

3 Ejaz is creating a program that will allow the user to create quizzes. He is using object-oriented programming (OOP).

There are two classes: `QuestionClass` and `QuizClass`.

The class attributes and methods are in the following tables. All attributes are declared as private.

<b>QuestionClass</b>	
<code>Question : STRING</code>	<code>// stores the question</code>
<code>Answer : STRING</code>	<code>// stores the correct answer</code>
<code>Difficulty : INTEGER</code>	<code>// stores the difficulty as an integer</code> <code>// from 0 (easy) to 10 (hard)</code>
<code>Constructor (QuestionP, AnswerP, DifficultyP)</code>	<code>// creates an instance of QuestionClass</code> <code>// sets the attributes to the parameter</code> <code>// values</code>
<code>GetQuestion()</code>	<code>// returns the question //</code>
<code>GetDifficulty()</code>	<code>returns the difficulty level</code>
<code>GetAnswer()</code>	<code>// returns the answer</code>
<b>QuizClass</b>	
<code>Questions : ARRAY[0:19] OF QuestionClass</code>	<code>// stores maximum 20 questions of</code> <code>// type QuestionClass</code>
<code>NumberOfQuestions : INTEGER</code>	<code>// stores the number of questions</code> <code>// in this quiz</code>
<code>Constructor()</code>	<code>// creates an instance of</code> <code>// QuizClass</code> <code>// initialises NumberOfQuestions</code> <code>// to 0</code>
<code>AddQuestion()</code>	<code>// adds the parameter question to</code> <code>// the array</code> <code>// increments NumberOfQuestions</code>
<code>GetQuestion()</code>	<code>// returns the next question to be</code> <code>// asked</code>
<code>CheckAnswer()</code>	<code>// takes an answer as a parameter</code> <code>// and returns TRUE if correct</code>

- (a) Write **program code** to define the class `QuizClass`. You are only required to write code for the attribute declarations and constructor.

If you are writing in Python, include attribute declarations using comments.

Use your programming language's constructor method.

- (b) The `QuizClass` method `AddQuestion()` takes a question object as a parameter and stores it in the next available location in the array `Questions`. It returns `TRUE` if it is successfully stored, and `FALSE` otherwise.

Write **program code** for the method `AddQuestion()`.

- (c) The first quiz is created with the identifier `FirstQuiz`.

The first question in this quiz is: "What is 100 / 5 ?".

The answer is "20" and the difficulty level is 1.

Write **program code** to:

- declare an instance of `QuizClass` with the identifier `FirstQuiz` •  
     declare an instance of `QuestionClass` with the identifier `Question1`
- add `Question1` to the array in `FirstQuiz` using `AddQuestion()`.