

Exam 02

Your organization needs an Examination system according to the following business case:

1. Design a Class to represent the **Question** Object, Question is consisting of:
 - a. **Header** of the question
 - b. **Body** of the question
 - c. **Mark**
2. System has two types of exams (Final and Practical)
3. We want the application to accept different Question Types:

For Final Exam:

- a. **True or False**
- b. **MCQ** (Choose one answer)

For Practical Exam:

- a. MCQ

Note: We need to define a **Base Question** class and every type as an inherited one.

4. We need to define a class for the **answers** (**AnswerId**, **AnswerText**).
5. **Question** is associated with an Array of answers and its right answer (**Answers [] AnswerList**).

6. Design a **Base class Exam** describe the common attributes concerning the exam:

- a. **Time** of exam
- b. **Number of Questions**
- c. **Show Exam Functionality** that its **implementations will be different for each exam based on its type.**

7. **Every Exam object is Associated to a Subject.**

Note: The **Subject** is a class that contains the following members:

- a. **Subject Id.**
- b. **Subject Name.**
- c. **Exam of the subject.**
- d. We need to implement **functionality to create the exam of the subject.**

8- **Practical Exam** **Shows the right answer after finishing the Exam.**

9- **Final Exam** **Shows the Questions, Answers and Grade.**

10- **In the Main you need to declare a subject object to create one type of exam.**

Note: Implement **Icloneable**, **IComparable**, consider overriding **ToString**, use constructor chaining (If needed).