SYS466 Winter 2017
Lab 2
Due: January 20, 2017 (at the end of class)
Introduction to Use Cases using StarUML

Objective: To generate a Use Case Diagram and System Level Sequence Diagram for a given use case scenario.

Scenario: Pay Bill
Precondition: Customer is logged into the online bill payment system.

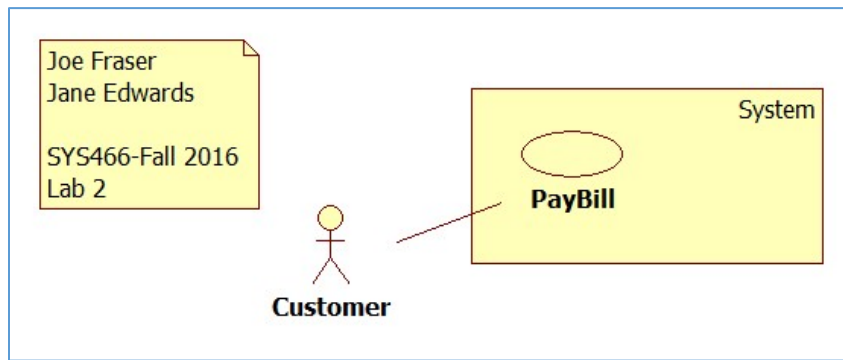| Actor (Customer)	System
Requests to pay bills.	Displays a list of bills.
Selects gas bill.	Displays amount entry window and a dropdown list of the customer's accounts.
Enters amount and selects the account.	Creates a payment transaction for the bill and debits the customer's account by the amount entered.

Step 1: Create a StarUML Project

- Open StarUML and create a new project using the *Default Approach*
- Locate the *Use Case Model*. (It is found using the *Model Explorer* on right hand side of the screen)

Step 2: Add Relevant Stakeholders

- Create the actor that you need for the diagram. Move back to the *Model Explorer*. Right click on the *Use Case Model* and select *Add->Actor* to add the actor that you need. Rename the actor by selecting it in the Model Explorer and modifying the *Name* property to "Customer" in the General Properties section

Step 3: Create A Use Case Diagram using StarUML

- Right click on the *Use Case Model*, select *Add Diagram->Use Case Diagram*.
- Rename the diagram to "Lab 2 – Use Case Diagram" by selecting the diagram in the *Model Explore*r and clicking on the *Properties* Tab.
- Drag the "Customer" actor from the *Use Case Model* into the diagram
- Click on the *Toolbox* Tab to add a use case to the diagram. Add an association between the "Customer" actor and the newly added use case. Add a system boundary around the use case to depict that the Actor is not part of the system.
- Put your name on your work! On the left hand side of the screen, locate the *Annotation Tab*. Click on the tab and add a note to the left hand corner of your work. Insert your names inside the note.

Step 4: Create A System Sequence Diagram using StarUML

- Right click on the *Analysis Model* in *Model Explorer* on the right side of the window, select *Add Diagram->Sequence Diagram*.
- At this point, the diagram properties should be found close to the bottom of the right hand side of your screen.
  - Rename the diagram "Lab 2 – Use Case Diagram"
  - Set the *MessageSignature* property to "Name Only"
  - Check the *ShowActivation* checkbox
- To add the actor, click and drag the chosen actor from the *Use Case Model* in the *Model Explorer*
- Use the *Object* icon to create the System object. Change the name to System using properties at the bottom left hand corner of the screen.
- Create messages using the *Stimulus* icon. Arguments can be added to a selected message by editing the Details section of the *Properties* tab. Create return messages using the *Stimulus* icon. Change the *ActionKind* property of the object to RETURN in order to set dotted line using properties.
- Note that there is no return for the final message. Returns are typically only shown when there is data coming back and in this case the scenario does not specify data coming back.
- Put your name on your work! On the left hand side of the screen, locate the *Annotation Tab*. Click on the tab and add a note to the left hand corner of your work. Insert your names inside the note.
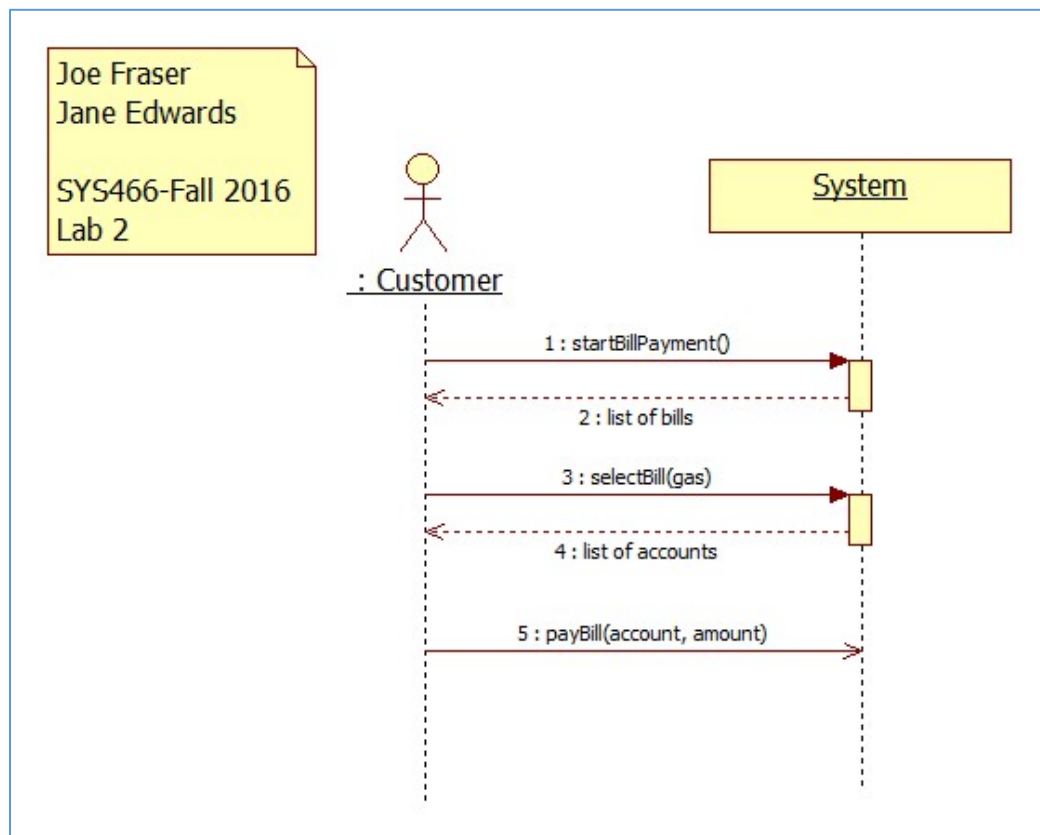
Figure 1: Example SSD

When you are done, save this UML model as Group##Lab2.uml (where ## is your group number) and upload to Blackboard.