Experiential Learning on Class diagram

1. For the given classes and relationships, add appropriate attributes and operations to the class and construct a class model.

Classes:- University, College, Departments, Programme, Course, UG and PG Programme, Student, Faculty, HOD, staff, CourseCode, Credits, course_enroll, Result, Exam, QuestionBank.

Relationships:- Association, generalization. Aggregation, composition

2. Draw a class diagram for the following scenario:

A news agency gathers news and publish them to different subscribers. Create a framework for agency to be able to inform immediately when event occurs, to its subscribers about the event. The subscribers can receive the news in different ways: Email, SMS.

3. Draw a class diagram for the following scenario:

Step1: The client creates some orders for buying and selling stocks.

Step2: Then the orders are sent to the agent.

Step3: The agent takes the orders and place them to the StockTrade system.

Step4: The agent keeps an internal queue with the order to be placed.

Note: Let's assume that the StockTrade system is closed every Monday, but the agent accepts orders and queue them to be processed later on.

- 4. Given the following use case steps for placing an order in an online bookstore (like amazon.com)
 - The buyer searches through the book collection for a particular book
 - The buyer selects a book from the search result, placing it in the shopping basket
 - The buyer switches to the shopping basket, logging in into the buyers account
 - The buyer places the order from the shopping basket, confirming the payment method stored in the account
 - The buyer receives an order confirmation email.

Construct an UML class diagram for this use case which best models the requirements implied by the use case, including methods corresponding to the various actions the actor of the use case can perform