**Assignment 2**

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**Report**

**Analysis:**

Before I began with everything I took a look at the model provided for us and I tried to figure out how everything worked and how everything was connected. I decided to implement Validate Ticket, Check time, rate and departure zone against arrival zone before opening gate, Enter arrival station and Enter arrival time into the Gate JSP(Which I created) because I think that how it works in a real life scenario. When someone goes to the gate they have to check which station they have to arrive at, at what time and if their ticket is valid so they can go through the gate.

Issue Peak ticket, Issue Off peak ticket, Enter Departure Time I decided to put in ticket configuration (which is done by the ticketMachineJSP) because they should be printed on the ticket. And the ticket configuration is done by the ticket machine.

Create Ticket Machine and Update Ticket Machine I decided to create in the station JSP because that is where the remove ticket machine option was provided for us. So, I thought it would be more convenient if all the ticket machine options are at the same place. Also, ticket machines are being monitored and are usually stationed at the station in real life scenario.

**Diagrams:**

I created the use case diagrams first with all the functions that the model has and it’s supposed to have with as many actors as I could think of. I think the actors are about 11. I number each diagram. I have assigned the functions/processes to each actor but I have not connected them in specific order because I do not think that it is necessary to have one. For example, create/remove/update ticket machine does not have to be in this order. Each of this functions could be done on its own and if needed. After that I created robustness diagrams explaining how the actors link to the boundary objects(in this case the JSPs) and I linked all the control objects to their respective JSPs(Basically to the JSPs that they have been implemented in) and then I linked all the DAOs to the functions they interact with. I did a test plan for the use case diagrams, each of them is numbered. The test plan explains what it is supposed to happened if everything works properly. I could not create a data flow diagram. I look at examples online. However, I did not manage to think of a way to create one for this project.

**Code:**

I managed to write code that validates the ticket, allows the user to enter departure time, issue peak and off peak ticket, creates ticket machine and assigns it to a station, allow the user to enter arrival station and arrival time. The code to remove the ticket machine was already provided for us. I could not get the code that I wrote to work. The parts of the code that I have not completed are ticket creation, choose from station list, check time, rate and departure zone against arrival zone before opening gate. I tried to improve the ticket model by adding zone count to count the zones which the ticket has been scanned through and expiry date. However, I could not manage to implement these into the JSP as a ticket creation method.

**Testing:**

I have not done any testing because I did not create any new methods other than the ones provided for us by the week 10 model. I created methods in the JSP files to complete the TO DO list. However, I could not complete them, and I could not load the page for some reason. Every time I tried, it gave me an error.