# Project Documentation: -

1. **Introduction :-**

The Quiz Generator project is a Java-based command-line application designed to create and administer quizzes on various subjects. This application allows users to generate quizzes, add questions with multiple-choice options, specify correct answers, and take the quizzes to test their knowledge.

1. **Classes :-**
   1. **:- Quiz**

* **Purpose: -** Represents a quiz consisting of a subject and a list of questions.
* **Attributes :-** String - Subject of the quiz, List<QueManager> - List of questions in the quiz.
* **Methods:- Quiz(String quizSubject)**: Constructor to initialize the quiz with a subject.

**addQuestion(QueManager question)**: Method to add a question to the quiz.

**getQuizSubject()**: Method to get the subject of the quiz.

**getQuestions()**: Method to get the list of questions in the quiz.

* 1. **:- QueManager**
* **Purpose: -** Manages individual questions in the quiz.
* **Attributes: -** String - Text of the question, List<String> - List of options for the question, int - Index of the correct answer in the options list.
* **Methods:- QueManager(String questionText)**: Constructor to initialize the question with text.

**addOptions(String option)**: Method to add an option to the question.

**setCorrectAnswer(int correctAns)**: Method to set the correct answer for the question.

**getQuestion()**: Method to get the text of the question.

**getOptions()**: Method to get the list of options for the question.

**getAnswer()**: Method to get the index of the correct answer.

* 1. **:- QuizController**
* **Purpose :-** Controls the flow of the application by interacting with the user.
* **Attributes :-** Scanner - Scanner object for user input.
* **Methods :- createQuiz()**: Method to create a new quiz by prompting the user for input.

**startQuiz(Quiz quiz)**: Method to start the quiz by displaying questions and collecting user responses.

* 1. **:- UserInterface**
* **Purpose :-** Contains the main method to initiate the application.
* **Attributes :-** NA
* **Methods :- main(String[] args)**: Entry point of the application. Creates a QuizController instance, creates a quiz, and starts the quiz.

1. **Execution Flow :-**
   1. The **UserInterface** class contains the main method that initializes a **QuizController** instance.
   2. The **QuizController** interacts with the user to create a new quiz using the **createQuiz()** method.
   3. The **createQuiz()** method prompts the user to enter the subject and questions for the quiz, and adds them to a **Quiz** object.
   4. Once the quiz is created, the **QuizController** starts the quiz using the **startQuiz()** method.

**4. Conclusion: -** The Quiz Generator project provides a simple and effective way to generate and administer quizzes through a command-line interface. With its intuitive design and user-friendly interactions, users can easily create, take, and evaluate quizzes on various subjects.