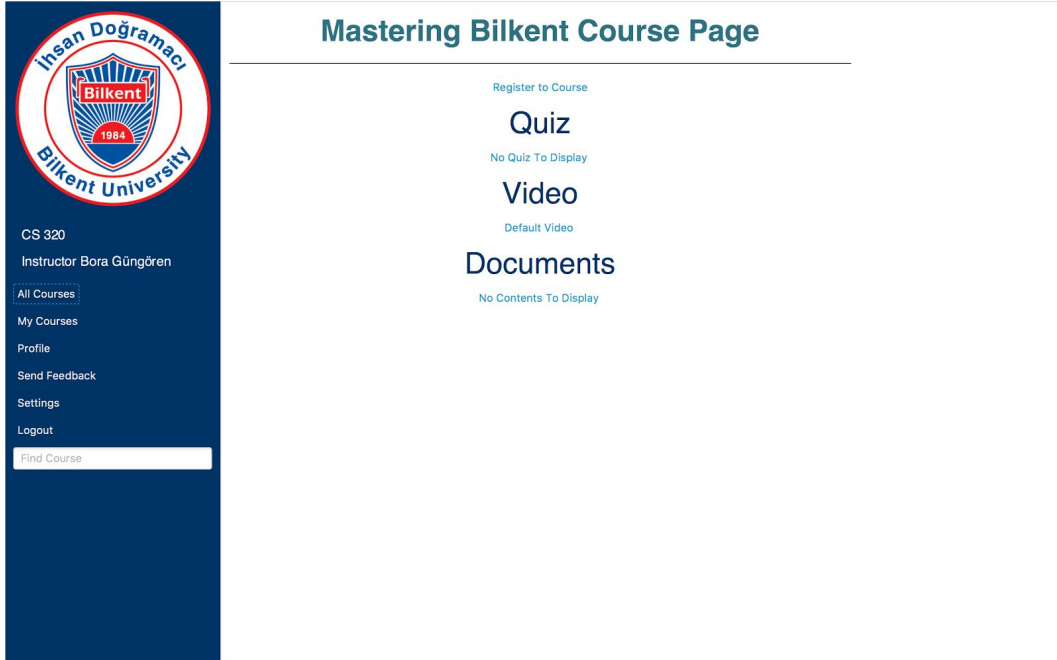These two pages above are course offering pages that a student sees when s/he clicks "All Courses" link.

Figure 3.11

When user clicks the specific course link, cours page appears. For students, "Register to Button" link provides registration for selected course.
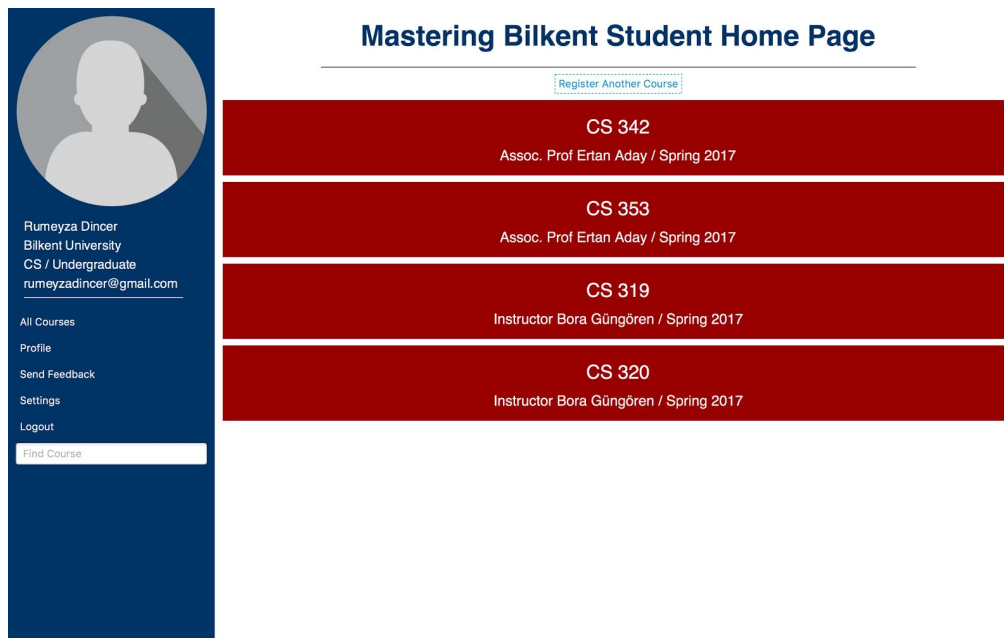

Figure 3.12

When student registers courses, his/her home page shows like Figure 3.12.
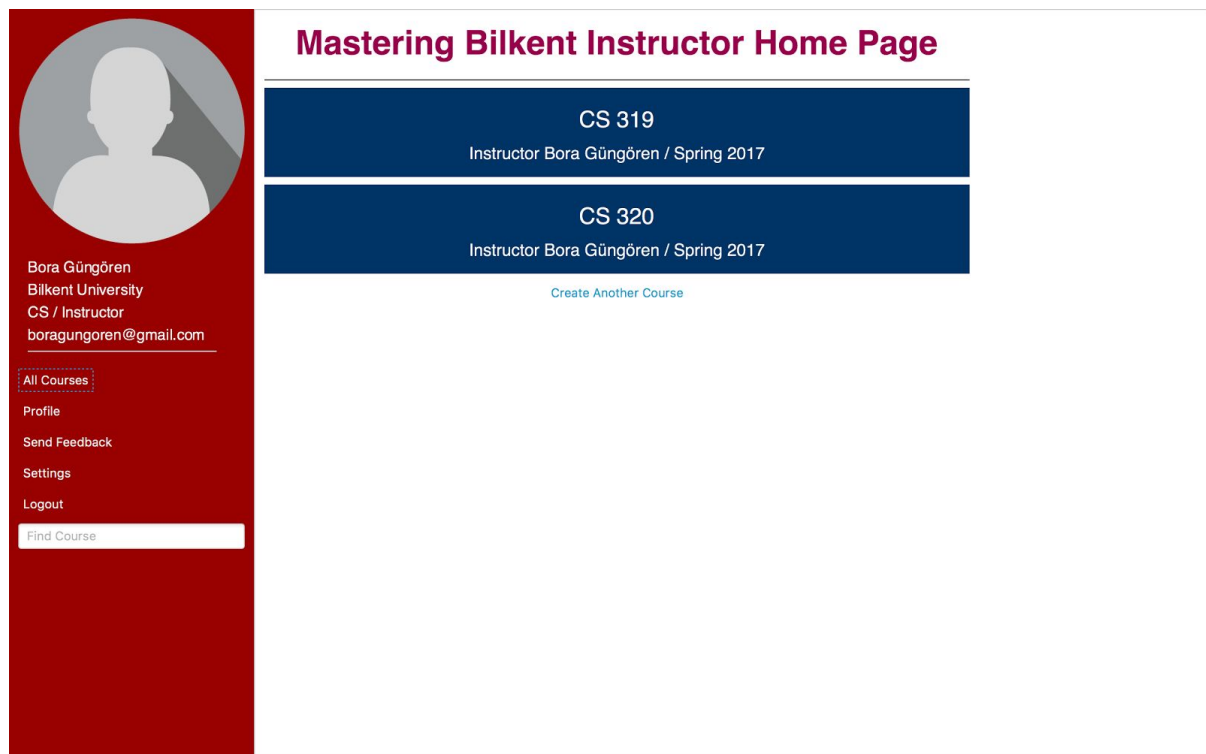
Figure 3.13

If a user registered as instructor and logins his/her home page will seem like Figure 3.13. S/he

can create new courses by "Create Another Course" link.

"Create Another Course" link will pops up

"New Course" screen.

Figure 3.14

After creating course instructor can go to the course page and add contents by "Add Content" link which will appear in Figure 3.11 if instructor enters the his/her own created course page. This link will pops up "Choose Content Box":
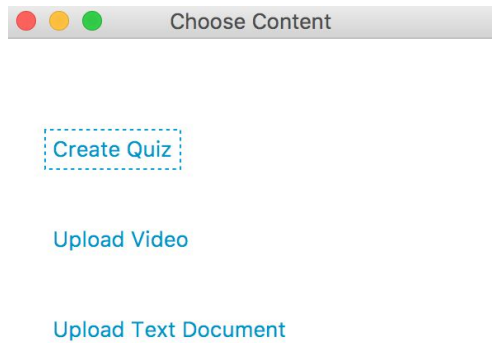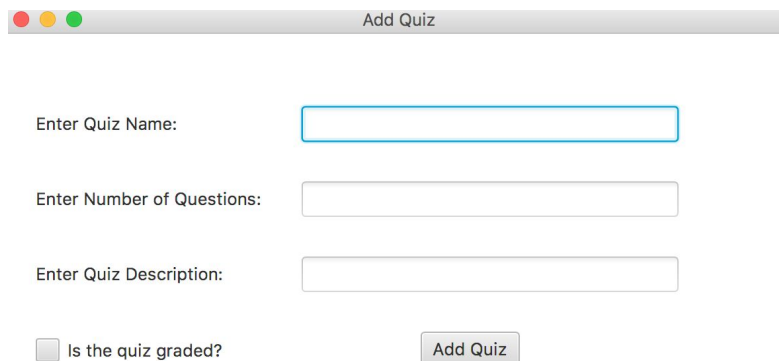

Figure 3.15

Create Quiz Link :

Figure 3.16

Instructor can create a quiz by entering required information above. Then s/he have to add questions by Figure 3.17 :

MASTERING BILKENT

Enter Question Text: | |

Enter First Choice: [   ]

Enter Second Choice: [   ]

Enter Third Choice: [   ]

Enter Fourth Choice: [   ]

Enter Fifth Choice: [   ]

Enter Answer: [   ]

[Add New Question]

Return to Course Page

Figure 3.17

Lastly, instructor can give a specific video url and upload it to the system Figure 3.18. We

embed this video to our application. Later, other users can reach this video by a pop up screen

created by Mastering Bilkent.

Add Video

Enter Video Name: [   ]

Enter Video URL: [   ]

[Add Video]

Figure 3.18

4. What's Changed During The Implementation Stage

During our implementation we did not have to change any of our major components, however, most of the changes we did are due to incomplete end product. The biggest change was we planned to use off-the-shelf components for course components' UI. However we could not found anything we like and ended up implementing video UI ourselves. And for the rest of the components we could not make them in time. Therefore, we only have quiz and video UI implemented in the end product.

5. What's Left

As it is proposed in the Analysis and Design Report, significant parts of the project are handled successfully. There are three parts left which couldn't be finished during the implementation stage.

The first part we could not put our contents which are pdf, audio, text to the database. Therefore, we are not able to show these components inside that course view and also allow Instructors to add these components to the database thus their courses.

The second part is in our Design Report we promised to make a grade class for quizzes to collect quiz data and report them to Instructor of the course but we could not implement it. So, the final application does not manage graded quizzes.

The last part is we could not implement a take quiz page for students to attempt the quizzes that are added to the courses by the Instructors. Therefore, it is not possible to see what is inside a quiz at the moment.