SYS466 Summer 2020
Professor: Tevin Apenteng
Lab 2: Domain Modeling – Class Diagram
Due: Please refer to Blackboard for the due date

Objective: Build a model of our real-world domain. During the class, we talked about this model being represented by a *UML class diagram* as well as class attributes.

This exercise is to be done individually. Please ensure that your name and student number in the lab work. Your work will be graded as 1 or 0. Submissions that demonstrate a reasonable amount of thought will receive full marks.

Submission is to be done via Blackboard. Email submissions WILL NOT be accepted.

SYS466 LAB 2 : Class Diagram Basics

- This is an individual lab.
- Using StarUML, create the required diagrams as per the instructions in this lab, then post the model you created to Blackboard. The name of your file should be Lab2-FirstName-LastName.uml
- You must show me your work after you submit it on Blackboard before you leave.

Setting up StarUML:

- When opening a new model select the default configuration (use case model, analysis model, etc)
- In the <<Analysis Model>> create 3 new models. Name them Exercise 1, Exercise 2 and Exercise 3
    - To do this: Right click on Analysis Model, select Add, select Model. Do this 3 times, one for each of exercise 1, 2, and 3.
- To add a class diagram to a model: Right click on the model (e.g. Exercise 1), select Add Diagram, then Class Diagram.

For this Lab:

- You will be creating 3 class diagrams, each in its own model in the ANALYSIS MODEL section of the lab 2 uml file
- For the scenario described in each exercise below create a class diagram showing classes and attributes. DO NOT SHOW ASSOCIATIONS.
- Create the class diagram into the appropriate model in the ANALYSIS MODEL of the uml file

Exercise 1: Golf Tournament Scenario

	Actor (Tournament Coordinator)	System
1	Enters date, name of tournament and maximum number of golfers.	Creates the tournament and displays an entry area for 10 golfers with spaces for name, contact information—email address and/or phone number, handicap.
2	Enters golfer information and requests to add.	Checks that maximum number of golfers has not been exceeded and adds the golfers to the tournament. Displays an entry area for more golfers.
3	Repeats step 2 until done	Displays and prints a list of golfers registered for the tournament.

Exercise 2: Purchase tickets for a Bus Tour Scenario

	Actor (online customer)	System
1	Chooses a bus tour from a list of tours	Displays tour name, originating station and destination station and tour description. Also displays a list of dates on which the tour is offered. Displays tour price for each of the dates (summer tours are more expensive than spring and fall tours).
2	Selects one of the dates and requests to book a ticket for the tour	Displays an entry form for name, address, phone and email.
3	Enters name, address, phone, email.	Displays total price and all tour information for confirmation.
4	Confirms	Transfers to paypal and completes the payment transaction. Emails a ticket to the traveller.

Exercise 3: Purchase tickets to the performance of a show Scenario

	Actor (online customer)	System
1		Displays a list of all shows (names and descriptions) for the theatre.
2	Chooses a show	Lists all performance dates for the show.
3	Chooses a performance date	Displays a list of theatre sections with prices for each section.
4	Chooses a section.	Searches for available seats based on the section and performance date selected. Displays available seats—shows row and seat number for each.
5	Chooses seats.	Displays total price and requests confirmation.
6	Confirms	Creates a purchase transaction and transfers control to the PAYPAL system. PAYPAL processes the request and returns control to the system being designed. The system displays ticket information for the purchased seats along with the total cost and a link to the pdf ticket file which the patron can print. The system also sends a confirmation email to the patron containing the link.