**ITMD 411 SP ’17- Final Project Specs- worth 200 points!**

Objective: IT help desk contacts you for help in creating a help desk trouble ticket system. Your tasks will incorporate CRUD database techniques. Check the following site for SQL help for using SQL CRUD statements using Java! -<http://www.tutorialspoint.com/jdbc>

**Creativity tasks**:

-Decide what database table(s)/fields do you need for this. Tables at minimum should include a **login** table, a **trouble ticket** table *and* a table of your choice to complete your domain.

-Design a **GUI** for which will include the following options

-Create or start a ticket

-Close a ticket

-View a ticket(s) –allow for user to view a particular ticket or multiple tickets

-Update a ticket

-Delete a ticket(s) –allow for user to delete a particular ticket or multiple tickets

\*Note- authentication should be included in your logic to allow an admin full viewing / CRUD rights to the system. All other users will just be allowed creation rights. Creation rights include adding a ticket, filling in a brief description and including a priority choice for the ticket as either High, Medium or Low.

**Runtime tasks**: (Your program should perform the following tasks)

-Input (open up) at least 5 trouble ticket cases. 3 of the tickets should be high priority. Include needed data to complete a starter ticket.

-Show a view of a particular ticket created (include all pertinent fields in a JTable)

-Show a view of all tickets created (include all pertinent fields in a JTable)

-Allow for a closing of at least one ticket. Show pop up message stating that the ticket was closed as follows:

“**Ticket #xxxxxxxxxx has been closed**” where **xxxxxxxxxx** represents the ticket number closed

-Update at least one trouble ticket by changing the current description to ‘WH WIFI PROBLEM’

-Delete at least one ticket. Make sure to display a pop up to ask user the following:

‘**Are you sure you want to delete this ticket #xxxxxxxxxx?**’ where **xxxxxxxxxx** represents the ticket number in question

**Snapshot tasks**: For complete credit, include snapshots in MS Word of the following:

1. A view of a ticket created

2. A view of all 5 tickets created

3. The trouble ticket pop up message showing that a ticket number was closed

4. Show the view of the updated ticket bearing the description ‘WH WIFI PROBLEM’

5. The pop up message showing the ticket number requested to be deleted

6. Final snapshot of a view of all your trouble ticket records presented in a JTable with each of your table fields displayed

7. A report of information to the console with the following information:

Show the duration of time all open tickets (by ticket id and description) have existed.

Show the ratio of closed tickets to open tickets.

Show ticket(s) that are currently opened with a high priority.

**Documentation tasks**:

Include into BB all your code from any file(s) you’ve created for this project including java docs, your Doc file, a readme file and a separate **executable** **jar** file of your project.

If working in a group (aka one other student), include as a title page each group member participant by name in your Doc file. More effort will be expected to be shown from the finished product from the team if you go this route!

Include in your Word Doc file also a Table of Contents, an opening description summarizing your application, its uses, functionality and any basic design principles of your application.

\*\*\*When creating ANY of your table(s) name, you MUST include your **first initial** followed by the **first four letters** of your **last name** followed by whatever you wish to name the remaining of your table by. Create your table(s) and run your queries in Java using the the following specs:

database name=**tickets**,username=**fp411**,password=**411**

url=**www.papademas.net**

\*\*\*Make USE of appropriate *methods* in your code to make your program as efficient as possible to work the CRUD functionality given the tasks above.

\*\*\*Read thru these specs *thoroughly* to understand the needs of your program, then devise your database table(s) with appropriate fields to ensure all the functionality of your program is covered and where it will be easy to query the database to perform the desired CRUD operations.