Izaaz Kothawala & Mufid Bhavnagri

ITMD 411

Final Project

Trouble Ticket System

This project is to create a program that creates tickets for users with different priorities and managing all the tickets. For the project we used GUI, Jframes, Jpanels, and other options, this program is also connected to the data base live so that data can be entered to the database and the same data can be retrieved. For the data transfer to the database we used prepared statements because that way the data would not interfere with the code and the other way around Prepared statements also help eliminate SQL injection, but we only started using them after research so they are not applicated everywhere.
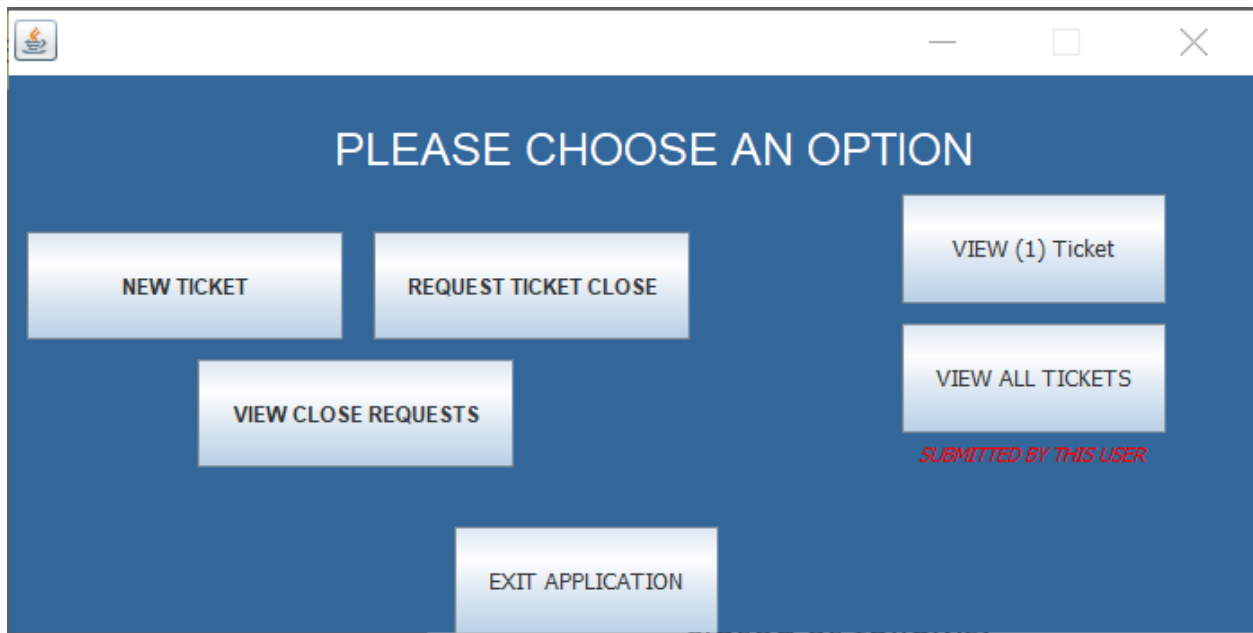
We focused a whole lot on user experience and ease of use for both administrators and user groups hence our GUI design. It is set to be simple and everything is laid out in button format.

We also have data management on the backend including an auto backup every time the program is exited from the admin panel since that's the only panel changes can be made from to tickets. This is also forced on the backend through programming as the admin (user) cannot simply hit the "X" button to close the interface as they must use exit application.
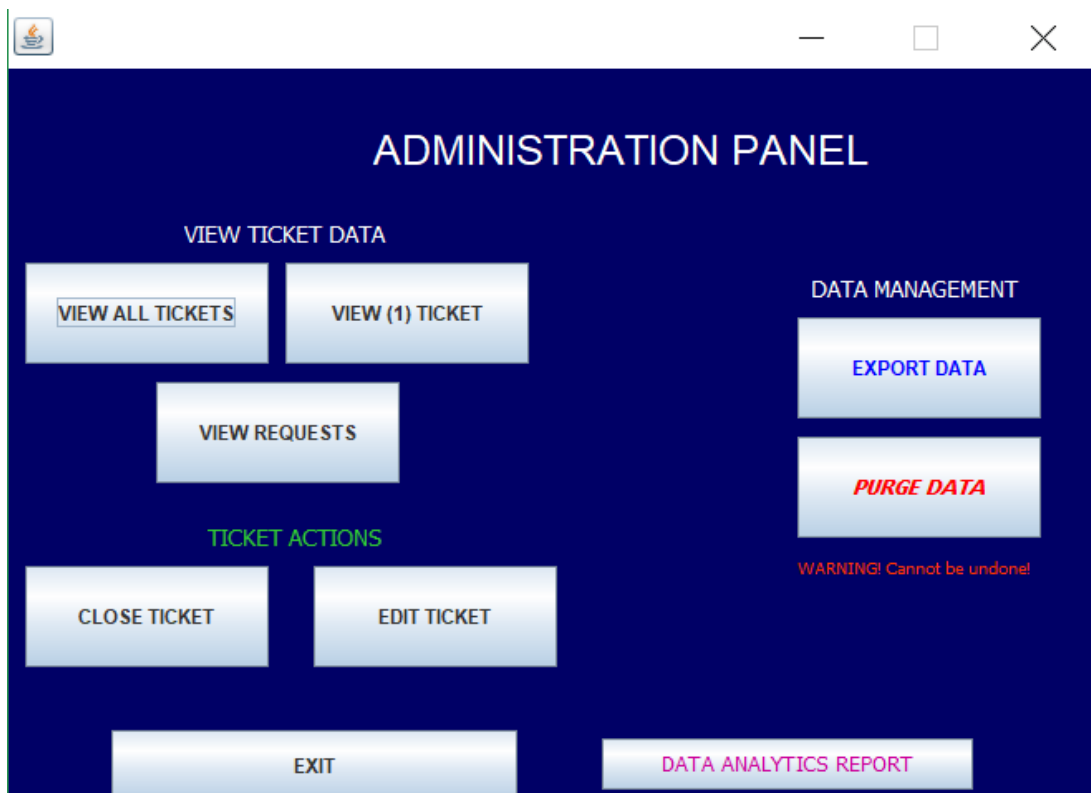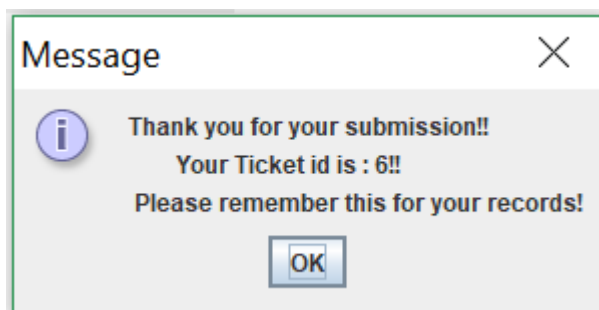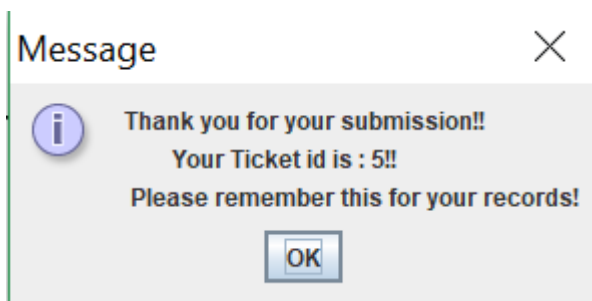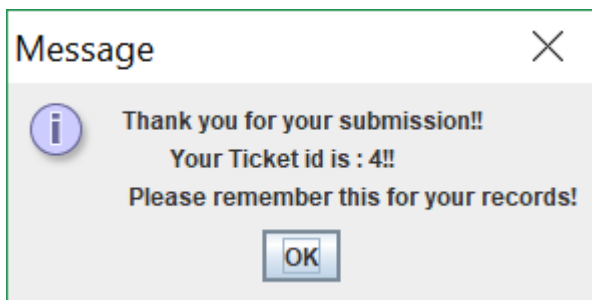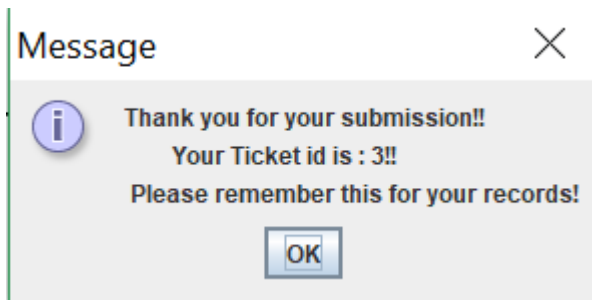
Screen shots:
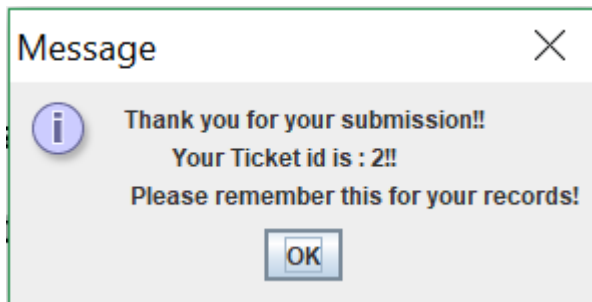
View of user panel:
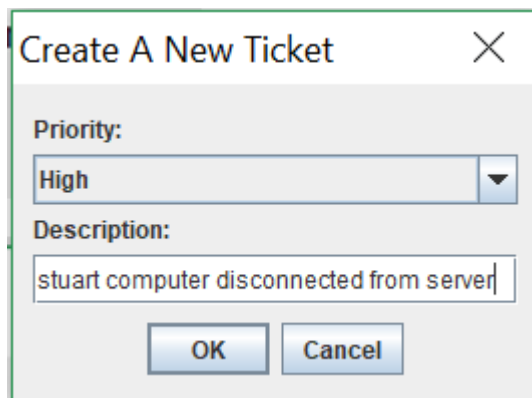
View of admin panel:

1. New ticket creation:

Message ✕

(i) Thank you for your submission!!
Your Ticket id is : 2!!
Please remember this for your records!

OK

Message ✕

(i) Thank you for your submission!!
Your Ticket id is : 3!!
Please remember this for your records!

OK

Message ✕

(i) Thank you for your submission!!
Your Ticket id is : 4!!
Please remember this for your records!

OK

Message ✕

(i) Thank you for your submission!!
Your Ticket id is : 5!!
Please remember this for your records!

OK

Message ✕

(i) Thank you for your submission!!
Your Ticket id is : 6!!
Please remember this for your records!

OK

Window for ticket options and description

Create A New Ticket ✕

Priority:

High	▼

Description:

stuart computer disconnected from server

OK   Cancel

Create A New Ticket ✕

Priority:

URGENT	▼

Description:

MTCC computers not starting

OK   Cancel

Message ✕

(i)   Thank you for your submission!!
        Your Ticket id is : 7!!
    Please remember this for your records!

OK

1. Viewing single ticket window:

User input

Input ✕

?   Please Enter the Ticket Number You wish to View:
     7

OK   Cancel

Output

Message ✕

ⓘ Priority: URGENT

Ticket Number:7

Description: MTCC computers not starting

Status: OPEN

Initiated on: 2017-05-03 18:13:54.0

OK
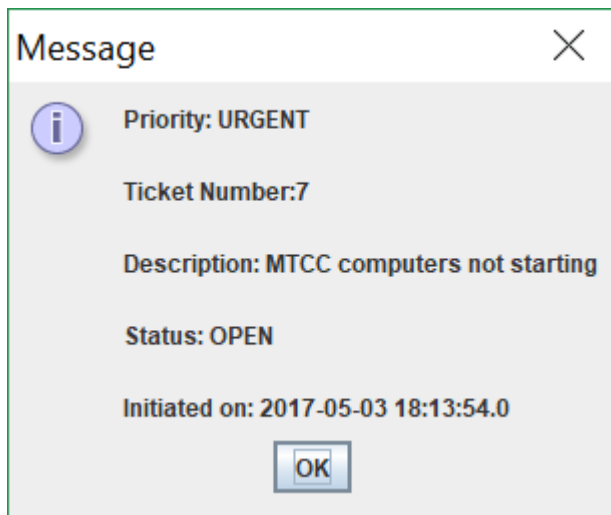
2. View of all tickets in user mode:

Displaying All Submitted Tickets by: user — □ ✕

ticket_id	ticket_name	ticket_description	priority	status	create_date	Close_Date
2	user	printer out	Low	OPEN	2017-05-03 18:00:16.0	
3	user	no wifi connection	High	OPEN	2017-05-03 18:03:00.0	
4	user	no internet access with connected wifi	High	OPEN	2017-05-03 18:04:06.0	
5	user	MTCC printer ink out	Medium	OPEN	2017-05-03 18:05:11.0	
6	user	stuart computer disconnected from server	High	OPEN	2017-05-03 18:08:05.0	
7	user	MTCC computers not starting	URGENT	OPEN	2017-05-03 18:13:54.0	

3. Conformation of ticket closing with the duration it was open:

Message ✕

ⓘ Ticket# 2 CLOSED successfully.
Ticket Was Open for 0 Hours: 23 Minutes: 51 Seconds:

OK
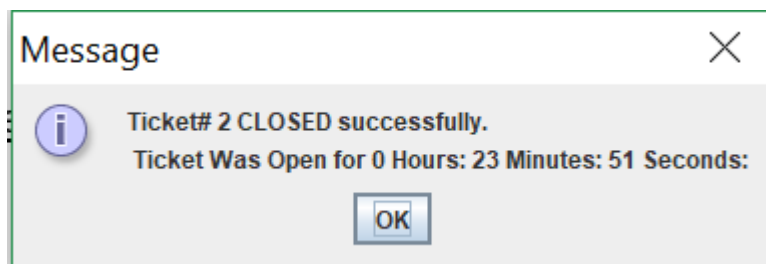
4. Editing a ticket:

Edit Ticket #: 3   ✕

Editing Ticket #: 3

Origin User ID: user | Created on 2017-05-03 18:03:00.0

Current Ticket Status: OPEN

Update the fields below as necessary:

Priority:

| High | ▼ |

Description:
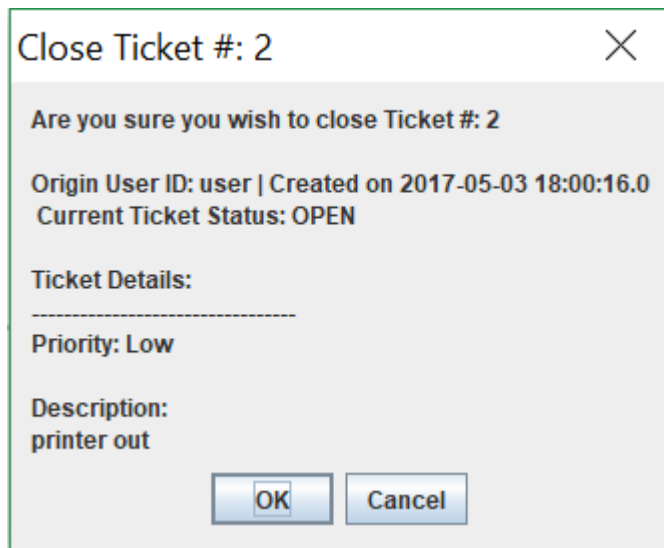
WH WIFI Problem

| OK | Cancel |

4. Editing successful dialogue box:

Message   ✕

(i)   Ticket# 3 updates successfully.

| OK |

5. Request for closing a ticket:

Close Ticket #: 2　　　　　　　　　✕

Are you sure you wish to close Ticket #: 2

Origin User ID: user | Created on 2017-05-03 18:00:16.0
 Current Ticket Status: OPEN

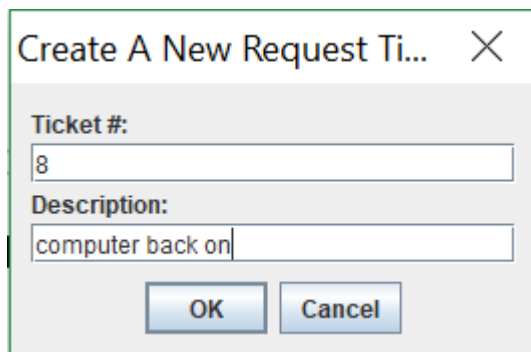Ticket Details:

Priority: Low

Description:
printer out

　　　　　　[OK]　[Cancel]

5. Request for closing a ticket:

Create A New Request Ti...　✕

Ticket #:
8
Description:
computer back on

　　　[OK]　[Cancel]

A view of all requests for closing a ticket

Displaying All Tickets:

req_id	user_name	ticket_id	description	completed
1	mufid	1	issue is resolved	YES
2	mufid	8	computer back on	

6. A view of all tickets in admin mode:

Displaying All Tickets:

ticket_id	ticket_name	ticket_description	priority	status	create_date	Close_Date
1	mufid	fdsaf	Low	CLOSED	2017-05-03 17:38:50.0	2017-05-03 17:44:48.0
2	user	printer out	Low	CLOSED	2017-05-03 18:00:16.0	2017-05-03 18:24:07.0
3	user	WH WIFI Problem	High	OPEN	2017-05-03 18:03:00.0	
4	user	no internet access with connected wifi	High	OPEN	2017-05-03 18:04:06.0	
5	user	MTCC printer ink out	Medium	OPEN	2017-05-03 18:05:11.0	
6	user	stuart computer disconnected from server	High	OPEN	2017-05-03 18:08:05.0	
7	user	MTCC computers not starting	URGENT	OPEN	2017-05-03 18:13:54.0	
8	mufid	something wrong in the computer	Medium	OPEN	2017-05-03 18:30:25.0	

7. Data analysis report:

```
      -------- [OPEN] TICKETS REPORT --------------
Ticket ID:    Submitted by:          Description:                        Duration of Ticket
3             user                   WH WIFI Problem                 0 Hours: 33 Minutes: 39 Seconds:
4             user                   no internet access with connected wifi 0 Hours: 32 Minutes: 33 Seconds:
5             user                   MTCC printer ink out            0 Hours: 31 Minutes: 28 Seconds:
6             user                   stuart computer disconnected from server 0 Hours: 28 Minutes: 34 Seconds:
7             user                   MTCC computers not starting     0 Hours: 22 Minutes: 45 Seconds:
8             mufid                  something wrong in the computer 0 Hours: 6 Minutes: 14 Seconds:

      ------------ Summary Report ---------------
Total # of Tickets: 8
# of OPEN tickets: | # Of Closed Tickets:
   6                        2

      -------- [OPEN] URGENT / HIGH PRIORITY TICKETS --------------
Ticket ID:    Submitted by:          Description:
3             user                   WH WIFI Problem
4             user                   no internet access with connected wifi
6             user                   stuart computer disconnected from server
7             user                   MTCC computers not starting
```
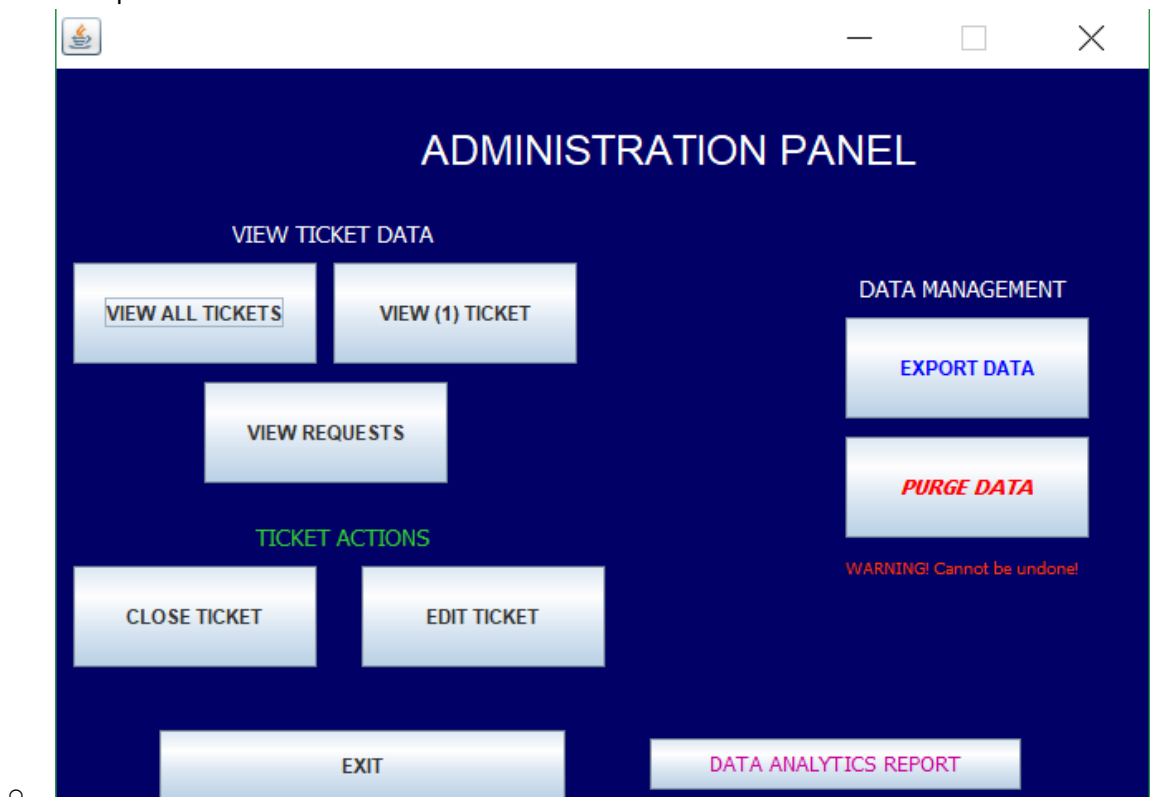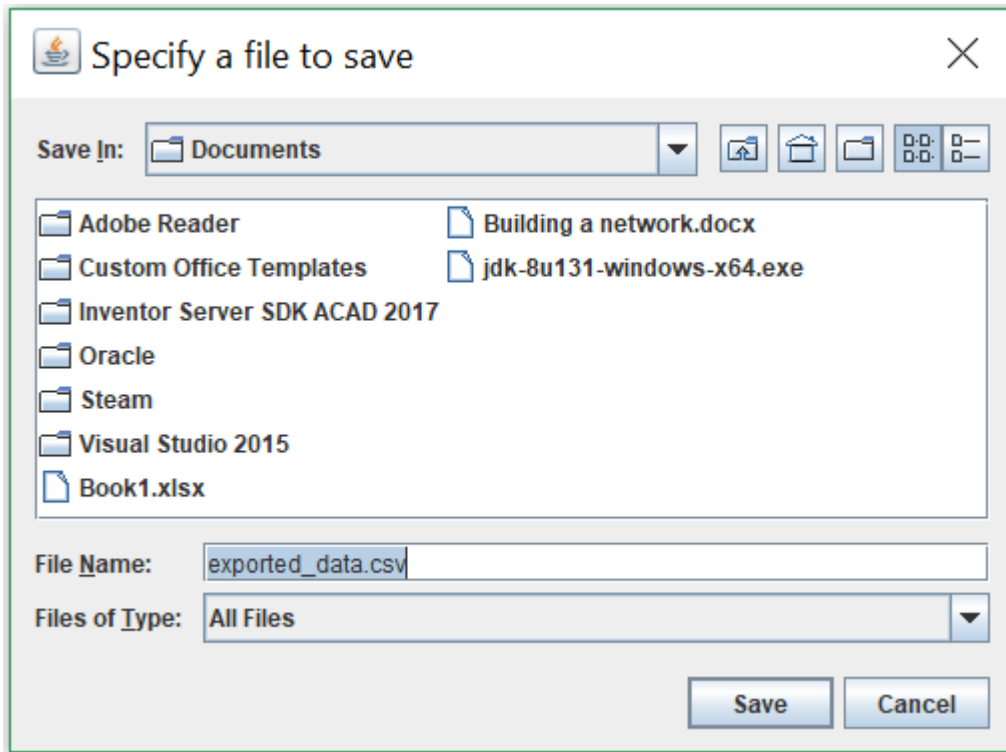
EXTRA CREDIT:

- We have added an extra feature that lets you back up the data. In the admin panel we have a button for export data:

   o

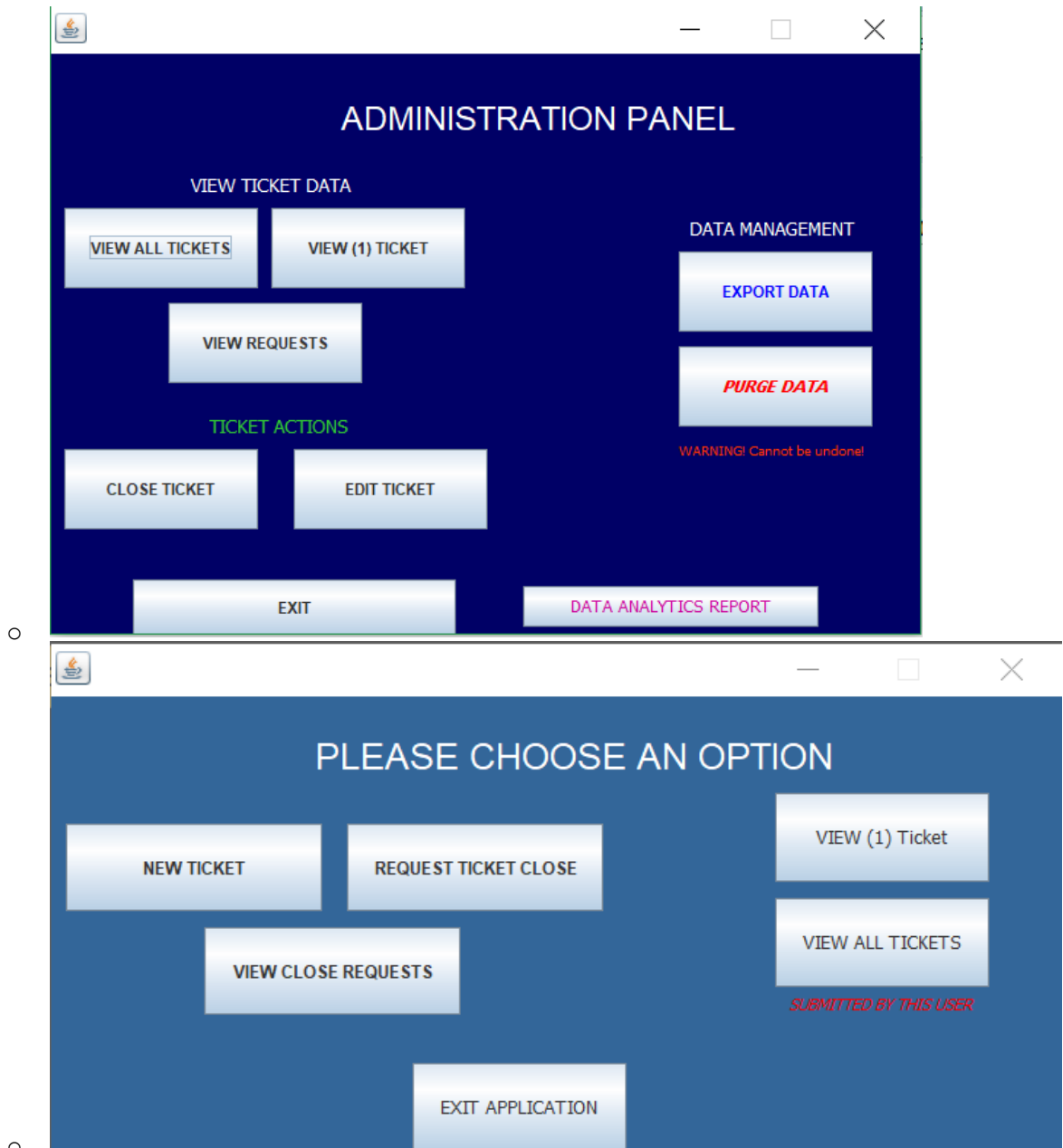- The exported data is in .csv format. For this option, we used a JFileChooser to select the location for the .csv file.

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- o This is the dialogue box that opens up when export data is clicked.

- We also focused on making the UI for the user / admin very fluid and user friendly and focused everything on easy to use large buttons. These buttons are for simple 1 operation and are not confusing for the user.

- o

ADMINISTRATION PANEL

VIEW TICKET DATA

VIEW ALL TICKETS   VIEW (1) TICKET

DATA MANAGEMENT

EXPORT DATA

VIEW REQUESTS

PURGE DATA

TICKET ACTIONS

WARNING! Cannot be undone!

CLOSE TICKET   EDIT TICKET

EXIT   DATA ANALYTICS REPORT

PLEASE CHOOSE AN OPTION

VIEW (1) Ticket

NEW TICKET   REQUEST TICKET CLOSE

VIEW ALL TICKETS

VIEW CLOSE REQUESTS

SUBMITTED BY THIS USER

EXIT APPLICATION

- o We decided not to use menu bar styles because it is easier for the user to see all options laid out with simple click operations

- For security, we also coded to only allow user groups to view tickets submitted by them… whether you use to view (1) ticket option or view all tickets in the user panel.
- Additionally, after a ticket is closed, we have an if-statement checker to prevent any further edits to the ticket
  - o This is more of a logical thing because it wouldn't make sense for a ticket to be edited once closed
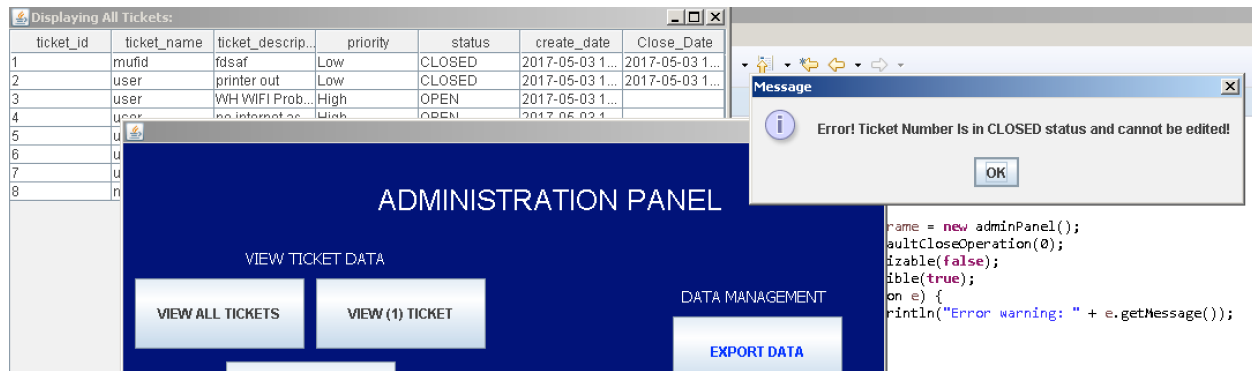
- We also added an auto DB backup to a CSV file whenever the exit button is hit from the administration panel. This allows changes to be tracked in a sense and reverse data when needed.
  - o It is set to an auto save path with auto file creation based on date/time stamp!!!