Q1] Draw a **class diagram**.
This is an example that **models University Courses**. Assume three classes' such as course, lecturer, student and an interface person.
Each course objects maintains a list of student on that course and lecturer who has been assigned to teach that course.
The course object has behavior that allows adding and removing student to and from course, assigning the teacher and getting a list of currently assigned student and currently assigned teacher.
A teacher may teach several courses but a course only has a single teacher .A lecturer object maintains a list of courses that it teaches, course is attended by 0 or more student and student may attend multiple courses.
A person interface will have getName() and getEmailAddress () methods both lecturer and student are shown to be the type of person.

Q2]
A system is designed for processing results of students.Students fills examination form by giving details about subject,course etc. which is an input to the system. Student pays examination fees. Fee receipt and admit card of examination is conducted at various centers.centers provide absent reports. The evaluation department provides marks of students in each subject.Marksheet and merit list are output of system.

Q3]
Draw a class diagram using StarUML for the scenario given below. This scenario is from system that models companies for a payroll or reporting system. Company object has properties such as name and employees_list and getName and getEmployees as its behavior. Employee object includes employee no, name, salary and manager as its properties getName (), getEmplyoeeNo () ,getSalary() getManager() as its methods. getManager() accepts object of manager. Company may have one or more employees. A manager object keeps manages as list property and add TeamMember(employee_list) and getTeamMember() as itsbehaviors. One or more employee can be managed by manager objects. Some employees are contractual employees who are within a lieu of a contractor object. A contractor object may have length_of _contract as its property and getLength() as its behavior.

Q4]
Draw a class diagram using StarUML for the scenario given below: This is an example that models "ORDER MANAGEMENT". The Customer object

has properties such as CustomerId,CustomerName, Address and Phone and methods such as AddCustomer(),DeleteCustomer() and EditCustomer(). Orderobject includes OrderId, CustomerId, CustomerName, ProductId, Amount and OrderDate as its property and CreateOrder() and EditOrder(OrderId) as its behavior. A customer can place one or many orders. Further there are SpecialOrder object andNormalOrder object which have same methods CreateOrder(), confirm(), close(), dispatch() whereas the SpecialOrder object alsohas one property named SpecialDiscount. Special Order and Normal Order objects are both kinds of order and are thereforeshown to inherit from order entity. Moreover the system also has Product entity having attributes such as ProductId, ProductPrice, ProductType and methods such as AddProduct(), ModifyProduct() and SelectProduct(ProductId). Stock object has properties likeProductId, Quality and ShopNo and behavior such as addStock(), ModifyStock(ProductId) and slectStockItem(ProductId). Note that specialOrder and NormalOrder has 1 or more product whereas stock has many products.
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Q5]
Star group of hotels wants to have an online booking system. The customer can book conference hall or room by paying the advance amount either by credit /debit card. While booking he/she has to enter the following details
If the booking is for conference hall ,the customer needs to provide date and time along with approximate number of person attending event,food details,sound system arrangement required for event.
If the booking is for room,the booking should contain number of days room is needed and from which date.The hotel provides additional room services for extra charge as laundry,snacks\lunch\dinner,phone call book
The bill will calculated accordingly when customer leaves room.