Assignment 1

Due on 2020-09-22 23:59:59

Consider the following cases of a car:

1. Which one of the following options can be inferred from the given diagram?
   a. Crater size may be optionally measured during execution of use case B.
   b. Use case A may be optionally executed during execution of use case B.
   c. Use case C is completely executed during execution of use case B.
   d. Use case C will be completely executed during execution of use case B.

2. Which one of the following is not true about a use case?
   a. A Crater search system can be used by the users to achieve specific goals.
   b. It comprises of non-functional requirement.
   c. It defines behavior without revealing internal structure of system.
   d. It is a set of related usage scenarios tool together by a common goal.

3. Identification of the different categories of cases of a system in its use case diagram does not help towards which one of the following?
   a. Design of user interface.
   b. Design of control logic.
   c. Design of suitable user manuals.
   d. Design of controller classes.

4. How should an external system be represented in a use case diagram?
   a. Using a specific box available for this purpose.
   b. Using text descriptions.
   c. Using object comment (in UML).
   d. By connecting it with an arrow.

5. The line connecting an actor box to a use case in an UML use case diagram does not indicate which of the following?
   a. Association relationship.
   b. Includes relationship.
   c. Deduces relationship.
   d. Sticks flow relationship.

6. Which one of the following is not a mechanism supported in UML to factor a simple use case into simple use cases?
   a. Generalization-specialisation.
   b. Include.
   c. Extend.
   d. Continue.

7. Assuming that an academic institute automation software is to be developed, the students need to register at the start of every semester. However, the registration process of the post-graduates (PG) students is slightly different than the undergraduate students, since the PG students can register only for the courses, whereas the PG students are allowed to register for electives. Also, the PG students need to provide their bank account number for payment of monthly installments and also need to sign an undertaking for doing teaching consultancy. Which one of the following mechanisms should be deployed to factor the student registration into PG registration and PG registration?
   a. Inheritance.
   b. Dependancy.
   c. Include.
   d. Continue.

8. Suppose a library automation software is to be designed. In this, one of the requirements is that a book once issued, it needs to be checked whether the book has been issued by any other user. Which one of the following mechanisms is most appropriate to factor the use case into have book and check reservation use case?
   a. Inheritance.
   b. Dependancy.
   c. Include.
   d. Continue.

9. UML 1.1 was enhanced with additional notational support to help address modelling which one of the following types of applications?
   a. Embedded computer applications.
   b. Artificial intelligence applications.
   c. Data science applications.
   d. Formal applications.

10. Which one of the following choice of a system is not modelled using UML 1.1?
    a. User view.
    b. Environmental view.
    c. Structural view.
    d. Data view.