



Daffodil
International
University

Project Documentation

Project: E-learning platform

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DECLARATION OF PROJECT

Author Full Name: Enamul Hakim Khan

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Title of Project: E-Learning Platform

Academic Session: 2023

I, the author, hereby declare that the project becomes the property of Daffodil International University (DIU) and to be placed at the department of Software Engineering. I also give permission to the DIU to reproduce this project in whole or in part for the purpose of research or academic exchange only.

Certified by:

SIGNATURE

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Date:

SIGNATURE OF INSTRUCTOR

NAME OF INSTRUCTOR: MD. SHOHEL ARMAN

Date:

E-learning platform

ABSTRACT

E-learning platforms serve as digital environments tailored for the dissemination of educational content and training via the internet. They afford users the opportunity to avail themselves of a diverse array of courses and learning materials at their own tempo, thereby promoting adaptability and accessibility. These platforms frequently integrate interactive components, such as discussion forums and quizzes, to actively engage learners. Assessment tools are employed to furnish feedback on individual progress, while multimedia elements are strategically incorporated to enrich the overall learning milieu. Furthermore, collaborative features facilitate interaction among learners, fostering the exchange and sharing of knowledge.

CHAPTER 1: INTRODUCTION

1. Project Over view

E-learning platforms are virtual spaces created especially to distribute training materials and instructional content online. On these platforms, users are able to access a variety of courses and educational resources at their own pace, which encourages adaptability and increased accessibility. Interestingly, in order to actively engage students, these platforms usually incorporate interactive elements like discussion boards and quizzes. The use of multimedia components enhances the whole learning process, and assessment tools are essential for providing feedback on students' progress. These platforms' collaboration features also make it easier for students to engage with one another, creating an atmosphere that is favorable to knowledge exchange and group projects.

2. Obstacles

While writing the project's code, I ran into a few difficulties. This project is too big for one person to handle alone. But then I make the decision to accept this challenge. I've tried to utilize straightforward code to simplify this system. The quiz creation mechanism is the hardest component of the entire system. In order to create this section, I must first use a random file creation method to create an address for each quiz file.

3. Technology Requirement (Software and hardware)

Software and application

- ❖ Visual Studio Code
- ❖ Code Blocks
- ❖ Dev-C++

4. Support

Provide the full support for maintenance. Give proper support so that the project will run smoothly.

5. Milestone and reporting

- Analysis
- Development
- Testing

Milestone	Tasks	Hours	Date
1.	Analysis	240	8/8/2023
2.	Development		27/8/2023
3.	Testing		1/11/2023

6. Training

Give proper training to control the whole project.
To maintain properly without any issue.

7.Contact me

You can contact me in any of the below ways:

Email: khan22205341127@diu.edu.bd

Mobile: +8801779460991

8. Requirement Elicitation

1. Teacher
2. Student

Task of teacher:

- Login with username & password.
- Teacher can see dashboard with all subjects , notification's and student information.
- Teacher can see students enroll request.
- Teacher can add subject.
- Teacher can add lecture.
- Teacher can add quiz.
- Teacher can see students quiz activity.

Task of student:

- Login with username & password.
- Student can search course for enroll .
- Student can send course adding request to teacher .
- Student can assign course with enrollment key.
- Student can read teacher lecture.
- Student can attend quiz.

System Task:

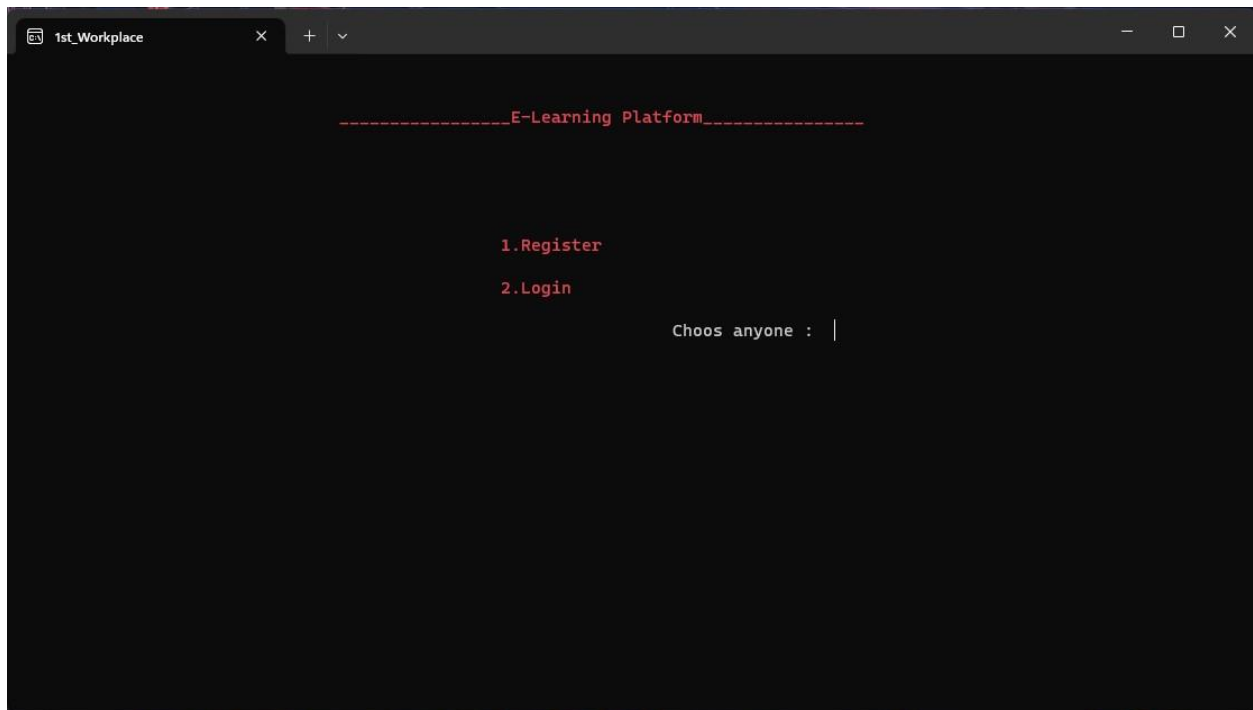
- It will automatically save teacher & student information.
- It will automatically verify & check all information.
- Student & teacher has individual dashboard.
- It process all data individually then make result.

CHAPTER 2: PROJECT METHADOLGY AND USER MANUAL

This log in page is the starting page of my project. I add lots of feathers in my project, but first you need to register for log in any portal.

Press 1. Register

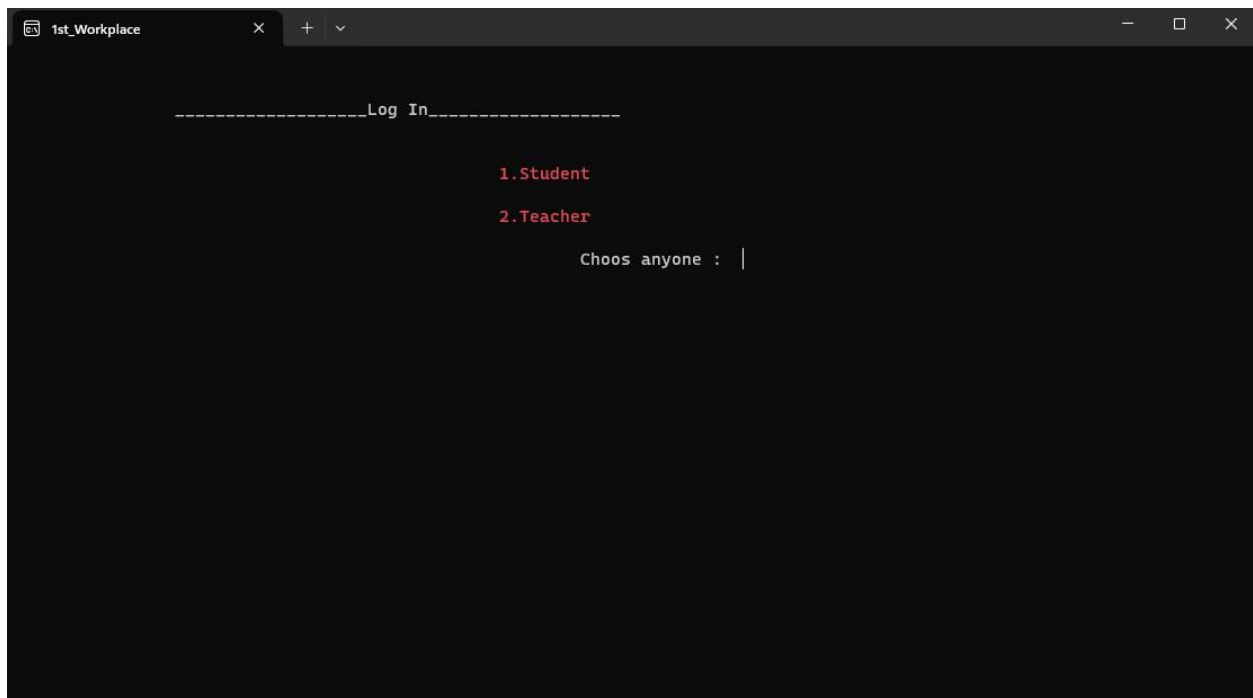
Press 2. Login



After registering, you can log in to your portal.

Press 1. Student

Press 2. Teacher



Teacher portal

Here is teacher portal in my project. In this portal has a dashboard for showing subject information. It also has lots of features, but all feature is activated by adding subject. If you are not adding a subject, then you can't access any feature in this portal

Press 1.Add subject

Press 2. Remove subject

Press 3. Add lecture

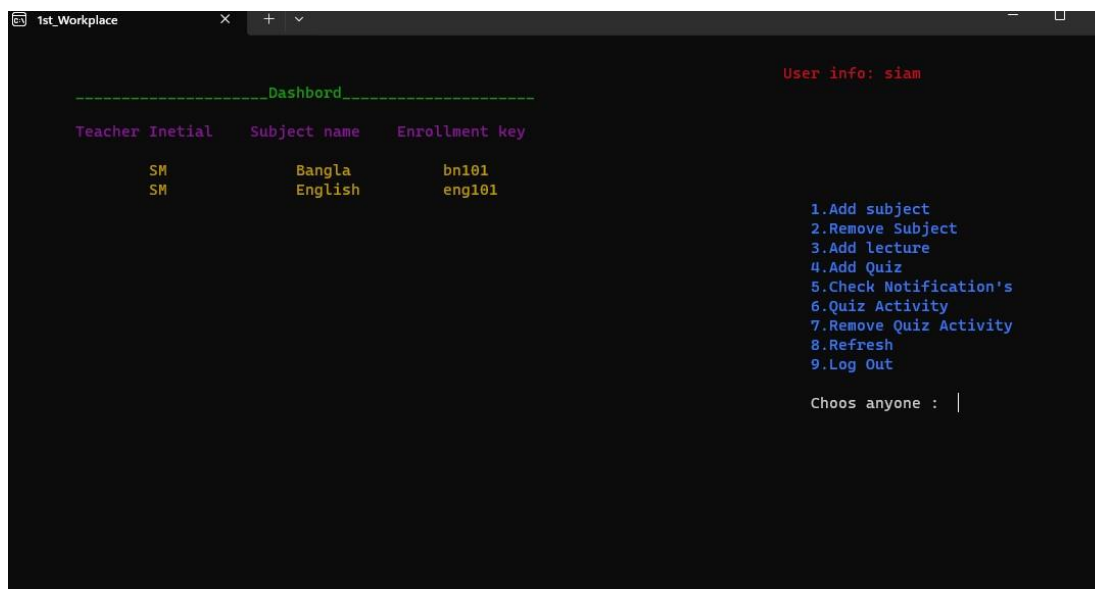
Press 4. Add Quiz

Press 5. Check Notification's

Press 6. Quiz Activity

Press 7. Remove Quiz Activity

Press 8. Refresh



```
1st_Workplace x + v
-----Dashboard-----
User info: siam

Teacher Inetial  Subject name  Enrollment key
SM              Bangla      bn101
SM              English    eng101

1.Add subject
2.Remove Subject
3.Add lecture
4.Add Quiz
5.Check Notification's
6.Quiz Activity
7.Remove Quiz Activity
8.Refresh
9.Log Out

Choos anyone : |
```

To add a subject, you need to input the teacher's initials and the quantity of subjects, then press enter.

```
-----Add New Course-----  
  
Name Initial : SM  
  
Subject quantity : 1|
```

For adding, you need to provide a name for the subject and a unique enrollment key. Press Enter.

```
Subject Name : science  
  
Enrolment key : s101|
```

If you want to remove any course then you select 2 and in this feature also available a dashboard showing all courses. For removing course, you need to enter some information.

For example, here is a screenshot.

```
-----Course Removing-----
User info: siam
-----Your course list-----
Subject name  Enrollment key
Bangla        bn101
English       eng101
science       s101

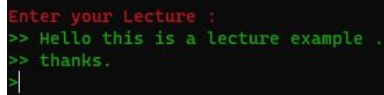
Name Initial : SM
Subject Name : science
Enrolment key : s101|
```

Then next feature is add lecture in this feature teacher can able to add lecture for any course. To continue this process we need to enter subject name and enrollment key and then set a unique code or character type digits . and it also a dashboard for showing all subjects.

```
-----Add New lecture-----
-----Your course list-----
Subject name  Enrollment key
Bangla        bn101
English       eng101

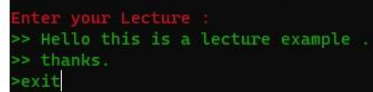
subject name : English
subject enrolment key : eng101
Lecture no/code : e1|
```

Then you can write your lecture with space and when your writing complete and you need to leave then you just type “exit” then press 2 time enter button .

A screenshot of a terminal window with a black background. The text is displayed in red and green. The prompt 'Enter your Lecture :' is in red. The input '>> Hello this is a lecture example .' is in green. The input '>> thanks.' is in green. The cursor is on the next line, indicated by a green '>' and a vertical line.

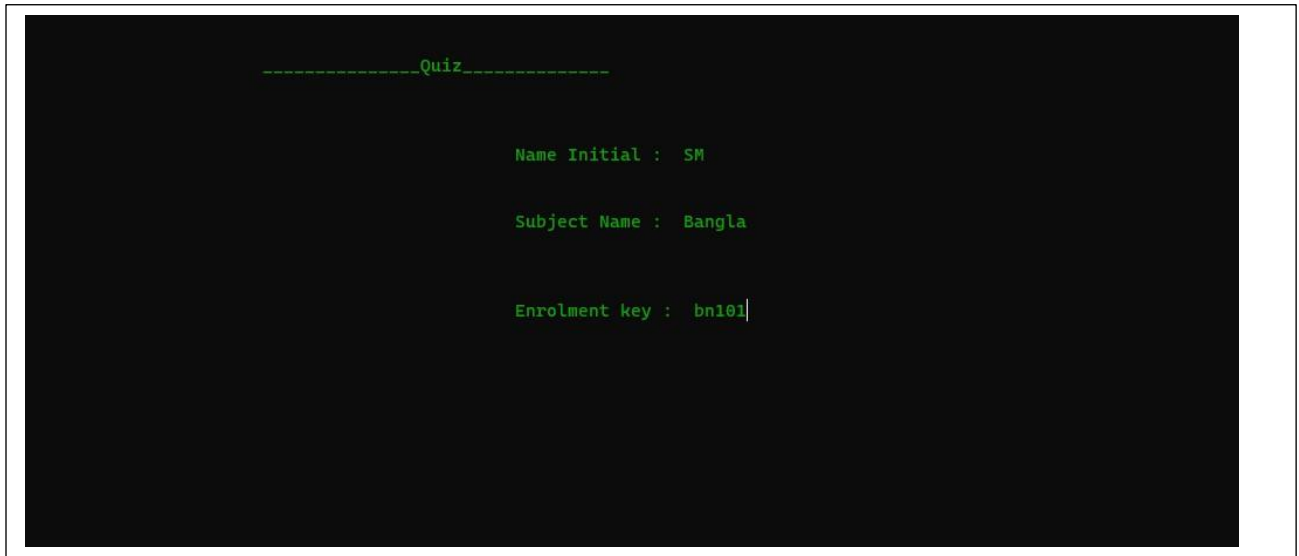
```
Enter your Lecture :  
>> Hello this is a lecture example .  
>> thanks.  
>|
```

How to exit showing in below screenshot for example .

A screenshot of a terminal window with a black background. The text is displayed in red and green. The prompt 'Enter your Lecture :' is in red. The input '>> Hello this is a lecture example .' is in green. The input '>> thanks.' is in green. The input '>exit|' is in green, with a vertical line at the end of the word 'exit'.

```
Enter your Lecture :  
>> Hello this is a lecture example .  
>> thanks.  
>exit|
```


The next feature is an Add quiz for adding quiz first teacher need to give subject information



The next feature is an Add quiz in this feature teacher can able to make some question on a subject but teachers can set question and student attend quantity for that quiz.



Next is a question, making process for making question you need to follow some rules. When your writing question after all word you need to use underscore for spacing .Then you need to set your option quantity and make option one by one then last you type the answer and press enter for making next question in the same process.

```
Question : How_are_you?

Option quantity : 2

Option 1   Fine

Option 2   Bad

Answer: Fine|
```

Next features are showing notification. This feature will show you who want's to add your course and which student are needing a retake quiz. For retake notification, color is red, and for adding request is white.

```
-----_Dashbord-----                                User info: siam

Teacher Inetial   Subject name   Enrollment key

      SM           Bangla         bn101
      SM           English        eng101

You  have a Notification

1.Add subject
2.Remove Subject
3.Add lecture
4.Add Quiz
5.Check Notification's
6.Quiz Activity
7.Remove Quiz Activity
8.Refresh
9.Log Out

Choos anyone : |
```

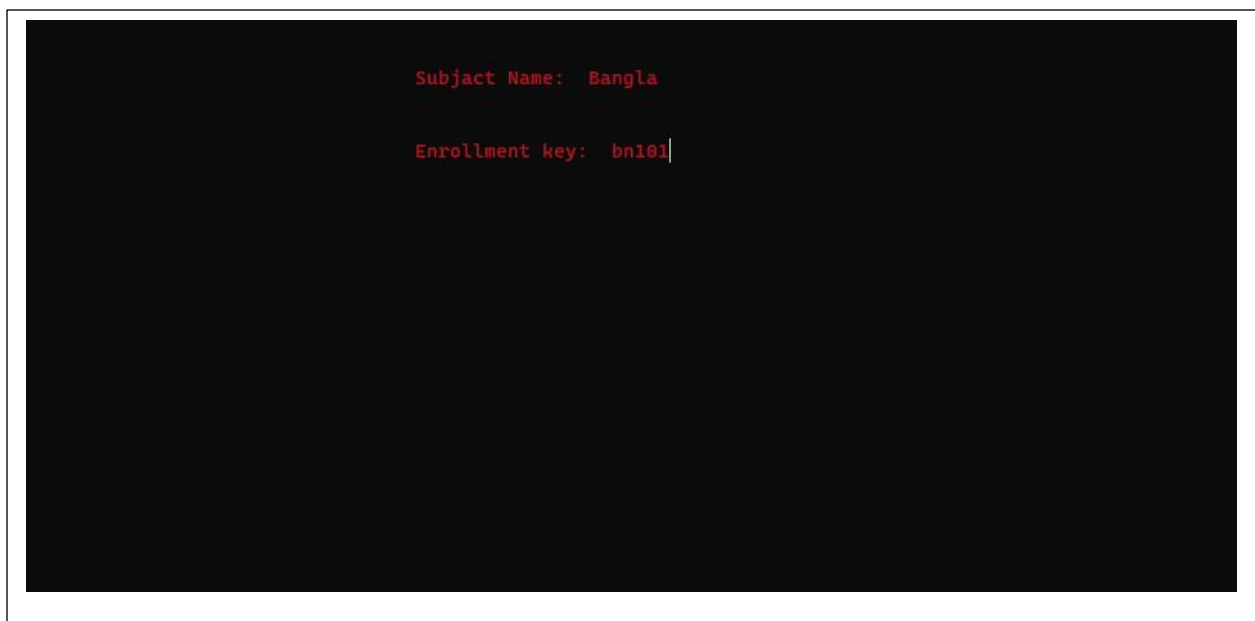
Then for showing notification you need to press 5 and you can see all type of notification information . and press 1 for clear notification.



If you press 1 then showing which notification you want to clear select that number and clear and that notification.



Next feature is Quiz activity it will show who will pass and who will fail for a single subject at a time. For showing activity, you need to enter quiz subject information.



Then your quiz activity look like this. If press 1 then clear all activity for this subject .

```
Subject Name:  Bangla

Enrollment key:  bn101

press 1 for Clear All Notifications Else press Enter

Fail fahim bn101|
```

Student portal

Here is the base interface of the student portal .For entering the student portal first you need to log in with username and password.

```

User info: fahim

-----Student Portal-----

1.Search Course
2.Add Course request
3.Corse Info
4.Log Out
Choose anyone |
```

In this portal, 1st feature is “Search course” use this feature student can find him suitable course.

Hear demo how to use this feature.

```

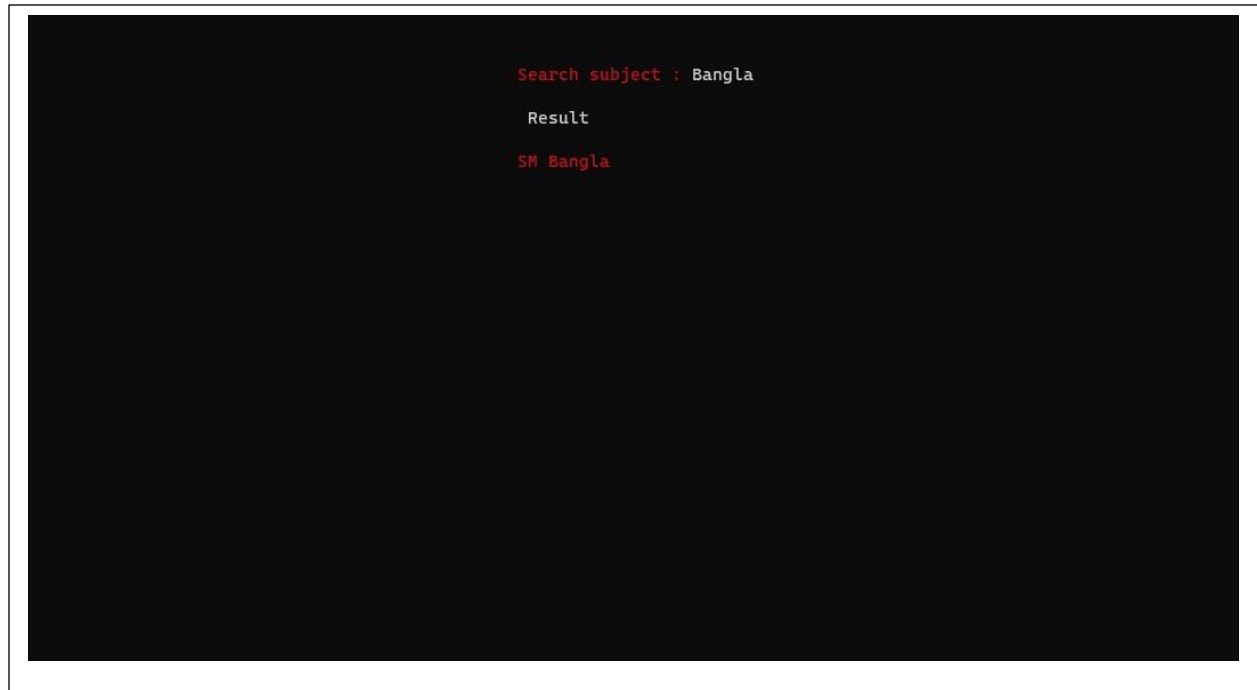
User info: fahim

-----Student Portal-----

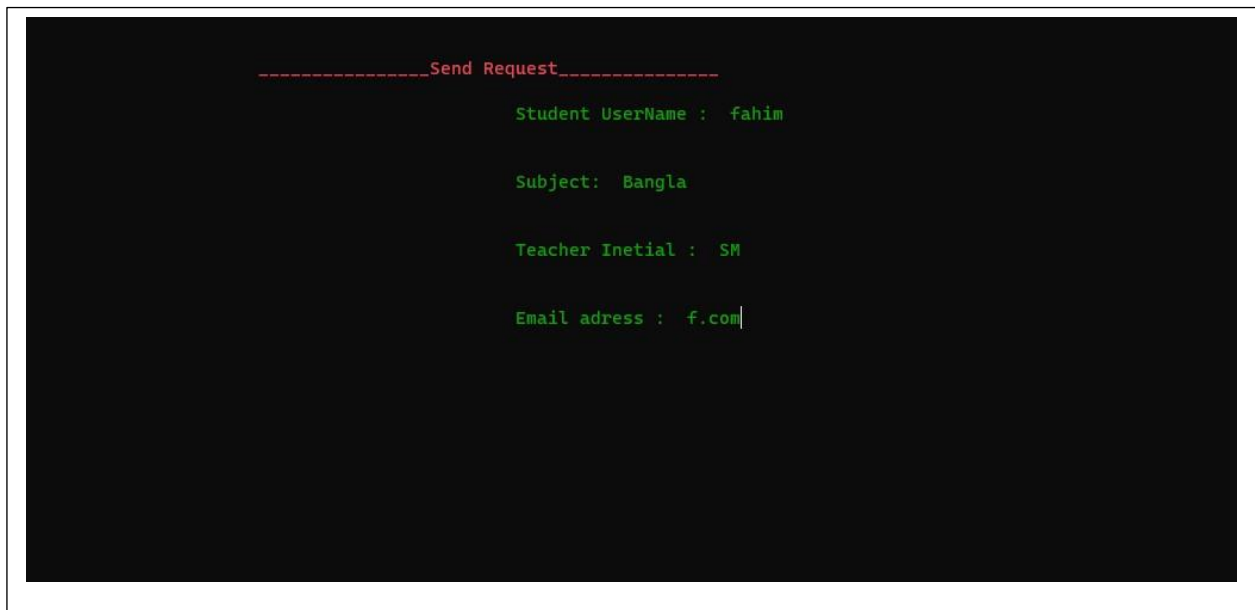
1.Search Course
2.Add Course request
3.Corse Info
4.Log Out
Choose anyone |
```

In this portal, 1st feature is “Search course” use this feature student can find him suitable course.

Hear demo how to use this feature.



In this portal, 2nd feature is “Add Course Request” use this feature student can send a course adding request to specific teacher with teacher Initial. It will show that teacher’s portal by notification.



In this portal, 3rd feature is “Course info” use this feature student can see the course information .

Hear is the interface.

```

User info: fahim

You are not assign any course Yet

1.Assign Course
2.Attend a quiz
3.Read lecture
4.Exit

Choss anyone |
```

In this feature has 3 useful features and 1st feature is “Assign Course” use this feature student can assign any cause.

Hear demo how to use this feature.

```

-----Assign Course-----

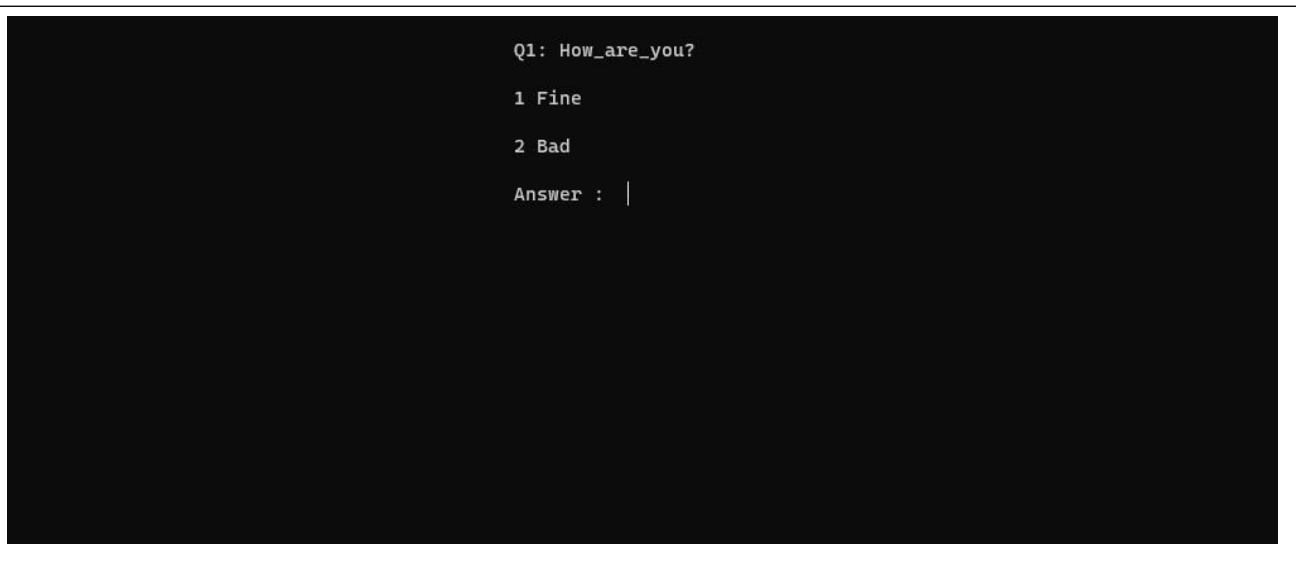
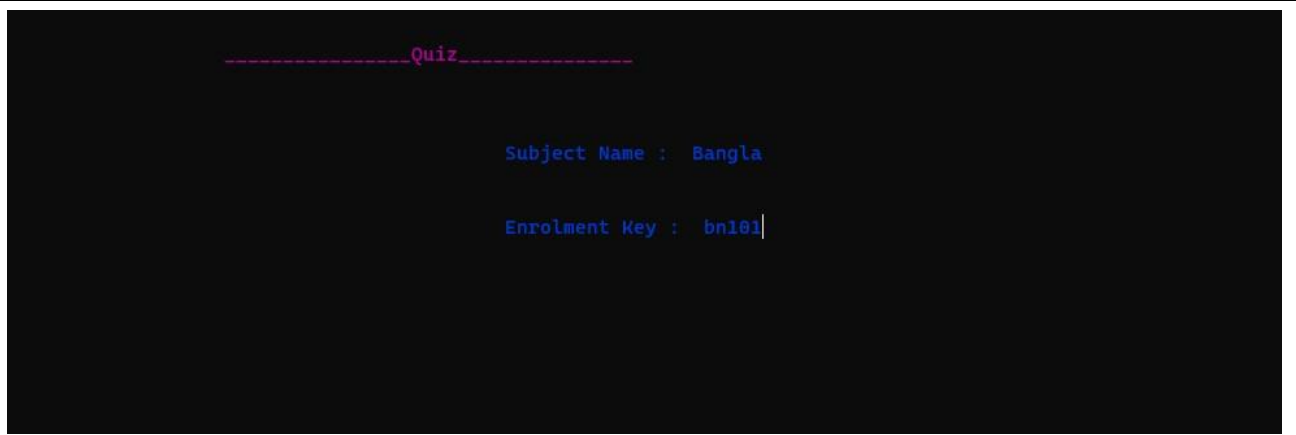
Teacher Initial : SM

Subject Name : Bangla

Enrolment Key : bn101|
```


And 2nd feature is “Attend a quiz” use this feature student can attend quiz a subject.

Hear demo how to use this feature.



If student answer wrong then it showing wrong answer.

Hear demo how to use this feature.

```
Q1: How_are_you?  
1 fine  
2 bad  
Answer : bad  
  
Answer is Wrong  
Correct Answer : fine|
```

If student answer correct then it showing answer is correct.

Hear demo how to use this feature.

```
Q1: How_are_you?  
1 Fine  
2 Bad  
Answer : Fine  
  
Answer is Correct|
```

After ending quiz it will you make a result.

Hear is the interface.

```
Pass Mark : 2 Your Current Answer 1
You are fail|
```

And 3rd feature is “Read lecture” use this feature student can read lecture for any subject.

Hear demo how to use this feature.

```
Enrollment key : eng101
lecture no : e1
>>
Hello this is a lecture example . thanks.|
```

CHAPTER 3: SYSTEM INFO

3.1 DESIGN AND IMPLEMENTATION

Software language used

- C language

3.2 REQUIREMENT SPECIFICATION

Windows OS Xp , Windows Vista or Windows 7. At least 2.0 GHz Processor speed, At least 40 GB Hard Disk Capacity and 512 RAM

3.3 File management

In my system, make lots of random name file for its own use purpose, and after use it can delete it automatically. And this file are not countable because it depends on user command and user can delete it manually from user console.

3.4 PRIORITIZATION

SL.NO	Requirement	Doller
1	Add Subject	12\$
2	Remove Subject	7\$
3	Add Lecture	8\$
4	Add Quiz	7\$
5	Check Notifications	6\$
6	Quiz Activity	6\$
7	Remove Quiz Activity	5\$
8	Refresh	5\$
9	Log Out	4\$
10	Search Course	4\$
11	Add Course Request	3\$
12	Course Info	3\$
13	Logout	2\$
14	Assign Course	6\$
15	Attend Quiz	6\$
16	Read Lecture	6\$
17	Exit	2\$
	Total	100\$

CHAPTER 4: USE CASE & DIAGRAM

4.1 USE CASE

Use case	Registration
Goal	To make portal for using this system
Preconditions	N\A
Success End Condition	User sign up successfully
Failed End Condition	If user input same user name for registration, please try another user name.
Primary Actors;	Teacher, Student
Secondary Actors	Admin
Description / Main Success Scenario	Action

Use case	Log in
Goal	To verify the portal individually .
Preconditions	Must be registration first.
Success End Condition	Log in successfully, access the log in portal
Failed End Condition	Wrong username or password Try again.
Primary Actors;	Teacher, Student
Secondary Actors	Admin
Description / Main Success Scenario	Action

4.2 Teacher portal

Use case	Add Subject
Goal	Make course for student's.
Preconditions	N\A
Success End Condition	Add subject successfully, Subject showing on teacher dashboard.
Failed End Condition	Try another enrollment key, Invalid initial.
Primary Actors;	Teacher
Secondary Actors	N\A
Description / Main Success Scenario	Action

Use case	Remove subject
Goal	Remove course from teacher portal.
Preconditions	Must add subject in portal.
Success End Condition	Remove subject successfully
Failed End Condition	Subject not found
Primary Actors;	Teacher
Secondary Actors	Admin
Description / Main Success Scenario	Action

Use case	Add lecture
Goal	Adding lecture for a course.
Preconditions	Must add subject in portal.
Success End Condition	lecture add successfully .
Failed End Condition	Subject not found
Primary Actors;	Teacher
Secondary Actors	N\A
Description / Main Success Scenario	Action

Use case	Add Quiz
Goal	Make some MCQ question for Exam.
Preconditions	Must add subject in portal.
Success End Condition	Quiz add successfully .
Failed End Condition	Subject not found
Primary Actors;	Teacher
Secondary Actors	N\A
Description / Main Success Scenario	Action

Use case	Check notification's
Goal	Check which student need to enroll subject and who need retake.
Preconditions	Must add subject in portal.
Success End Condition	N\A
Failed End Condition	N\A .
Primary Actors	Teacher
Secondary Actors	N\A
Description / Main Success Scenario	Action

Use case	Quiz Activity
Goal	Check student quiz result.
Preconditions	Must add quiz on a subject.
Success End Condition	Showing quiz result
Failed End Condition	N\A .
Primary Actors	Teacher
Secondary Actors	N\A
Description / Main Success Scenario	Action

Use case	Remove Quiz Activity
Goal	Remove student quiz history for single subject.
Preconditions	N\A .
Success End Condition	N\A .
Failed End Condition	N\A .
Primary Actors;	Teacher
Secondary Actors	N\A
Description / Main Success Scenario	Action

Use case	Log out
Goal	Exiting from this portal.
Preconditions	N\A .
Success End Condition	N\A .
Failed End Condition	N\A .
Primary Actors	Teacher
Secondary Actors	N\A
Description / Main Success Scenario	Action

4.3 Student portal

Use case	Search Course
Goal	Searching subject's .
Preconditions	N\A .
Success End Condition	Showing result.
Failed End Condition	N\A .
Primary Actors	N\A
Secondary Actors	Student
Description / Main Success Scenario	Action

Use case	Add course request
Goal	Sending a course adding request.
Preconditions	N\A .
Success End Condition	Request send successfully.
Failed End Condition	N\A .
Primary Actors	N\A
Secondary Actors	Student
Description / Main Success Scenario	Action

Use case	Course Info
Goal	Access all course information.
Preconditions	N\A
Success End Condition	N\A
Failed End Condition	N\A
Primary Actors	Student
Secondary Actors	N\A
Description / Main Success Scenario	Action

Use case	Assign Course
Goal	Assigning course.
Preconditions	N\A .
Success End Condition	Assign successfully.
Failed End Condition	Invalid information.
Primary Actors	Student
Secondary Actors	N\A
Description / Main Success Scenario	Action

Use case	Attend a quiz
Goal	Attend quiz a subject.
Preconditions	Must assigning a course .
Success End Condition	N\A.
Failed End Condition	Invalid information.
Primary Actors	Student
Secondary Actors	N\A
Description / Main Success Scenario	Action

Use case	Read lecture
Goal	Read lecture on a subject.
Preconditions	Must assigning a course .
Success End Condition	N\A.
Failed End Condition	Lecture not found.
Primary Actors	Student
Secondary Actors	N\A
Description / Main Success Scenario	Action

CHAPTER 5: CONCLUSION

"E-learning platform software developed by C programming language offers a robust and efficient solution for creating, managing, and delivering online educational content. It is a testing prototype and I thought to make this system with c about 6 months ago. It is a challenging project for me, but now I think I successfully finish this project.

Alhamdulillah.

3.1 Use Case Diagram

