**DEPARTMENT OF COMPUTER & INFORMATION SYSTEMS ENGINEERING**

**BACHELORS IN COMPUTER SYSTEMS ENGINEERING**

**Course Code: CS-115**

**Course Title: Computer Programming**

**Complex Engineering Problem**

**FE Batch 2021, Fall Semester 2021**

**Grading Rubric**

**TERM PROJECTGroup Members:**

|  |  |  |
| --- | --- | --- |
| **Student No.** | **Name** | **Roll No.** |
| S1 | **MUHAMMAD ALI** | **CS-104** |
| S2 | **MUHAMMAD SAMEED FAYIZ** | **CS-127** |
| S3 | **MUHAMMAD AMMAR** | **CS-135** |

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| --- | --- | --- | --- | --- | --- | --- |
| **CRITERIA AND SCALES** | | | | **Marks Obtained** | | |
| **S1** | **S2** | **S3** |
| Criterion 1: Does the application meet the desired specifications and produce the desired outputs? (CPA-1, CPA-3) | | | |  |  |  |
| 1 | 2 | 3 | 4 |
| The application does not meet the desired specifications and is producing incorrect outputs. | The application partially meets the desired specifications and is producing incorrect or partially correct outputs. | The application meets the desired specifications but is producing incorrect or partially correct outputs. | The application meets all the desired specifications and is producing correct outputs. |
| Criterion 2: How well is the code organization? | | | |  |  |  |
| 1 | 2 | 3 | 4 |
| The code is poorly organized and very difficult to read. | The code is readable only to someone who knows what it is supposed to be doing. | Some part of the code is well organized, while some part is difficult to follow. | The code is well organized and very easy to follow. |
| Criterion 3: How friendly is the application interface? (CPA-1, CPA-3) | | | |  |  |  |
| 1 | 2 | 3 | 4 |
| The application interface is difficult to understand and use. | The application interface is easy to understand and but not that comfortable to use. | The application interface is very easy to understand and use. | The application interface is very interesting/ innovative and easy to understand and use. |
| Criterion 4: How does the student performed individually and as a team member? (CPA-2, CPA-3) | | | |  |  |  |
| 1 | 2 | 3 | 4 |
| The student did not work on the assigned task. | The student worked on the assigned task, and accomplished goals partially. | The student worked on the assigned task, and accomplished goals satisfactorily. | The student worked on the assigned task, and accomplished goals beyond expectations. |
| Criterion 5: Does the report adhere to the given format and requirements? | | | |
| 1 | 2 | 3 | 4 |
| The report does not contain the required information and is formatted poorly. | The report contains the required information only partially but is formatted well. | The report contains all the required information but is formatted poorly. | The report contains all the required information and completely adheres to the given format. |
| Total Marks: | | | |  |  |  |

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Teacher’s Signature

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# **1.PROBLEM DESCRIPTION:**

We have made such quiz game which is very user friendly. When you start the quiz, first it will ask the user to login as a user or an admin or you can exit. The user can simply navigate throughout the quiz by some predefined instructions. There is always an option of going back (return to previous options) in the quiz.

**User:**

If you select user part, it will ask the user to take the quiz as anonymous or as a user or the user can view his quiz scores if he/she is an existing user. After selecting the given options, it will give you 3 options to you in which you have to select your desired subject:

1. Physics 2.Maths 3.Computer Science

After selecting the desired quiz, some certain instructions are given to the user for attempting the quiz there are initially 10 questions in the quiz, the user only has to put the option letter in his answer, after every correct answer the score increases. After completing the

quiz, the user’s score is displayed after that he/she can retake the quiz, and shuffles the questions, if not the display answer option is displayed. If the user was logged in as user rather than anonymous the quiz asks the user for a username and the score is stored in that particular username. The user can also view his/her score from past quizzes.

**Administrator:**

if you select admin part it will first ask the user about the administrator password, if the password is correct, then same as the user part it will ask the user to select the desired subject and then it will ask the user to select which domain he/she wants to go, there are 3 categories:

1. Read questions 2. Remove questions 3. Add questions

After selecting the above options:

1. If you select read questions it will show questions, with their options and answers as well.
2. If you select remove questions, first it will ask you which question do you want to remove and. after you enter the desired question number then that question will be removed.
3. If you select add questions it first displays the format of adding the question, options and its answer. After taking the input the following question will be added to the quiz.

# **2.DISTINGUISHING FEATURES:**

The most distinguishing feature of this code is the feature of password we have provided to the administrator to in the admin\_module. In this we have created a file of admin\_pass.txt in which we have save our passwordand demand from the admin to enter password to login to admin mode. We have not hard code the password but also give the option to change the password by using write mode in the file which deletes the old password and creates a new password in the file.

The other distinguishing feature is the random built-in module which we imported and use its shuffle method by which we shuffle the numbering of the question which is coming from the file. This module also helps us to prompt 10 questions from the list is any order while the list contains more than 10 questions.

# **3.FLOW CHART:**

Input answer

Answer checking

Input Q.no

Add questions

Remove questions

Read questions

maths

user

Login as:

administrator

Password

physics

Comp. science

Input Questions +options +answers

Questions +options +answers

Math’s

Comp. science

physics

Display answer

Retake (optional)

Score updating

10 Questions displayed

removed

Input answer

Answer checking

# **4.MOST CHALLENGING PART:**

The most challenging part of this code is in the user module to make the function of quiz game in which we have to take question and options from the file and then print it and asks for the answer from user and save it and compare it from the correct answer and increment score which we have previously declared as score=0.

So, we first initialize the list of question and then question part and by using nested for loop we copy the question from the pre-defined list of question bank which was created using readlines () function and then by using for loop we print the questions and options to the user and asks answer from the user.

# **5.NEW THINGS LEARNT IN PYTHON WHILE WORKING:**

* We have learned how the filing works that you can open them using different modes and can read write or append content.
* We have learned about random function that why it used.
* We have learned how to import different parts of your project into the main file.
* We have learned about functions and how they are efficient for reducing and managing the code.

# **6.INDIVIDUAL CONTRIBUTION:**

## **MUHAMMAD ALI(CS-104):**

The display\_quiz(), quiz\_select() in the user module and remove\_func() is programmed by Muhammad Ali and he contributed is the project report.

## **MUHAMMAD SAMEED FAYIZ(CS-127):**

The quiz\_game (), user\_login (), in the user module and change\_pass () and admin\_pass() function in admin module is programmed by Muhammad sameed fayiz. He also programmed the additional feature to change password on the administrator module and helped us to improve the code and also contributed in the report of the project.

## **MUHAMMAD AMMAR (CS-135):**

The add\_func (), read\_func (), and admin () in admin module is programmed by Muhammad ammar and he also contributed in the project report.

# **7. FUTURE EXPANSIONS:**

In future we would like to add timer in our quiz and GUI based.

We can also add double checks in password verification process in admin module.

# **EXAMPLES OF THE RUN CASES:**











