Questions - Class diagrams

1. Adwel is a small advertising company. The company wishes to develop a software system to provide facilities such as on-line access to customers to place their advertising requests and the company to manage the advertising process. The administrative staff of the company is responsible for the management of advertising campaigns. An advertising campaign required by a customer may composed of several advertisements. An advertisement may be a TV advertisement, news paper advertisement or a web-site advertisement.

   The administrative staff create a campaign and allocate technical staff according to their expertise using the system. The technical staff can use the system to update campaigns according to the progress. The administrative staff monitor the progress of campaigns. Once the campaign is completed the administrative staff perform the billing operation to charge the customer.

   Draw a use-case diagram and identify the classes in this system and draw a class diagram.

2. A school of computing conducts a semester and credit based course structure for its undergraduate degree programs. A degree program is three years of duration. A student follows a degree program. A year of study consists of two semesters. The students are offered course modules in every semester, some of which are compulsory modules and the others are optional modules. The modules are also classified as credit modules and non-credit modules.

   The school has 3 departments. A module is offered by a department and a lecturer attached to the department is responsible for conducting the module.

   Identify the classes in this problem and draw a class diagram.

3. 'World Traveler' is a travel agency, which arrange variety of travel arrangements. Customers of the agency can book for a tour package. A tour package may consists of several tours. A tour can be a cruise, business trip or a specialized holiday. A sales staff member attached to the 'World Traveler' is allocated for each tour in the tour package to provide a suitable schedule for the tour. A schedule may consists of car hire, flight and accommodation.

   Using UML notation, draw a class diagram for this information.

4.   A diagram editor should be developed   In this diagram editor,   a document may
        contain several pages. A page may consists of   several diagram objects. A
        diagram object may be text, geometric object or a group. A group itself can be a
        collection of diagram objects. A group should have at least two diagram objects.
        A geometric object can be a line, rectangle, circle or ellipse.

        Draw a class diagram using the UML notation for this system.