SYS466 Fall 2019
Assignment 2: Tournament System
Professor: Tevin Apenteng
Due: Refer to Blackboard (No Extensions. Deadline is firm)

Background:

The tournament system allows tournament hosts to set up tournaments such as tennis tournaments, track and field tournaments, and so on. It allows attendees to purchase entrance passes, parking tags, meals and Uber passes.

Entry to each tournament is carefully controlled via entrance passes. Each pass allows entry to specific events on specific days. There are several overlapping events scheduled for each day so attendees must specify which events are to be added to the pass even though there is one cost for the whole day.

Worker attendees and VIP attendees get discounts on entrance passes. VIP attendees also get parking tags (one per day) included in the price of the pass which allows parking in any lot for all pass days.

Workers and VIP attendees must have a photo included with the pass when purchasing it.

 Workers and regular attendees must pay for parking

To Do:
This assignment has 3 parts. In each part you will create a separate model in the StarUML <<analysis model>> as per the instructions in each part. You will also create one class diagram in each model.

This assignment is a group assignment. It is graded out of 90 and is worth 5% of your final grade.

Please note: if you use the same classes in different models DO NOT duplicate classes. Drag them from one model into another.

Part 1: Pass Purchase and Parking (55 marks)

For this part of the assignment you will create a model in the Analysis Model called Part1. Using all of the scenarios in this part of the assignment create one class diagram in Part 1.

Login to purchase an entry pass
Precondition: attendee has already registered and has a valid userid, password and email address.

Registered Attendee	System
Enter userid and password	Displays attendee name, attendee role – either VIP user (a tournament official) or a Worker (someone employed to work at the tournament) or a regular Attendee. Lists the names of all available tournaments.
Enters Tournament Name	Displays tournament description and lists each day of the tournament showing cost for the day (includes all events on that day), and events for each day. For each event a name and start time are displayed.

Purchase VIP Entrance Pass
Precondition: VIP Attendee has executed the "Login to purchase an entry pass" scenario successfully.

VIP	System
Selects a day for purchase.	Displays details of events for the day including start and end times, detailed description and venue name.
Selects events to attend	Records the events selected and accumulates the cost.
Repeats the above two steps until done.	Creates a VIP entrance pass which includes a pass barcode and all events selected. Creates a parking tag for each of the days selected (all VIP's get parking tags included in the cost of the pass). The tags allow entry to all lots. Creates an invoice for the total cost minus the discount that the VIP role is assigned.
Confirms purchase and initiates camera app	Takes a photo of the actor and adds the resulting photo file to the VIP pass. Saves the VIP pass and parking tags into persistent storage and transfers to the payment system. Emails the actor the VIP user the file for the VIP pass and parking tags so that the user can print them.

Purchase Worker Entrance Pass
Precondition: Worker Attendee has executed the "Login to purchase an entry pass" scenario successfully.

Worker	System
Selects a day for purchase.	Displays details of events for the day including start and end times, detailed description and venue name.
Selects events to attend	Records the events selected and accumulates the cost.
Repeats the above two steps until done.	Creates a worker entrance pass which includes an entrance pass barcode and all events selected. Displays the selected days and asks the actor if parking is required for any of the days. Shows all

Worker	System
	available lots with cost per day for parking for each lot. (Costs may differ between lots).
Selects days for parking and lot for each day.	Creates a parking tag for each date for the selected lot. Adds cost to accumulated total. Creates an invoice for the total cost minus the discount that the worker role is assigned.
Confirms purchase and initiates camera app.	Takes a photo of the worker and adds the resulting photo file to the worker entrance pass. Saves the worker entrance pass and parking tags into persistent storage and transfers to the payment system. Emails the actor the pdf file for the pass and all parking tags so that the actor can print them.

Purchase Regular Entrance Pass
Precondition: Regular Attendee has executed the "Login to purchase an entry pass" scenario successfully.

Regular Attendee	System
Selects a day for purchase.	Displays details of events for the day including start and end times, detailed description and venue name.
Selects events to attend	Records the events selected and accumulates the cost.
Repeats the above two steps until done.	Creates a regular entrance pass which includes an entrance pass barcode and all events selected. Displays the selected days and asks the actor if parking is required for any of the days. Shows all available lots with cost per day for parking for each lot. (Costs may differ between lots).
Selects days for parking and lot for each day.	Creates a parking tag for each date for the selected lot. Adds cost to accumulated total. Creates an invoice for the total cost (there are no discounts for regular users).
Confirms	Saves the pass and parking tags into persistent storage and transfers to the payment system. Emails the actor the pdf file for the pass and all parking tags so that the actor can print them.

Enter Parking

Attendee	System
Scans parking tag at parking entrance	Checks tag is for day and lot being entered. It is; adds 1 to number of vehicles entered for lot. Checks to see if capacity has been exceeded, it has not; allows entry. Creates a log including date and time, lot and parking tag.

View Parking Logs

Conference Admin	System
Enters date and requests to see all parking logs for that date	Reads all logs for that date from the database, sorts them by lot id and date and time and displays Lot id, lot name, date, time, and parking tag ID for each.

PART 2: Meal Purchase (15 marks)

For this part of the assignment you will create a model in the Analysis Model called Part2. Using the following scenario create one class diagram in Part2.

Tournament attendees can purchase meals in the cafeterias within the tournament grounds. The cafeterias are self-serve with self-checkouts. They contain only pre-packaged meal items.

Purchase Lunch

Tournament Attendee	System
Picks up packaged meal items from the cafeteria and heads to the self- checkout.	
Scans tournament entrance pass to start the sale	Validates pass and makes sure it is for the current day (it is). Creates sale for the date and time and sets total to zero.
Scans item and enters quantity (default is one)	Displays category name of item scanned (each item belongs to one category—sample categories are soup, sandwich, etc.). Also displays item name and individual cost and extended cost (=individual cost * quantity); also running total for the sale.
Continues until all items are scanned	Saves the sale, including all sale item information and displays total and requests payment.
Taps credit card	Validates card information with the bank (it's valid), creates a credit card transaction, sends it to the bank, saves the sale to the database and prints out a receipt for the sale showing details for each sale item.

PART 3 Uber Pass Purchase (20 marks)

For this part of the assignment you will create a model in the Analysis Model called Part3. Using all the scenarios in this section create one class diagram in Part3.

Tournament attendees can purchase Uber passes which transport them from specific locations to target locations within the tournament grounds via Uber vehicles. Uber passes can be purchased at a number of uber machines around the tournament venues and in preset locations outside of the tournament grounds (e.g. Park and Ride, major malls, etc.) To purchase an Uber pass tournament attendees must first prove they are attendees by tapping their passes on the machine – the machine will read the pass barcode to determine that the pass is valid for that specific day.

The tournament has reached a deal with Uber so that users will be charged a flat rate of $5 per ride.

Lost Uber passes can be replaced by going to a tournament office and having a tournament administrator print out replacement Uber passes.

Purchase UberPass at UberPass Machine:

Tournament Attendee	System
1. Taps entry pass.	Validates pass by reading bar code; it is valid for the current date. Shows all days pass is valid (past days are not displayed).
2. Selects day.	Shows Uber pickup and drop off locations.
3. Selects a pickup and drop off location and requests to purchase Uber pass.	Creates Uber pass for that date and for the pickup/drop off locations, assigns an Uber pass ID and adds flat rate ($5) to the total.
4. Repeats step 3 until all Uber passes for that day have been purchased.	Displays days pass is valid (past days are not displayed).
5. Repeats step 2,3, and 4 until done.	Saves all Uber passes purchased. Assigns a sale id to the Uber sale and displays sale id, sale date, total sale amount, and number of Uber passes purchased. Requests payment.
6. Taps credit card	Validates card information with the bank (it's valid). Creates a credit card transaction and sends it to the bank. Saves the Uber sale, including all Uber passes, to the database and prints out all Uber passes purchased. Each Uber pass shows Uber pass ID, pickup location, dropoff location and entrance pass ID and attendee name. Also prints out a receipt for the Uber sale showing sale date, sale id and sale total.

Replace Lost Pass by going to Tournament Office:

Tournament Admin	System
Takes entrance pass from attendee and taps it.	Reads the entrance pass barcode and determines it is valid. Shows any reprint logs – there are none. (Only one reprint allowed per Uber pass). Shows all Uber passes associated with the current and future days for the attendee.
Selects Uber passes to print	Prints all selected passes. Creates a reprint log for each pass printed.

Submission Instructions

Your group should submit the following to Blackboard as a group. Be sure to include your names in the contents of the documents.

1. A SINGLE UML FILE….in the format **Group##_Ass2.uml**. (for example Group02_Ass2.uml)

NOTE: Submit the file requested in the format specified. DO NOT HAND IN COMPRESSED FILES IN ZIP OR RAR FORMAT!! DO NOT SUBMIT THIS ASSIGNMENT VIA EMAIL!!