

**PROJECT DESCRIPTION**

Each team will apply the systems analysis and design methods, techniques, and tools to the analysis, design, and prototype development of a moderate complexity information systems (IS) application. The four major tasks to be completed in this project are:

- Select a moderately complex IS application.
- Analyze the requirements of the application system that has to be developed.
- Design the application system.
- Document a final project report that summarizes the overall system.

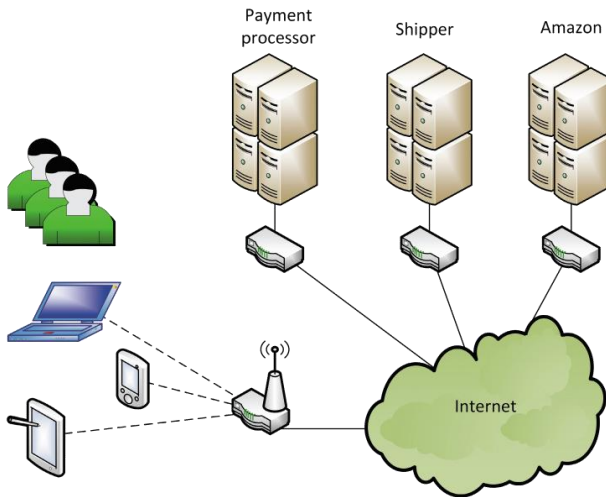
The project report should include:

1. A cover page provides your team name and names of your team members and studentIDs.
2. Vision Document: An introduction that highlights the key aspects of your project (description of the systems, problem, solution, and benefits). This should be about two typewritten pages (12-point double-spaced).
3. The Project report should include the analysis and design diagrams (See next section). Remember to label your diagrams and all relevant components.
4. The report must contain the screenshots of all the diagrams and GUI mockups accompanied with their appropriate descriptions.
5. The application prototype section must show the screen captures from the storyboard development and should be well organized to show a clear path of execution of the application and the major functionality of your application. Brief explanations of the screen images are very helpful for understanding of the screens.
6. A conclusion that summarizes the report and identifies areas for further development of the project. This should not exceed one page.

The Project report should include the below diagrams as a minimum requirement:

**1. Proposed Application Architecture**

Example:



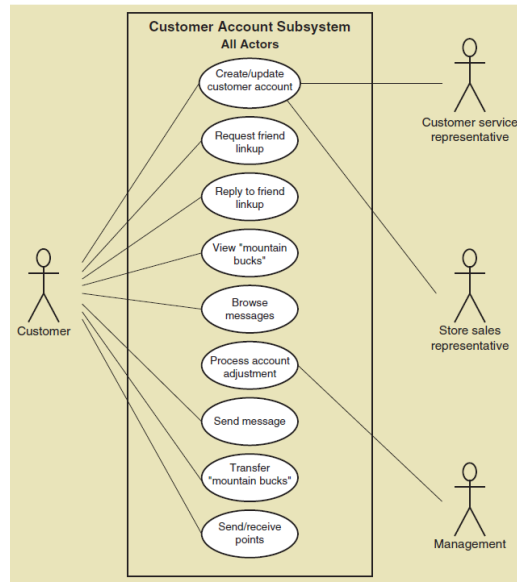
## 2. Brief Use Case Descriptions table – *for the entire application*

Example:

Use case	Brief use case description
Create customer account	User/actor enters new customer account data, and the system assigns account number, creates a customer record, and creates an account record.
Look up customer	User/actor enters customer account number, and the system retrieves and displays customer and account data.
Process account adjustment	User/actor enters order number, and the system retrieves customer and order data; actor enters adjustment amount, and the system creates a transaction record for the adjustment.

## 3. Use Case Diagram – *for the entire application*

Example:



#### 4. CRUD Matrix

Example:

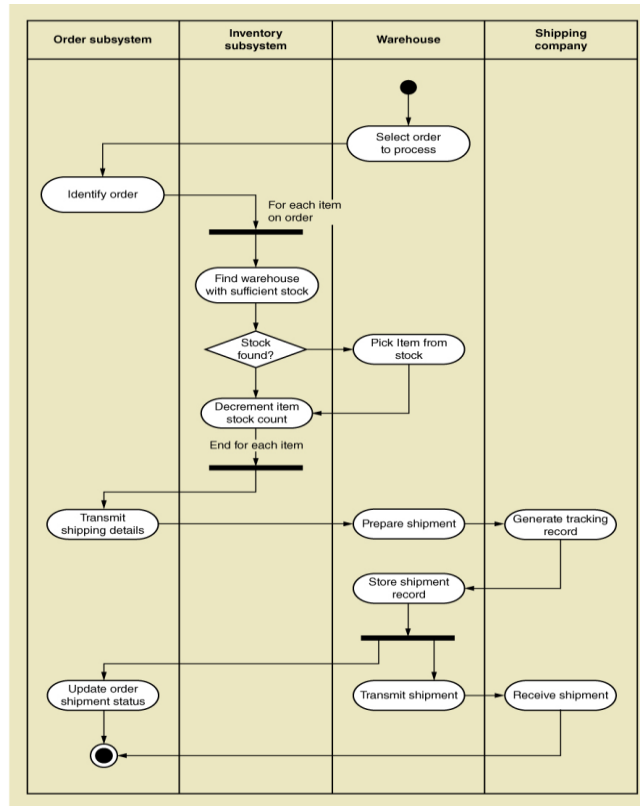
Use case vs. entity/domain class	Customer	Account	Sale	Adjustment
Create customer account	C	C		
Look up customer	R	R		
Produce customer usage report	R	R	R	
Process account adjustment	R	U	R	C
Update customer account	UD (archive)	UD (archive)		

#### 5. Activity Diagram – *for five use cases*

Example:

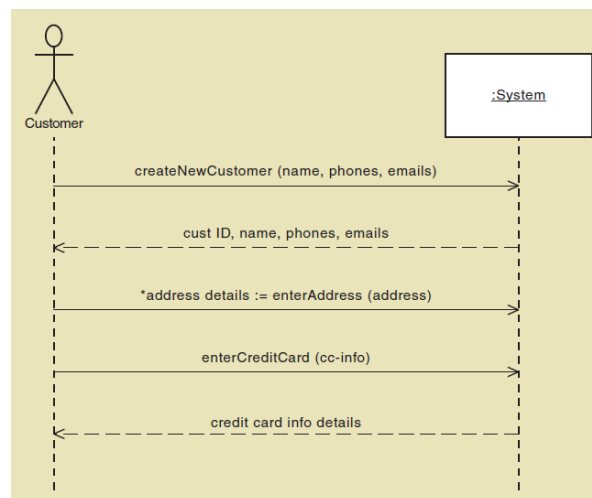
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## Systems Analysis and Design



### 6. System Sequence Diagram (SSD) for five use cases (the same use cases chosen for activity diagrams)

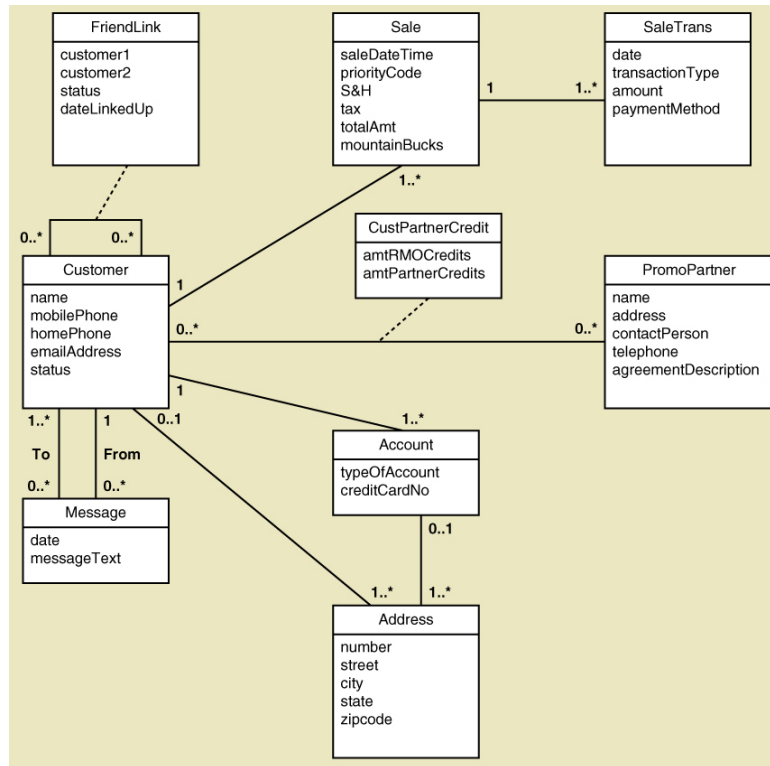
Example:



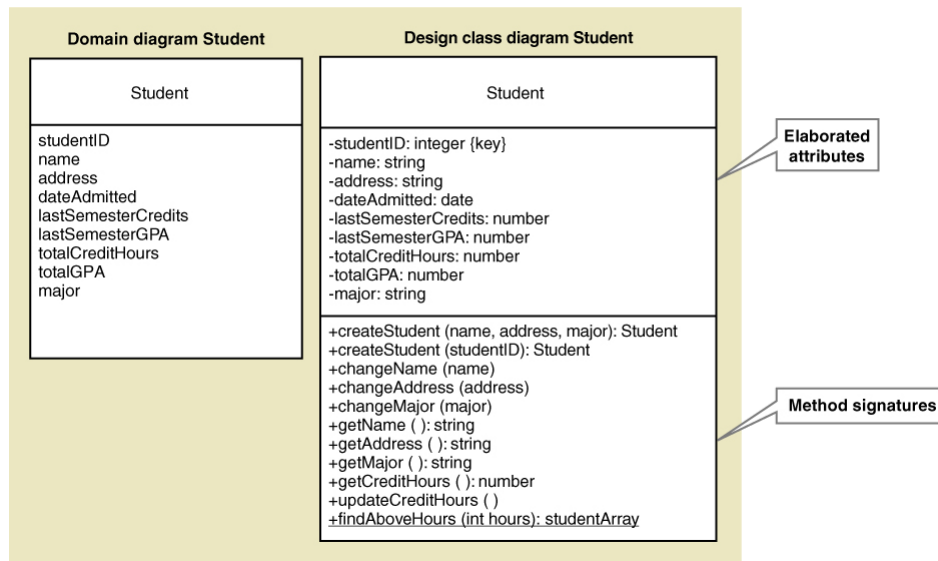
### 7. Use Case Scenario for five use case (the same use cases chosen for activity diagrams)

**8. Domain Model Class Diagram – *for the entire application***

Example:

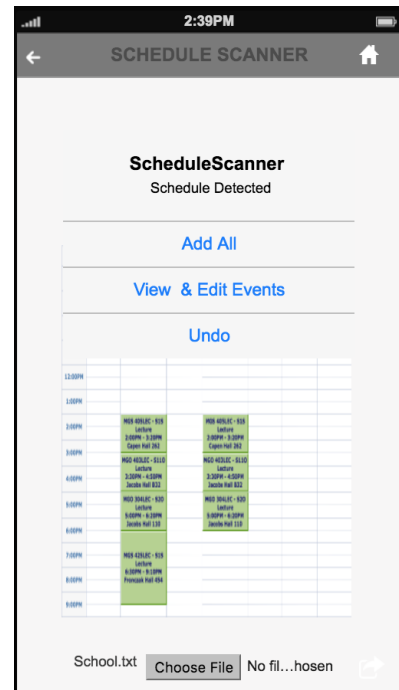
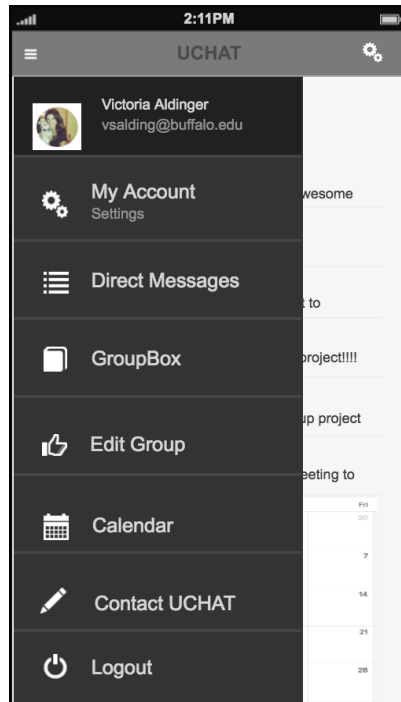
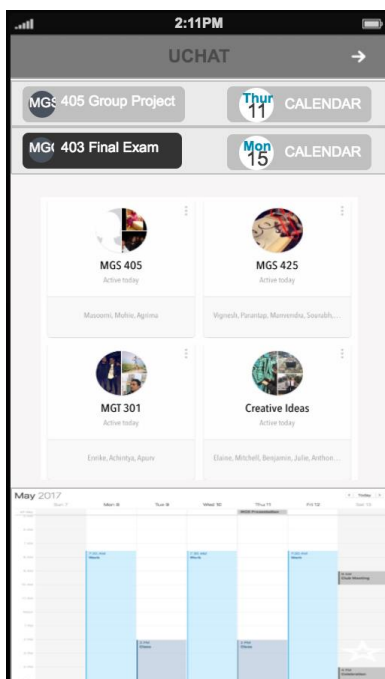


**9. Design Class Diagram with elaborated attributes and methods (for the entire application)**



## 10. Graphical User Interface – Running Prototype

Examples:



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**Systems Analysis and Design**

