**Problem 1 - Inheritance:**

Your development team has been asked to develop a quiz app for students to use in their study. The app should enable lecturers to add questions relating to course content in a number of different formats. You have been tasked with developing the necessary question object(s). Each question type is outlined below with its necessary attributes.

**Task 1:** Outline the necessary objects in a class diagram

Basic questions will have the following attributes:

* questionText
* correctAnswer
* mark (representing the mark awarded for a correct answer )
* Answer (representing the answer entered by the user)

Multiple choice questions will have the following attributes:

* questionText
* correctAnswer
* mark (representing the mark awarded for a correct answer )
* option a, option b and option c (representing each of the possible answers)
* answer(representing the answer chosen by the user)

Essay Questions will have the following attributes:

* questionText
* correctAnswer
* mark (representing the mark awarded for a correct answer )
* answer (representing the text entered by the user)
* maxWordCount (representing the maximum word count for the essay)

Picture Questions will have the following attributes:

* questionText
* correctAnswer
* mark (representing the mark awarded for a correct answer )
* answer (representing the answer entered by the user)
* imageName (representing the image to be displayed with the question)