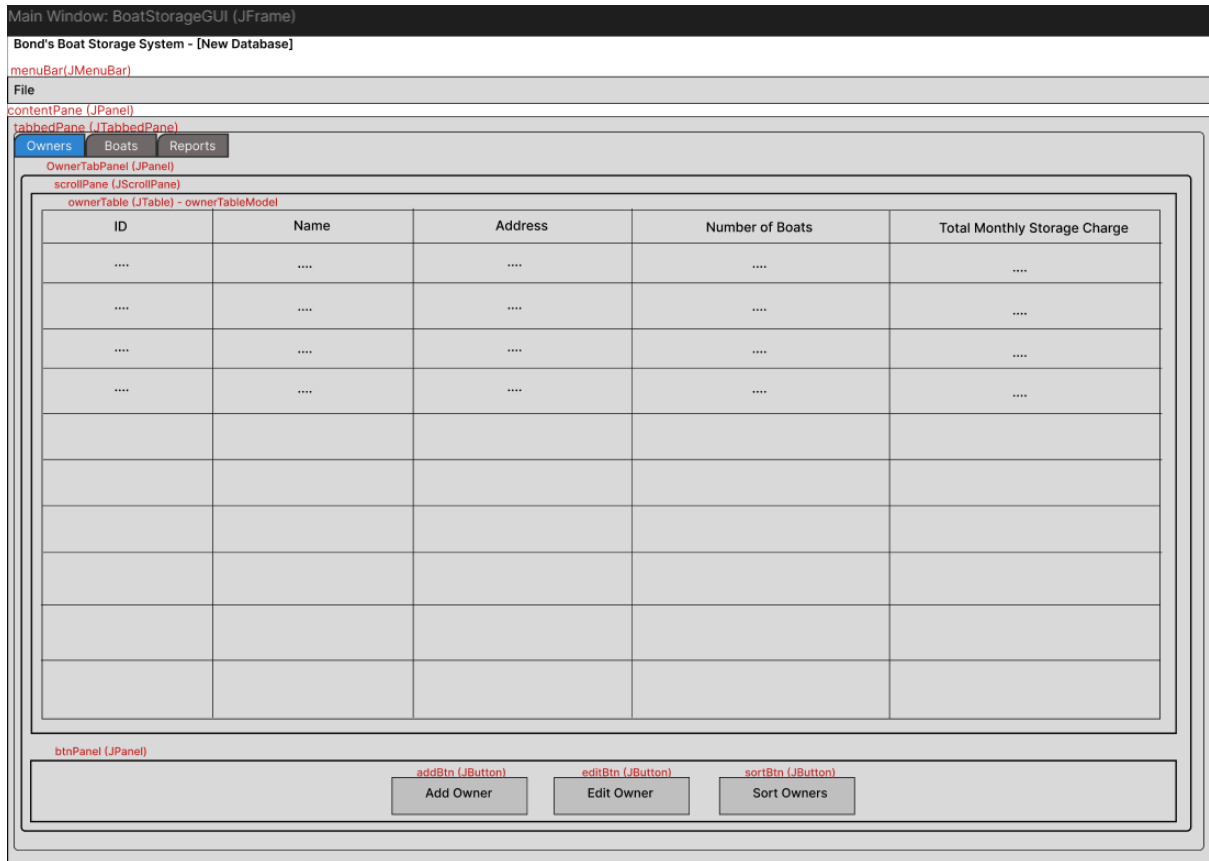


Table of Contents

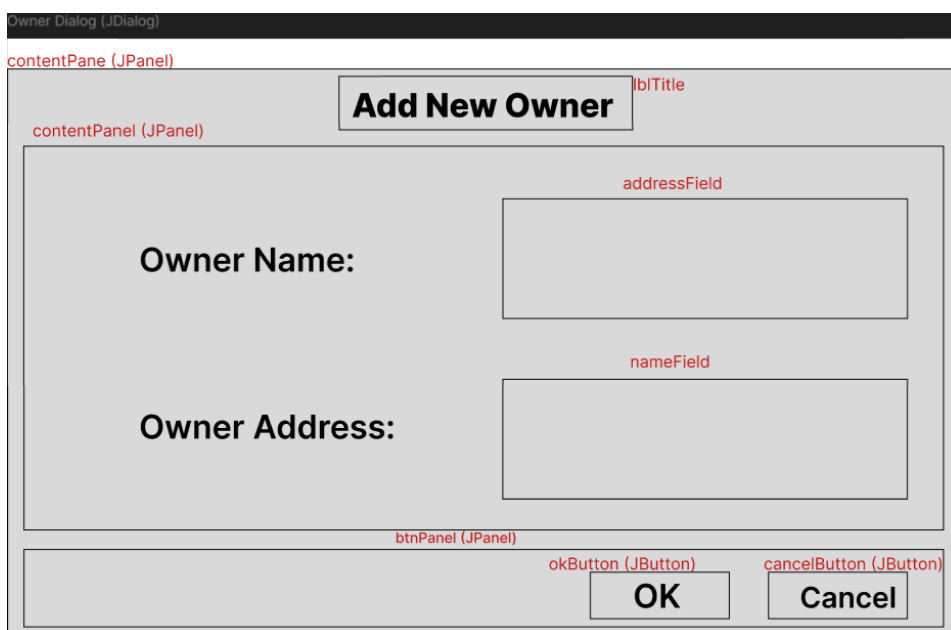
1.0	Sketch (User Interface Design).....	2
2.0	Class Diagram (OO Design)	10
3.0	Sample Output	11

1.0 Sketch (User Interface Design)

Owners Tab (will be shown when user click the “Owners” tab. It lists all the added owner’s info in TABLE):



Add Owner Dialog (that will be pop-up after user click the “Add Owner” button from Owners Tab):



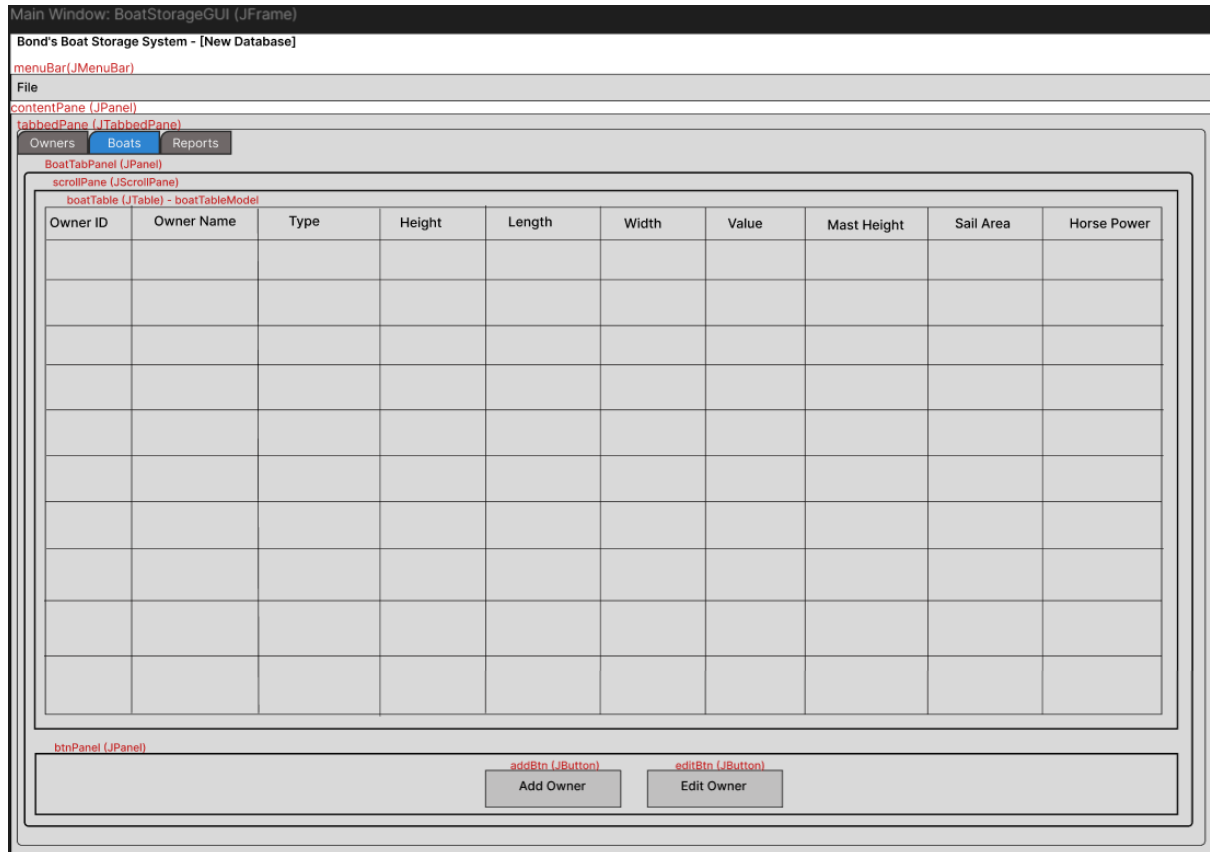
Edit Owner Dialog (that will be pop-up after user selected an owner row and click the “Edit Owner” button from Owners Tab):

The screenshot shows a dialog box titled "Owner Dialog (JDialog)". The main content area is labeled "contentPane (JPanel)". At the top, there is a title bar with the text "Edit Owner". Below the title bar, there is a label "Owner Name:" followed by a text field labeled "addressField" containing the text "XXXX". Below this, there is a label "Owner Address:" followed by a text field labeled "nameField" containing the text "XXXX". At the bottom, there is a button panel labeled "btnPanel (JPanel)" containing two buttons: "OK" and "Cancel".

Sort Owner Dialog (that will be pop-up after user click the “Sort Owners” button from Owners Tab):

The screenshot shows a dialog box titled "OwnerSortDialog (JOptionPane)". The main content area is labeled "contentPane (JPanel)". It contains a label "Sort Owners By:" followed by three buttons: "Original Order", "By Name", and "By Total Monthly Storage Charge".

Boats Tab (will be shown when user click the “Boats” tab. It lists all the added boat’s info in TABLE):



Add Boat Dialog (that will be pop-up after user click the “Add Boat” button from Boats Tab):

Boat Dialog (JDialog)

contentPane (JPanel)

libTitle

contentPane (JPanel)

Add New Boat

ownerCombo (JComboBox)

owner:

heightField

Boat Type:

typeCombo (JComboBox)

Height:

lengthField

Length:

widthField

Width:

valueField

Value:

mastHeightField

Mast Height (SailBoat):

sailAreaField

Sail Area (SailBoat):

horsePowerField

Horse Power (MotorBoat):

btnPanel (JPanel)

okButton (JButton)

cancelButton (JButton)

OK

Cancel

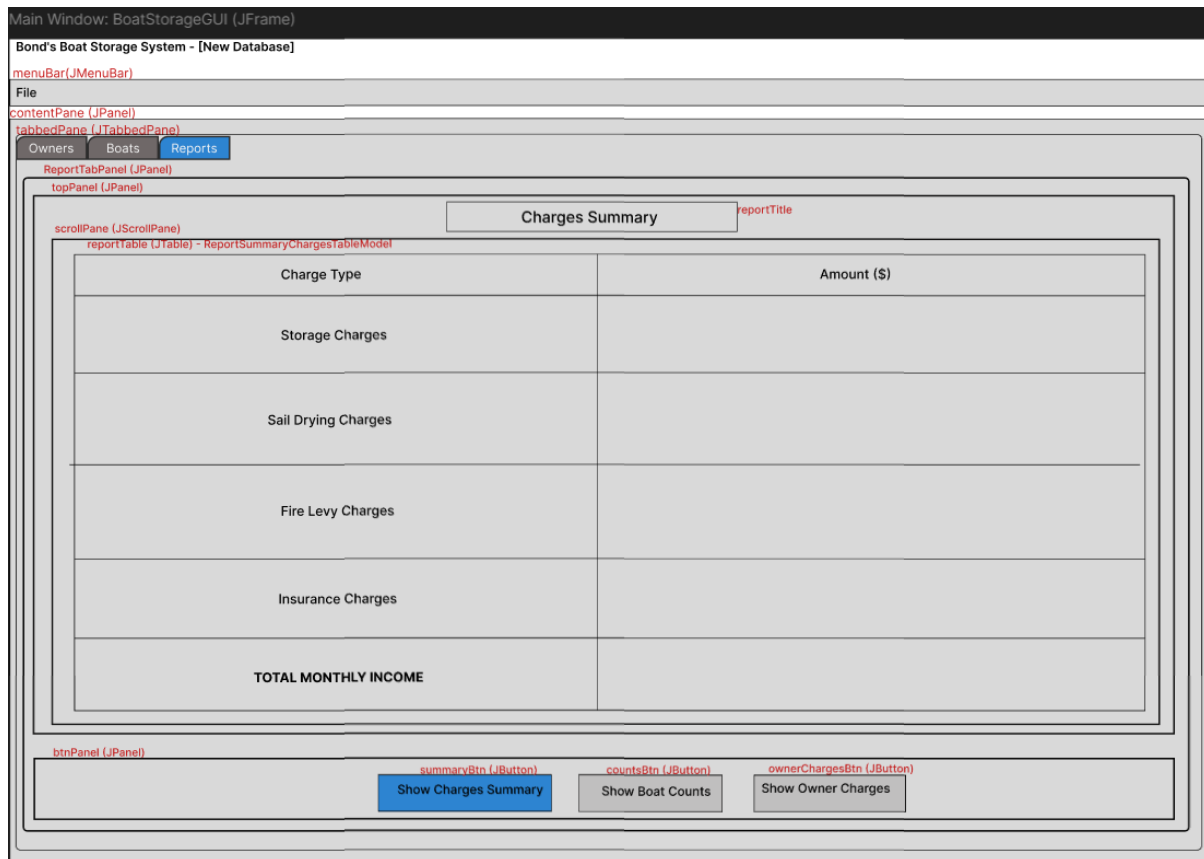
Edit Boat Dialog (that will be pop-up after user selected a boat row and click the “Edit Boat” button from Boats Tab):

The image shows a Java Swing dialog box titled "Boat Dialog (JDialog)". The main content area is titled "Edit Boat". It contains several input fields for editing boat information:

- Owner:** A JComboBox showing "XXXX".
- Boat Type:** A JComboBox showing "XXXX".
- Height:** A JTextField showing "XXXX".
- Length:** A JTextField showing "XXXX".
- Width:** A JTextField showing "XXXX".
- Value:** A JTextField showing "XXXX".
- Mast Height (SailBoat):** A JTextField showing "XXXX".
- Sail Area (SailBoat):** A JTextField showing "XXXX".
- Horse Power (MotorBoat):** An empty JTextField.

At the bottom of the dialog, there is a panel containing two buttons: "OK" and "Cancel".

Reports Tab (will be shown when user click the “Reports” tab. By default, it will show the “Show Charges Summary” table. If user click “Show Boat Counts”, it changes to “Show Boat Counts” table. If user click “Show Owner Charges”, it changes to the “Show Owner Charges” table.). If user click “Show Charges Summary”, it changes to the “Show Charges Summary” table.:



Main Window: BoatStorageGUI (JFrame)

Bond's Boat Storage System - [New Database]

menuBar(JMenuBar)

File

contentPane(JPanel)

tabbedPane(JTabbedPane)

Owners Boats Reports

ReportTabPanel(JPanel)

topPanel(JPanel)

Boat Counts

reportTitle

scrollPane(JScrollPane)

reportTable(JTable) - Report(CountsTableModel)

Boat Type	Count
Sail Boats	
Motor Boats	
TOTAL BOATS	

btnPanel(JPanel)

summaryBtn(JButton) countsBtn(JButton) ownerChargesBtn(JButton)

Show Charges Summary Show Boat Counts Show Owner Charges

Main Window: BoatStorageGUI (JFrame)

Bond's Boat Storage System - [New Database]

menuBar(JMenuBar)

File

contentPane(JPanel)

tabbedPane(JTabbedPane)

Owners Boats Reports

ReportTabPanel(JPanel)

topPanel(JPanel)

Charges for Owner: ...

reportTitle

scrollPane(JScrollPane)

reportTable(JTable) - Report(OwnerChargesTableModel)

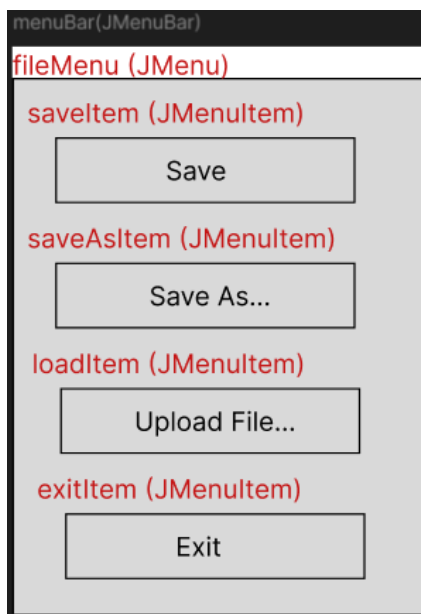
Boat Type	Charge Type	Amount (\$)
Boat 1: SailBoat	Storage Charge	
	Insurance Charge	
	Sail Drying Charge	
	Total Monthly Charge	
Boat 2: MotorBoat	Storage Charge	
	Insurance Charge	
	Fire Levy Charge	
	Total Monthly Charge	
TOTAL MONTHLY INCOME	TOTAL MONTHLY CHARGE FOR ALL BOATS	

btnPanel(JPanel)

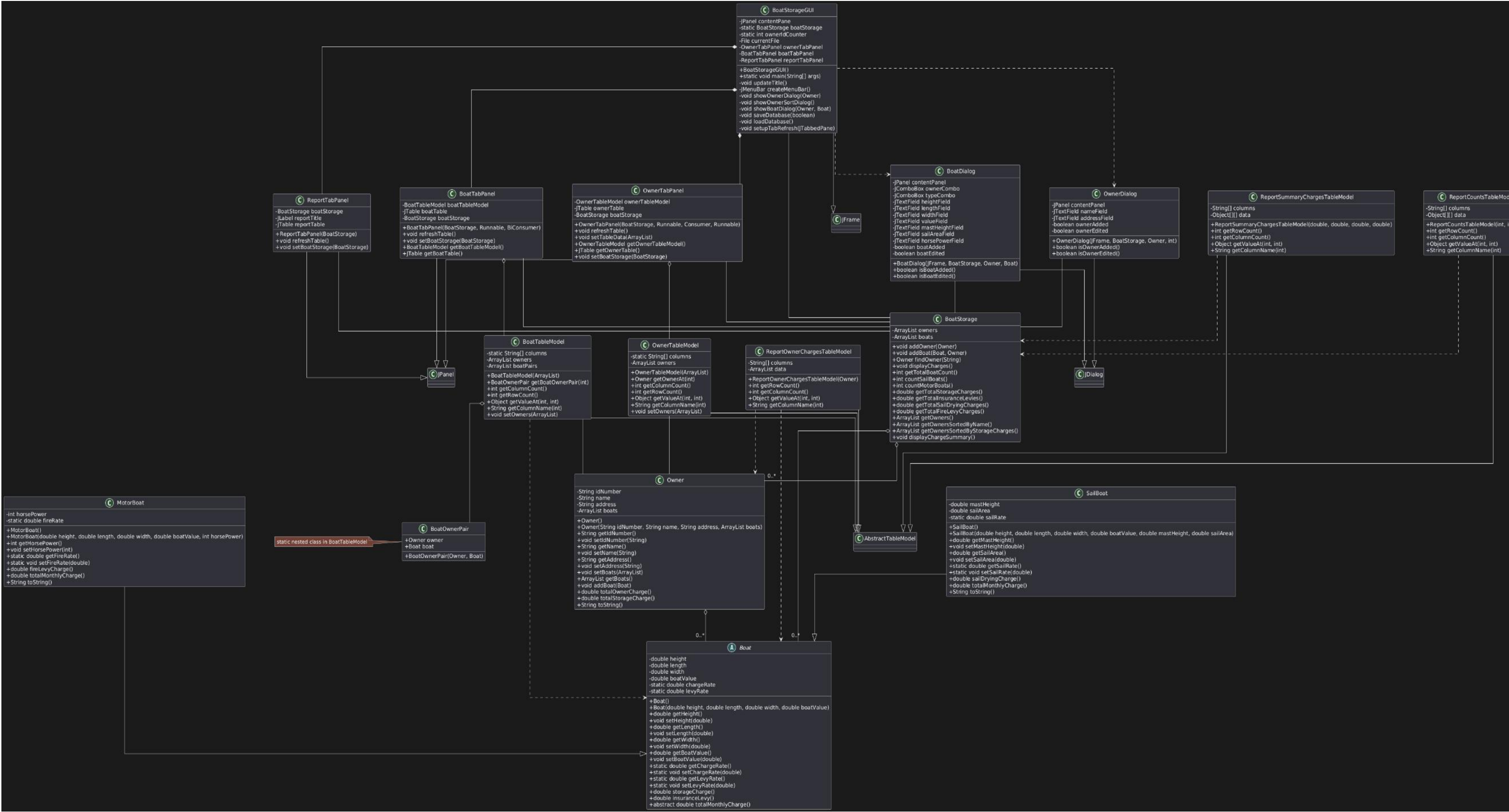
summaryBtn(JButton) countsBtn(JButton) ownerChargesBtn(JButton)

Show Charges Summary Show Boat Counts Show Owner Charges

File Menu Bar (will be shown up after the user clicks "File" from the top of the JFrame.)



2.0 Class Diagram (OO Design)

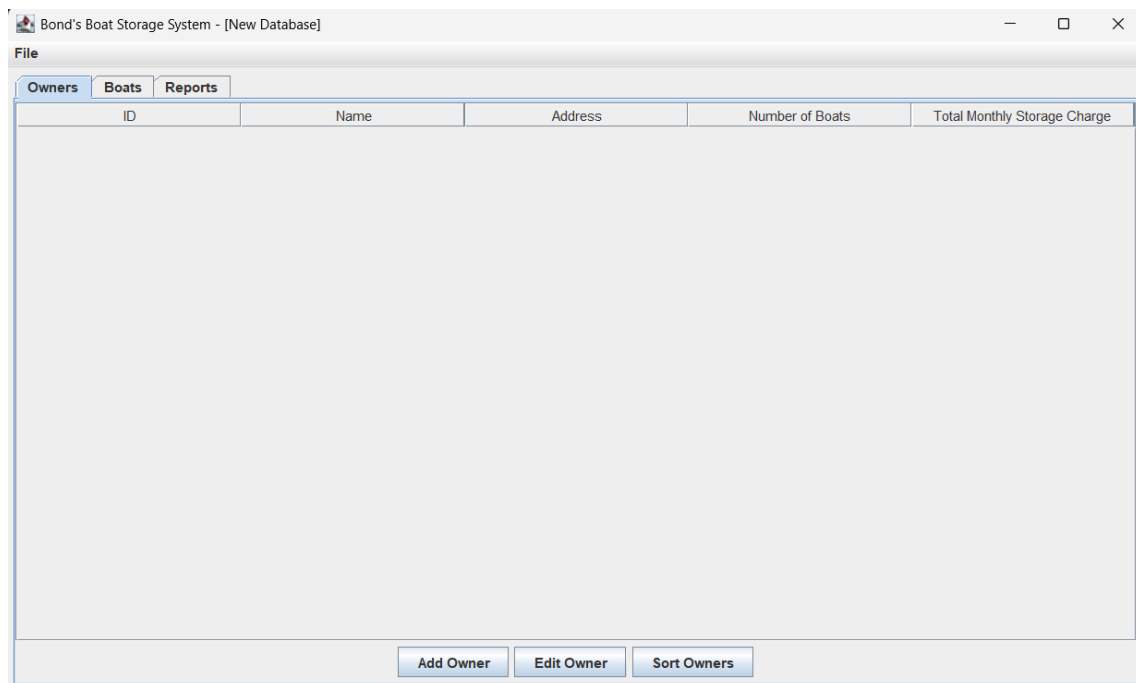


3.0 Sample Output

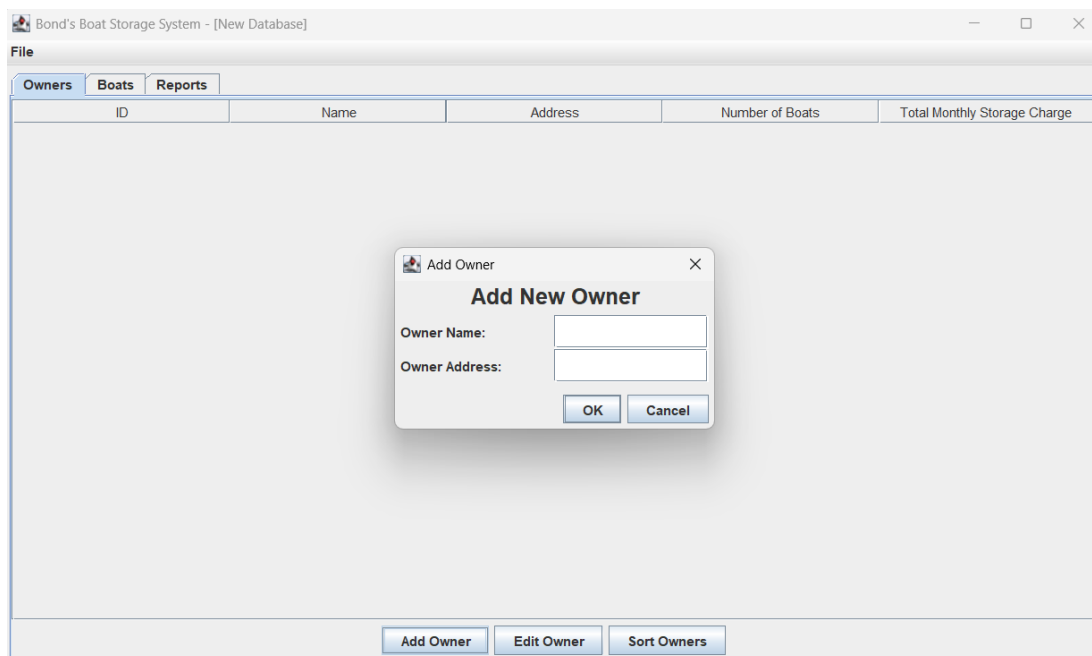
After starting the GUI program, a frame window titled “Bond’s Boat Storage System” will be shown. By default, the Owners tab is displayed first. Users can control the three tabs: Owners, Boats, and Reports.

Now, go through the interface at first look (without any data added yet):

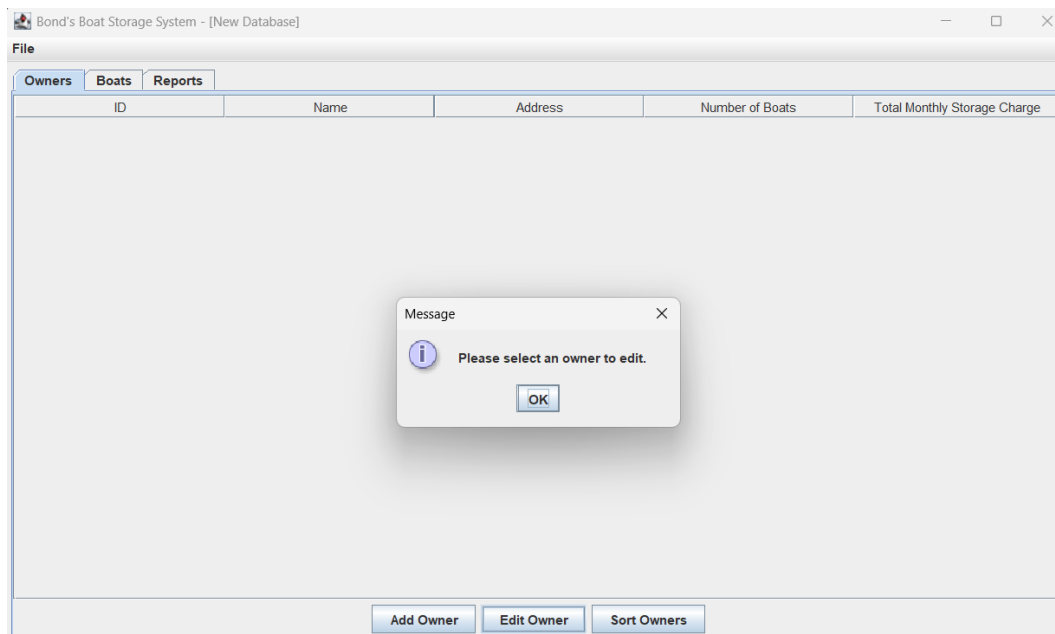
1. After clicking the “Owners” tab, the OwnerTabPanel will be shown, which includes a table listing all added owners’ information and a button panel with three buttons: “Add Owner”, “Edit Owner”, and “Sort Owner”.



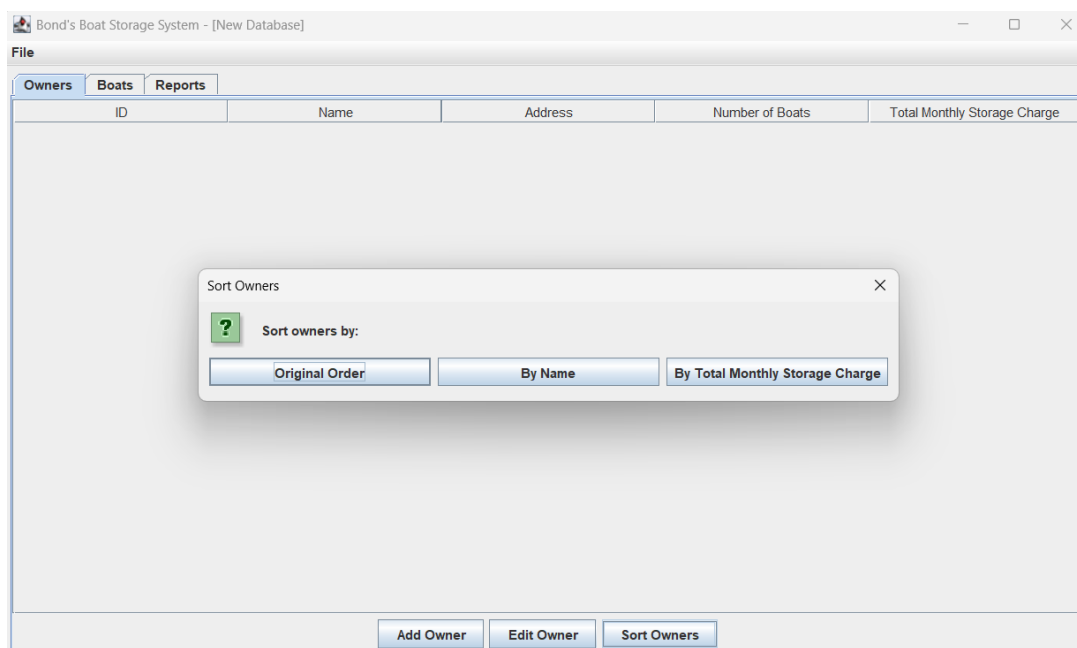
2. If you click the “Add Owner” button, an “Add Owner” dialog will pop up, allowing users to add a new owner to the system.



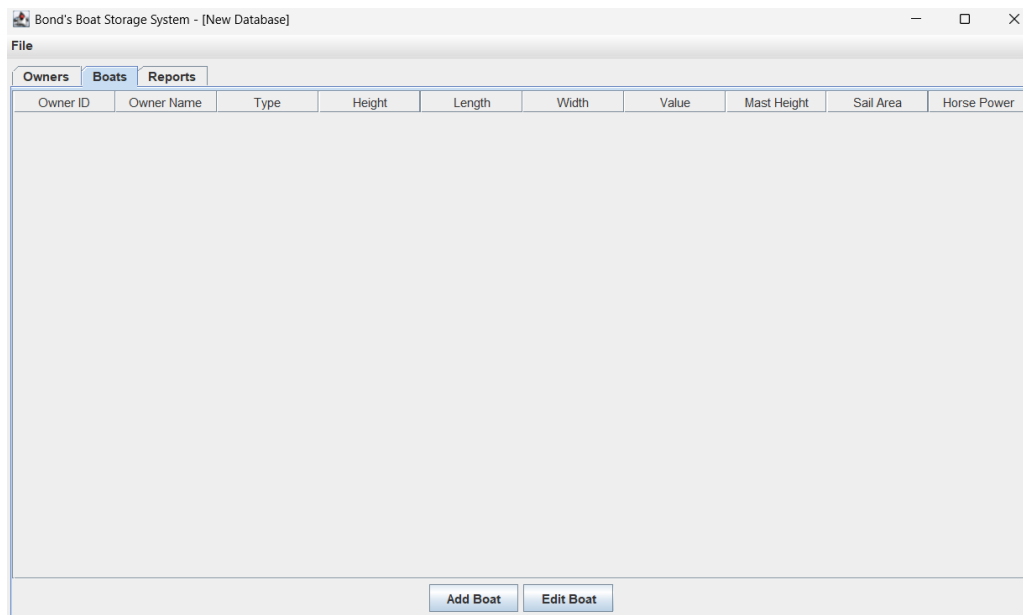
3. Since the owner table has no data yet, no owner row can be selected. If the user clicks the “Edit Owner” button, the error message “Please select an owner to edit” will pop up.



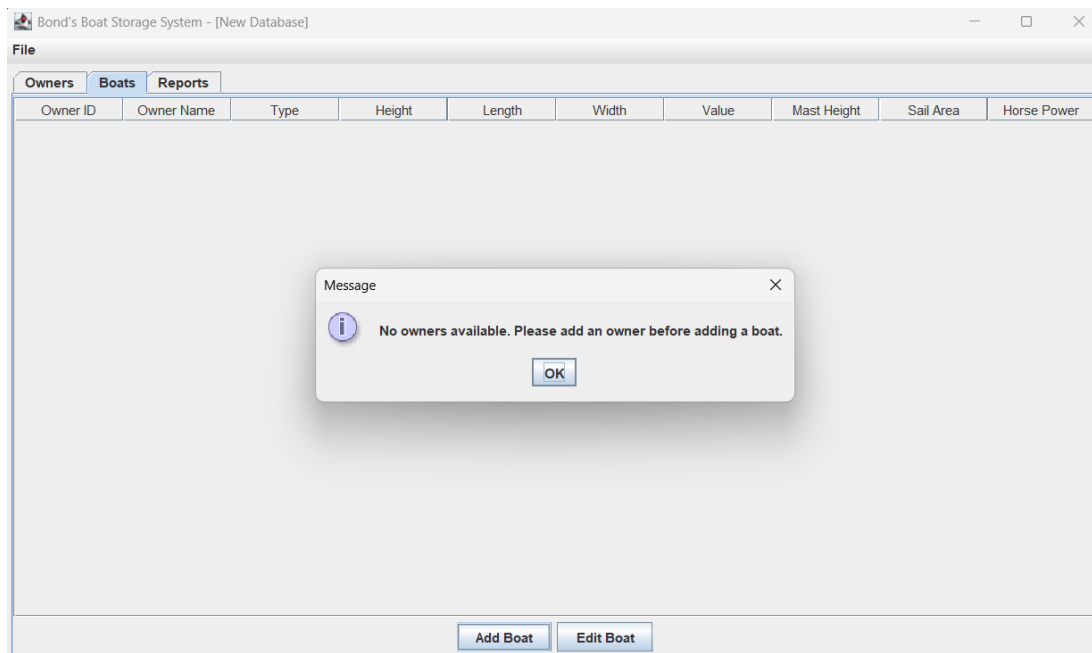
4. If the user clicks the "Sort Owners" button, the SortOwner Option Pane will be shown with three option buttons (Original Order, By Name, By Total Monthly Storage Charge).



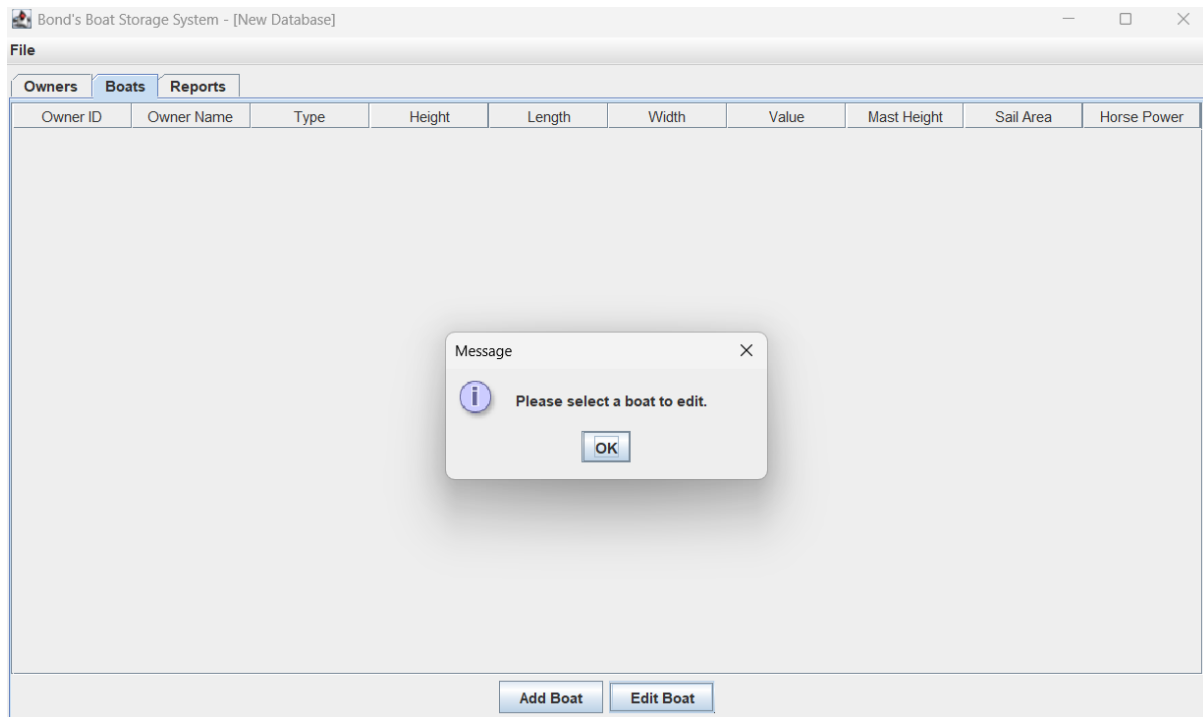
5. After clicking the “Boats” tab, the BoatTabPanel will be shown, which includes a table listing all added boats’ information and a button panel with two buttons: “Add Boat” and “Edit Boat”.



6. For now, since the owner table has no data yet, if you click the “Add Boat” button, an error message will pop up: "No owners available. Please add an owner before adding a boat."




7. Also, since there is no data, if the user clicks the “Edit Boat” button, the error message “Please select a boat to edit” will pop up.



8. After clicking the “Reports” tab, the ReportTabPanel will be shown, which includes:
 - A button panel with three buttons: “Show Charges Summary”, “Show Boat Counts”, and “Show Owner Charges”.
 - A report table that displays three different models for three different reports, depending on the user’s button selection.

If the user clicks the “Show Charges Summary” button (selected by default), the report table will use the "ReportSummaryChargesTableModel" to display the summary of the TOTAL storage charges, sail drying charges, fire levy charges, and insurance levies applicable to ALL boat owners for Bond’s business.

 Bond's Boat Storage System - [New Database]

File

Owners

Boats

Reports

Charges Summary

Charge Type	Amount (\$)
Storage Charges	0.00
Sail Drying Charges	0.00
Fire Levy Charges	0.00
Insurance Charges	0.00
TOTAL MONTHLY INCOME	0.00

Show Charges Summary

Show Boat Counts

Show Owner Charges

9. If the user clicks the “Show Boat Counts” button, the report table will use the "ReportCountsTableModel" to display the count of sail boats, motor boats, and the total boat count currently at Bond’s Boats Storage.

Bond's Boat Storage System - [New Database]

File

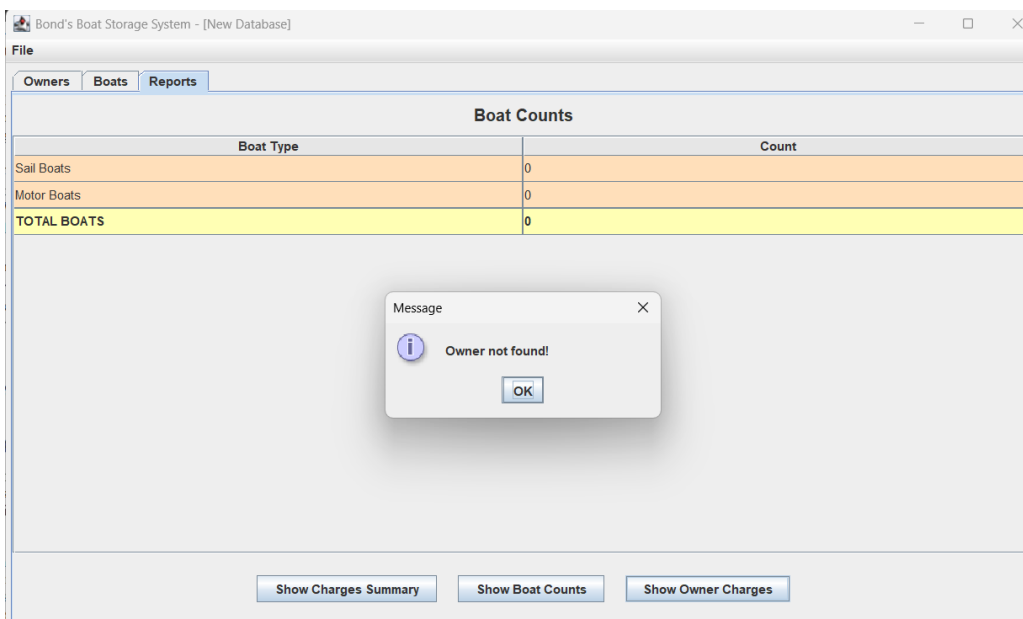
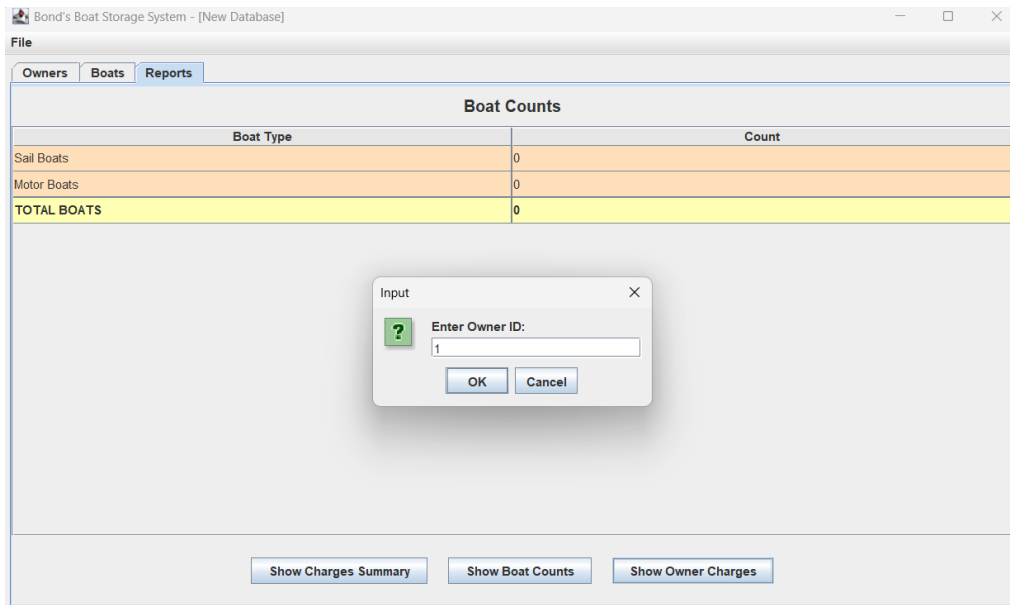
Owners Boats Reports

Boat Counts

Boat Type	Count
Sail Boats	0
Motor Boats	0
TOTAL BOATS	0

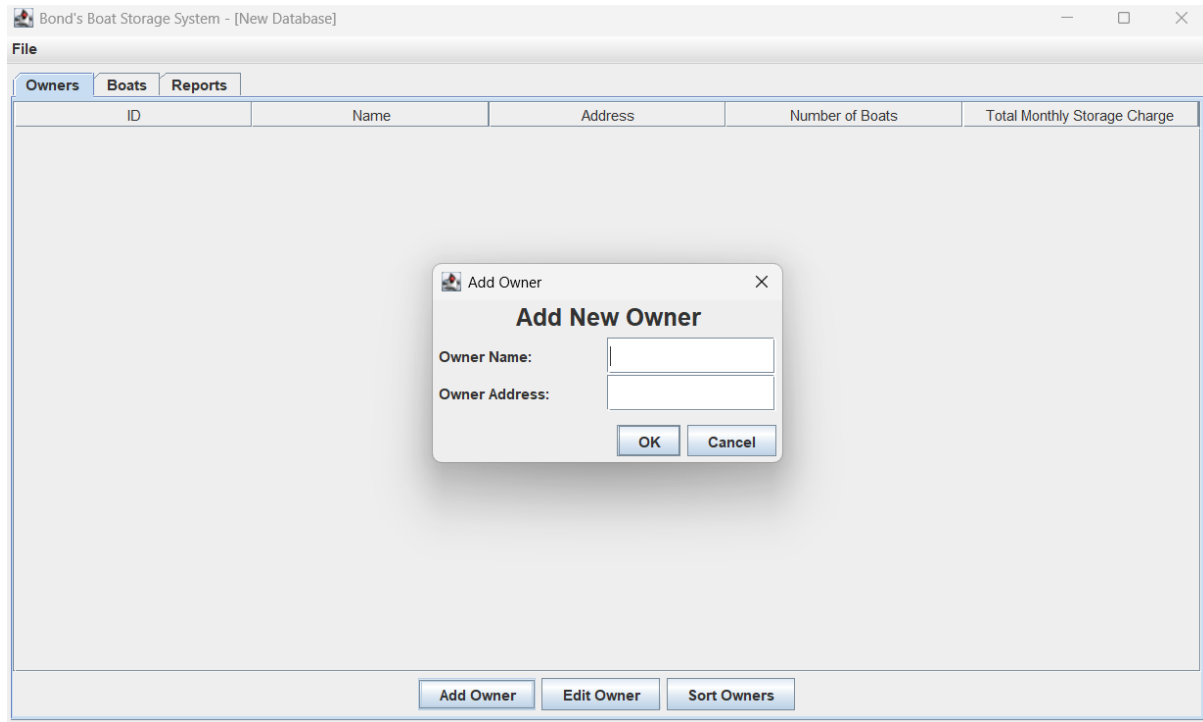
Show Charges Summary Show Boat Counts Show Owner Charges

10. If the user clicks the “Show Owner Charges” button, a popup window will ask the user to enter an owner ID. If the entered owner ID is not found in the system, a pop-up error message “OWNER NOT FOUND” will be shown. If the owner ID is found, the report table will use the "ReportOwnerChargesTableModel" to display the storage charges, sail drying charges, fire levy charges, and insurance levies for ALL boats belonging to the entered owner.

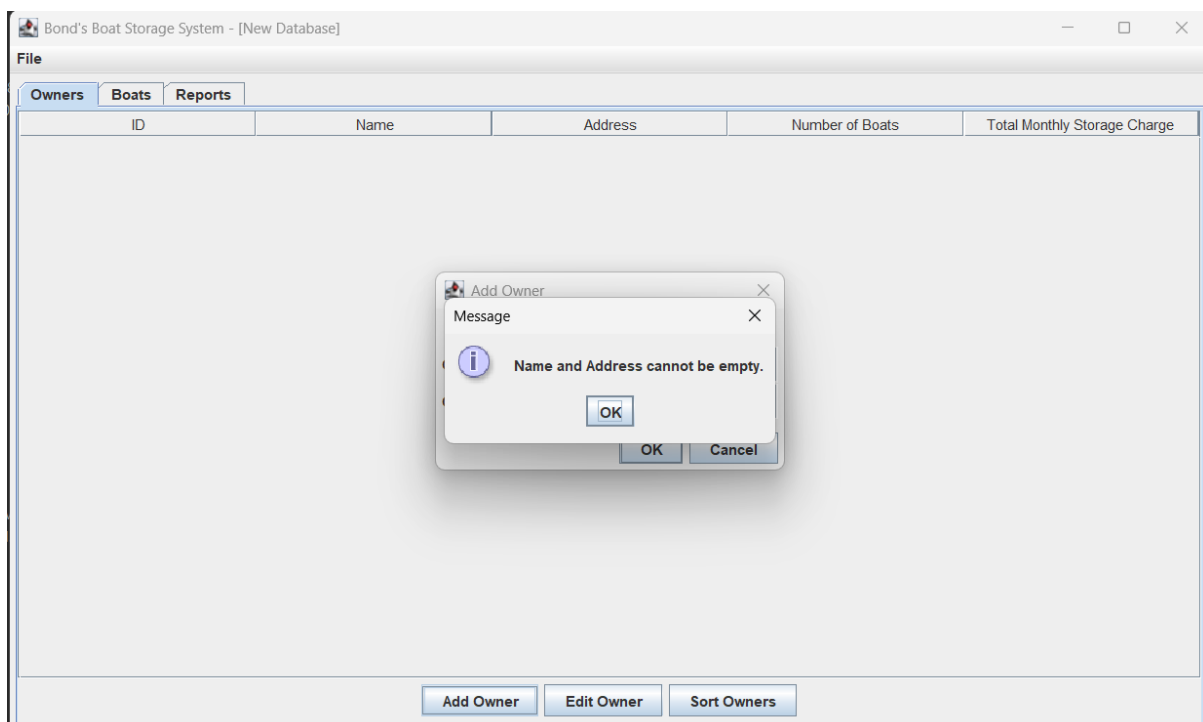


Now, user goes back to the Owners tab and tries to add a new owner to the system:

1. Click the Owners tab.
2. Click the Add Owner button.
3. An "Add Owner" dialog will appear, which consists of two required fields (owner name, owner address).



4. If one of these fields is empty, the system will pop up an error message: "Name and address cannot be empty."



5. If the user provides both fields, the system will show a success message: "Owner added successfully with ID 'XX'!"

The screenshot shows the 'Bond's Boat Storage System - [New Database]' window. The 'Owners' tab is selected. A table with columns 'ID', 'Name', 'Address', 'Number of Boats', and 'Total Monthly Storage Charge' is visible. An 'Add Owner' dialog box is open in the center, containing the following text:

Add New Owner

Owner Name:

Owner Address:

Buttons: OK, Cancel

At the bottom of the main window, there are buttons: Add Owner, Edit Owner, and Sort Owners.

The screenshot shows the 'Bond's Boat Storage System - [New Database]' window. The 'Owners' tab is selected. The table now contains one row:

ID	Name	Address	Number of Boats	Total Monthly Storage Charge
1	Johson Dew	No. 10, Jalan Tun Dr. Ismail, 60000	0	0.00

A 'Message' dialog box is open in the center, displaying the following text:

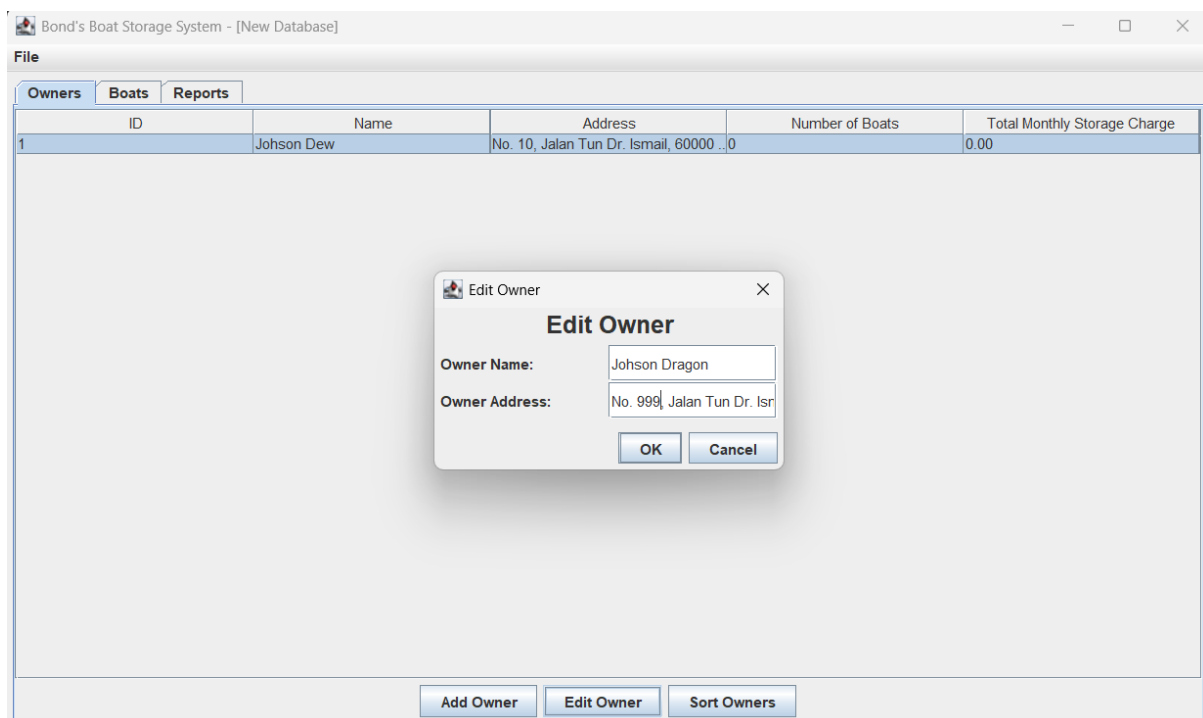
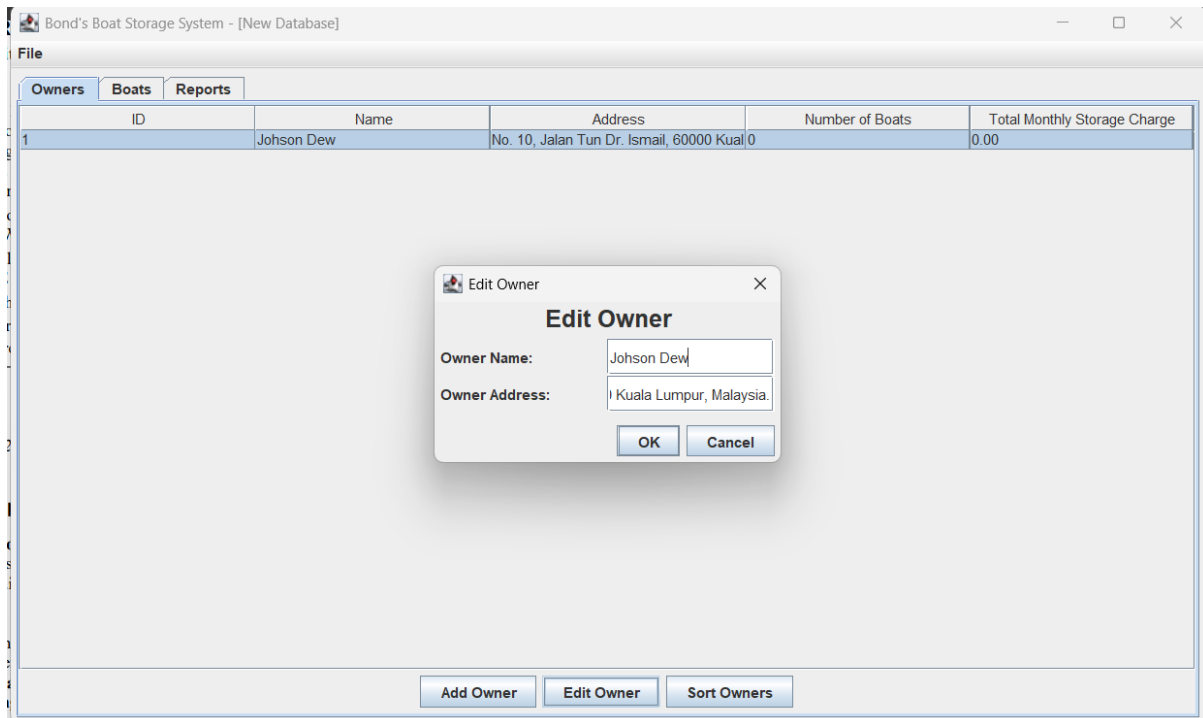
Message

Owner added successfully with ID Number '1'!

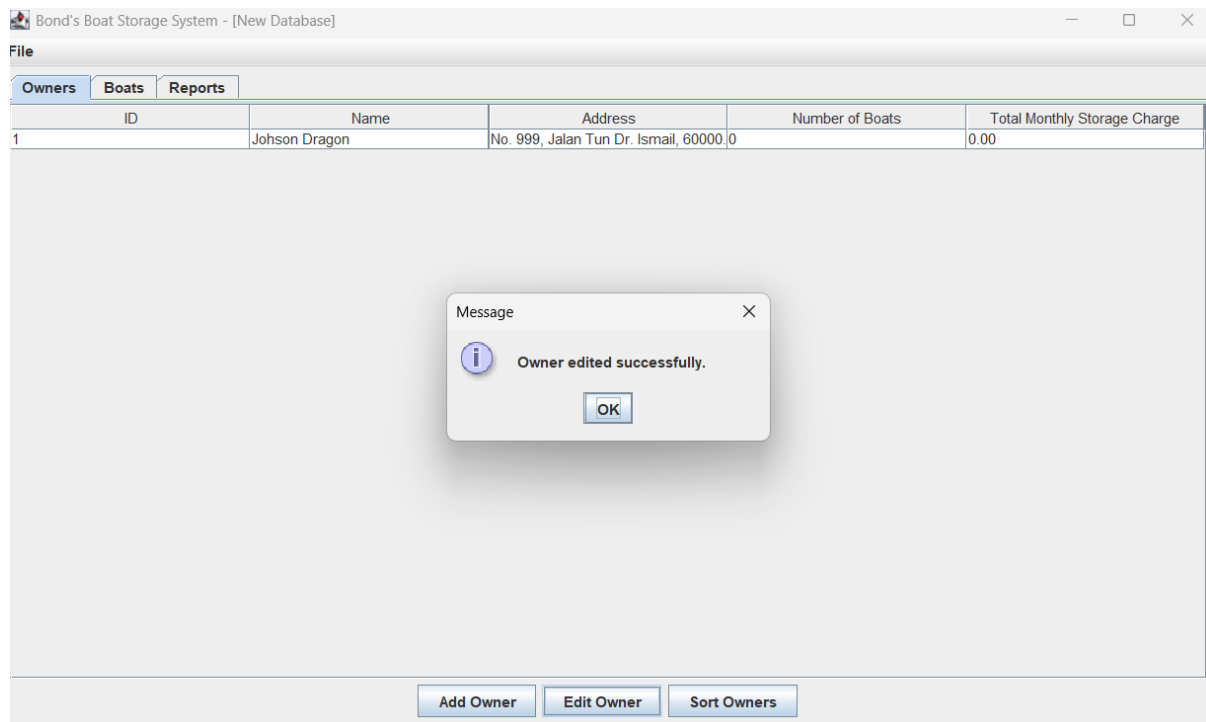
Button: OK

At the bottom of the main window, there are buttons: Add Owner, Edit Owner, and Sort Owners.

6. Now, if the user selects one of the owner rows (with data) and clicks the "Edit Owner" button, the system will show the "Edit Owner" dialog, which consists of two required fields (owner name, owner address). The selected owner's data will be shown in the two input fields. User can choose to save their edited data by clicking "OK" button. If the user does not want to edit, they may choose the close icon or "Cancel" button from the edit dialog to close it.



7. After the user edited value and clicked "OK", a success message will pop up: "Owner edited successfully."
8. The owners table will update with the new owner data.



Now, user goes back to the Boats tab and tries to add a new boat to the system:

1. Click the Boats tab.
2. Click the Add Boat button.
3. An "Add Boat" dialog will appear, which consists of nine fields (owner, boat type, height, length, width, value, mast height, sail area, horse power). The user can select the owner to add the boat for by clicking the arrow and selecting from all currently added owners. The user can select the boat type by clicking the arrow and choosing either SailBoat or MotorBoat.
4. If the user selects "Sail Boat" as the boat type, there are eight required fields to fill in (owner, boat type, height, length, width, value, mast height, sail area).
5. If the user selects "Motor Boat" as the boat type, there are seven required fields to fill in (owner, boat type, height, length, width, value, horse power).

Bond's Boat Storage System - [New Database]

File

Owners Boats Reports

Owner ID	Owner Name	Type	Height	Length	Width	Value	Mast Height	Sail Area	Horse Power
----------	------------	------	--------	--------	-------	-------	-------------	-----------	-------------

Add Boat

Owner: 1 - Johson Dragon

Boat Type: SailBoat

Height: 2.5

Length:

Width: 2.2

Value: 250000

Mast Height (SailBoat): 8.0

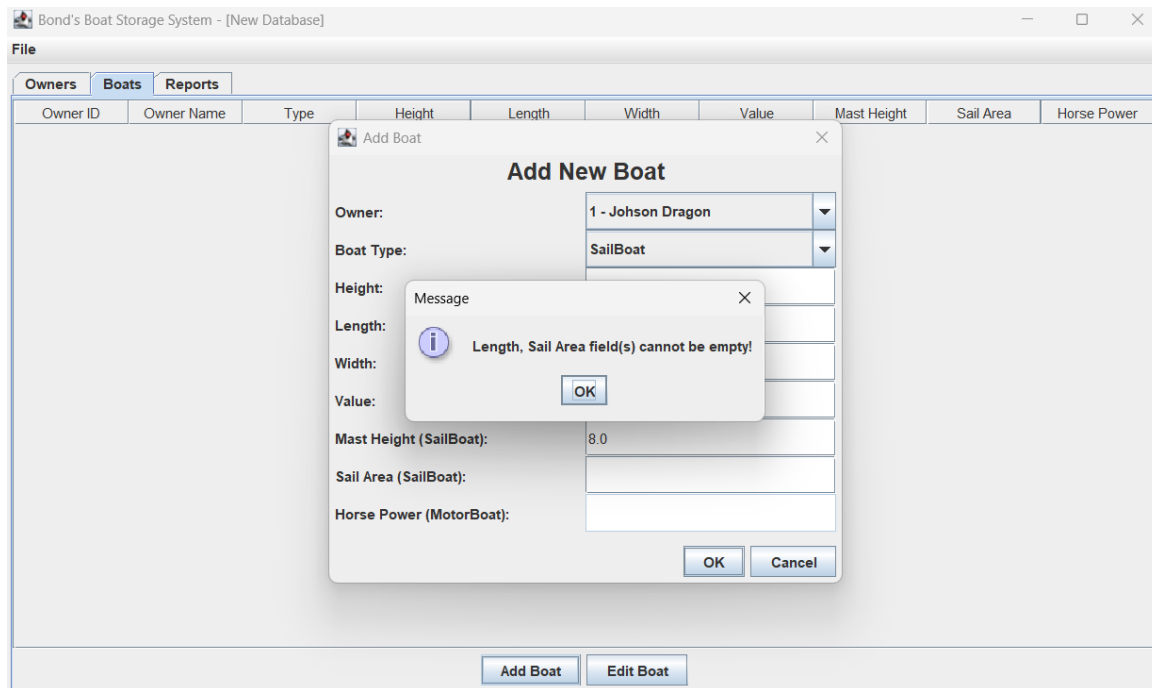
Sail Area (SailBoat):

Horse Power (MotorBoat):

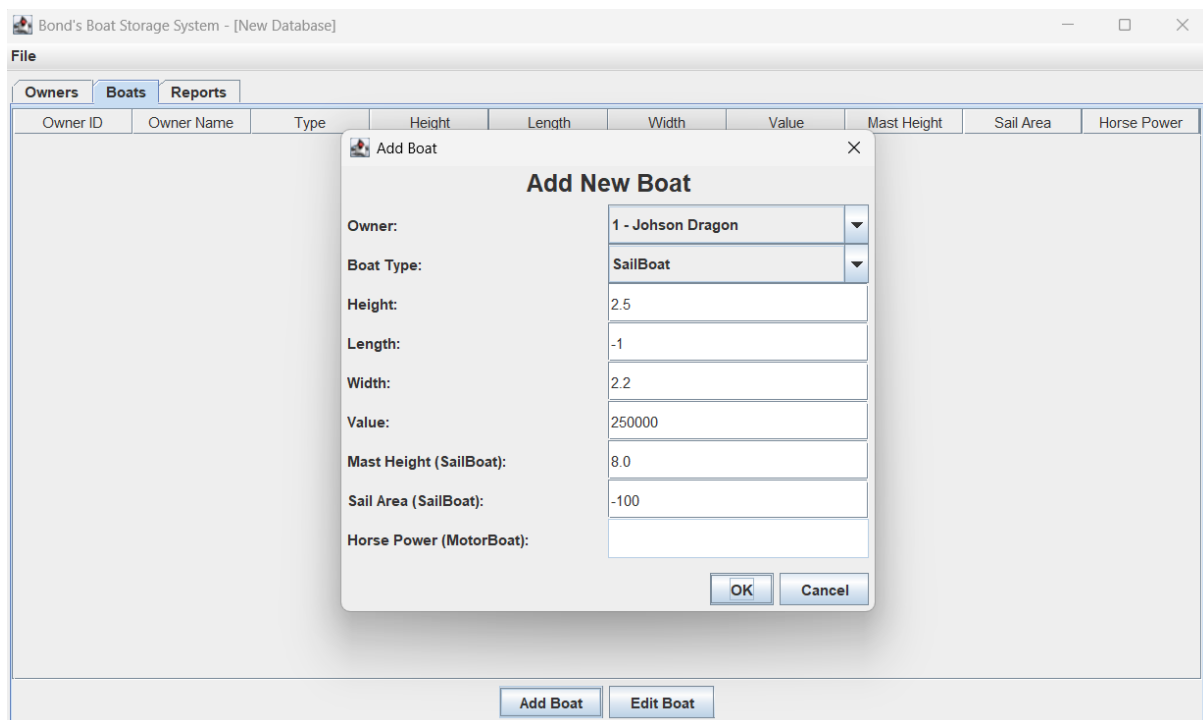
OK Cancel

Add Boat Edit Boat

6. If any required field is empty and the user clicks "OK", the system will pop up an error message: "<XXX> fields cannot be empty."



7. If any required field is a negative number and the user clicks "OK", the system will pop up an error message: "<XXX> must all be positive numbers."



Bond's Boat Storage System - [New Database]

File

Owners Boats Reports

Owner ID	Owner Name	Type	Height	Length	Width	Value	Mast Height	Sail Area	Horse Power
----------	------------	------	--------	--------	-------	-------	-------------	-----------	-------------

Add New Boat

Owner: 1 - Johson Dragon

Boat Type: SailBoat

Message: Height, Length, Width, Value, Mast Height, and Sail Area must all be positive numbers.

OK

Mast Height (SailBoat): 8.0

Sail Area (SailBoat): -100

Horse Power (MotorBoat):

OK Cancel

Add Boat Edit Boat

8. If any required field (except owner and boat type) is not a number, the system will pop up an error message: "Invalid input. Please enter valid numbers."

Bond's Boat Storage System - [New Database]

File

Owners Boats Reports

Owner ID	Owner Name	Type	Height	Length	Width	Value	Mast Height	Sail Area	Horse Power
----------	------------	------	--------	--------	-------	-------	-------------	-----------	-------------

Add New Boat

Owner: 1 - Johson Dragon

Boat Type: SailBoat

Height: 2.5

Length: Test1

Width: 2.2

Value: 250000

Mast Height (SailBoat): 8.0

Sail Area (SailBoat): @@

Horse Power (MotorBoat):

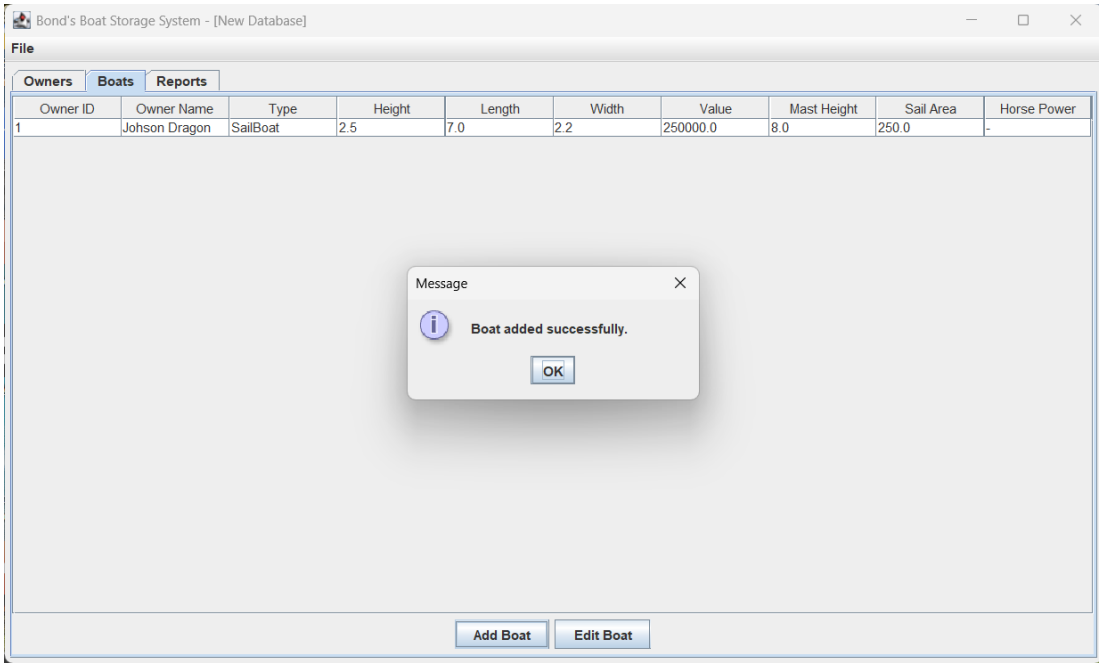
OK Cancel

Add Boat Edit Boat

The screenshot shows the 'Add New Boat' dialog box in the 'Bond's Boat Storage System' application. The dialog box has a title bar with a close button. It contains several input fields: 'Owner' (dropdown menu with '1 - Johson Dragon'), 'Boat Type' (dropdown menu with 'SailBoat'), 'Height', 'Length', 'Width', 'Value', 'Mast Height (SailBoat)', 'Sail Area (SailBoat)', and 'Horse Power (MotorBoat)'. A small 'Message' dialog box is overlaid on top of the 'Add New Boat' dialog, displaying an error message: 'Invalid input: Please enter valid numbers.' with an 'OK' button. The background application window shows a table with columns: Owner ID, Owner Name, Type, Height, Length, Width, Value, Mast Height, Sail Area, and Horse Power. At the bottom of the application window are 'Add Boat' and 'Edit Boat' buttons.

9. If the user provides all fields with valid values and clicks "OK", the system will show a success message: "Boat added successfully!"

The screenshot shows the 'Add New Boat' dialog box in the 'Bond's Boat Storage System' application. The dialog box has a title bar with a close button. It contains several input fields: 'Owner' (dropdown menu with '1 - Johson Dragon'), 'Boat Type' (dropdown menu with 'SailBoat'), 'Height' (text field with '2.5'), 'Length' (text field with '7.0'), 'Width' (text field with '2.2'), 'Value' (text field with '250000'), 'Mast Height (SailBoat)' (text field with '8.0'), 'Sail Area (SailBoat)' (text field with '250'), and 'Horse Power (MotorBoat)' (text field). The 'OK' and 'Cancel' buttons are at the bottom right. The background application window shows the same table as the previous screenshot, with 'Add Boat' and 'Edit Boat' buttons at the bottom.



10. Add new boat (Motor boat type):

Bond's Boat Storage System - [New Database]

File

Owners Boats Reports

Owner ID	Owner Name	Type	Height	Length	Width	Value	Mast Height	Sail Area	Horse Power
1	Johson Dragon	SailBoat						250.0	-

Add Boat

Add New Boat

Owner: 1 - Johson Dragon

Boat Type: MotorBoat

Height: 3.5

Length: 8.5

Width:

Value:

Mast Height (SailBoat):

Sail Area (SailBoat):

Horse Power (MotorBoat):

OK Cancel

Add Boat Edit Boat

Bond's Boat Storage System - [New Database]

File

Owners Boats Reports

Owner ID	Owner Name	Type	Height	Length	Width	Value	Mast Height	Sail Area	Horse Power
1	Johson Dragon	SailBoat						250.0	-

Add Boat

Add New Boat

Owner: 1 - Johson Dragon

Boat Type: MotorBoat

Height: 3.5

Length: 8.5

Width:

Value:

Mast Height (SailBoat):

Sail Area (SailBoat):

Horse Power (MotorBoat):

OK Cancel

Add Boat Edit Boat

Message

Width, Value, Horse Power field(s) cannot be empty!

OK

Bond's Boat Storage System - [New Database]

File

OwnersBoatsReports

Owner ID	Owner Name	Type	Height	Length	Width	Value	Mast Height	Sail Area	Horse Power
1	Johson Dragon	SailBoat						250.0	-

Add Boat

Add New Boat

Owner:

1 - Johson Dragon

Boat Type:

MotorBoat

Height:

3.5

Length:

8.5

Width:

2.5

Value:

280000

Mast Height (SailBoat):

Sail Area (SailBoat):

Horse Power (MotorBoat):

85

OK

Cancel

Add Boat

Edit Boat

Bond's Boat Storage System - [New Database]

File

OwnersBoatsReports

Owner ID	Owner Name	Type	Height	Length	Width	Value	Mast Height	Sail Area	Horse Power
1	Johson Dragon	SailBoat	2.5	7.0	2.2	250000.0	8.0	250.0	-
1	Johson Dragon	MotorBoat	3.5	8.5	2.5	280000.0	-	-	85

Message

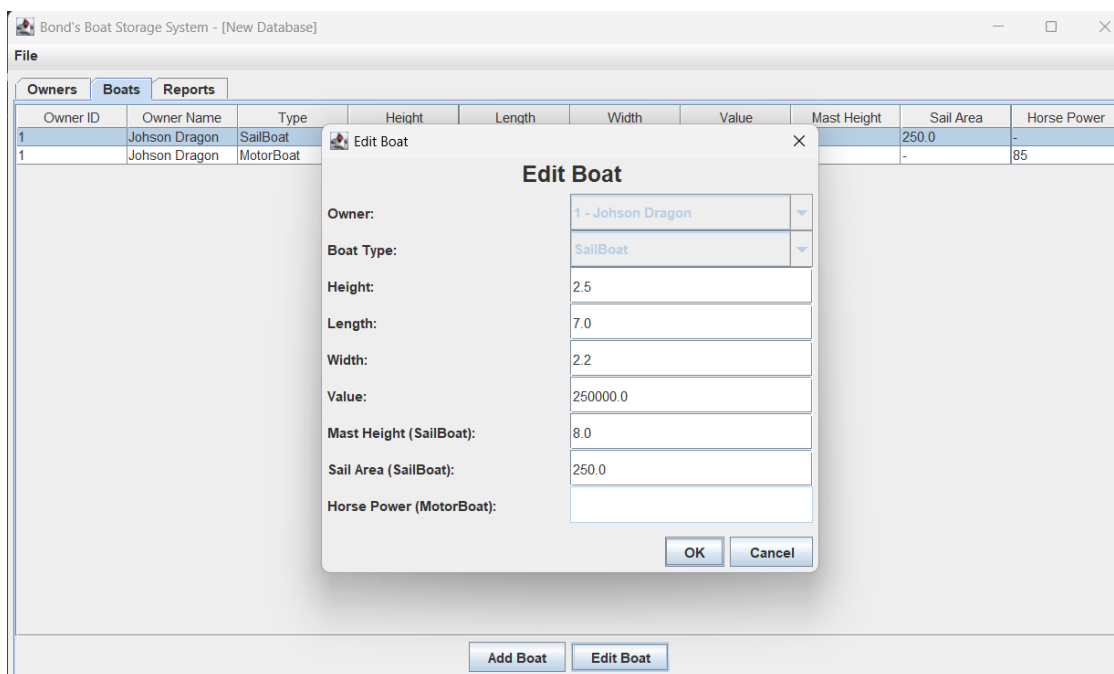
Boat added successfully.

OK

Add Boat

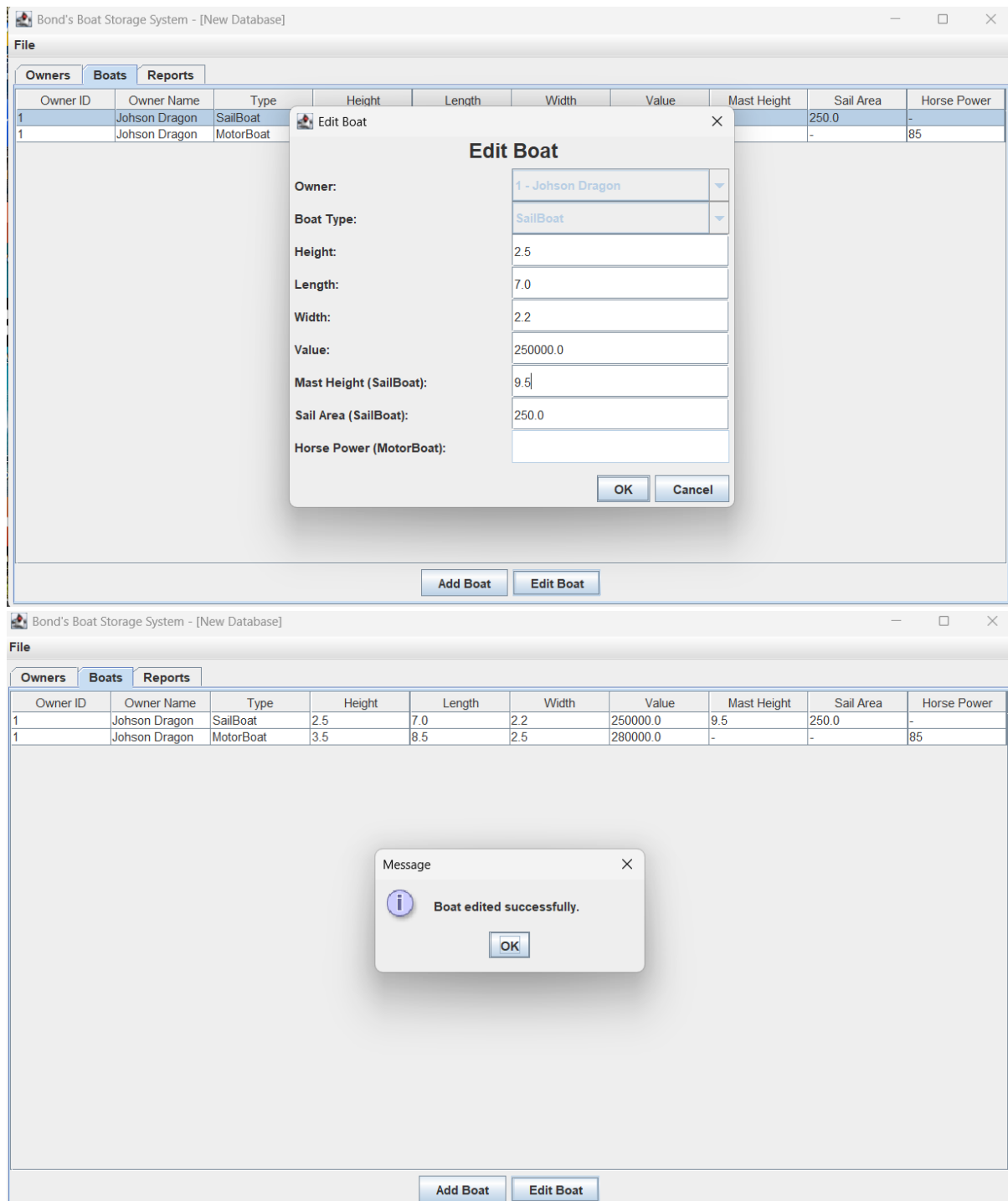
Edit Boat

11. Now, if the user selects one of the boat rows (with data) and clicks the "Edit Boat" button, the system will show the "Edit Boat" dialog, which will display all nine fields details (owner, boat type, height, length, width, value, mast height, sail area, horse power) for the selected boat. Here, the user cannot reselect the owner or boat type, as these fields are disabled.
12. If the selected boat is a "Sail Boat", there are six required fields (height, length, width, value, mast height, sail area).
13. If the selected boat is a "Motor Boat", there are five required fields (height, length, width, value, horse power).
14. If any required field is edited to be empty, the system will pop up an error message: "<XXX> fields cannot be empty."
15. If the user does not want to edit, they may choose the close icon or "Cancel" button from the edit dialog to close it.



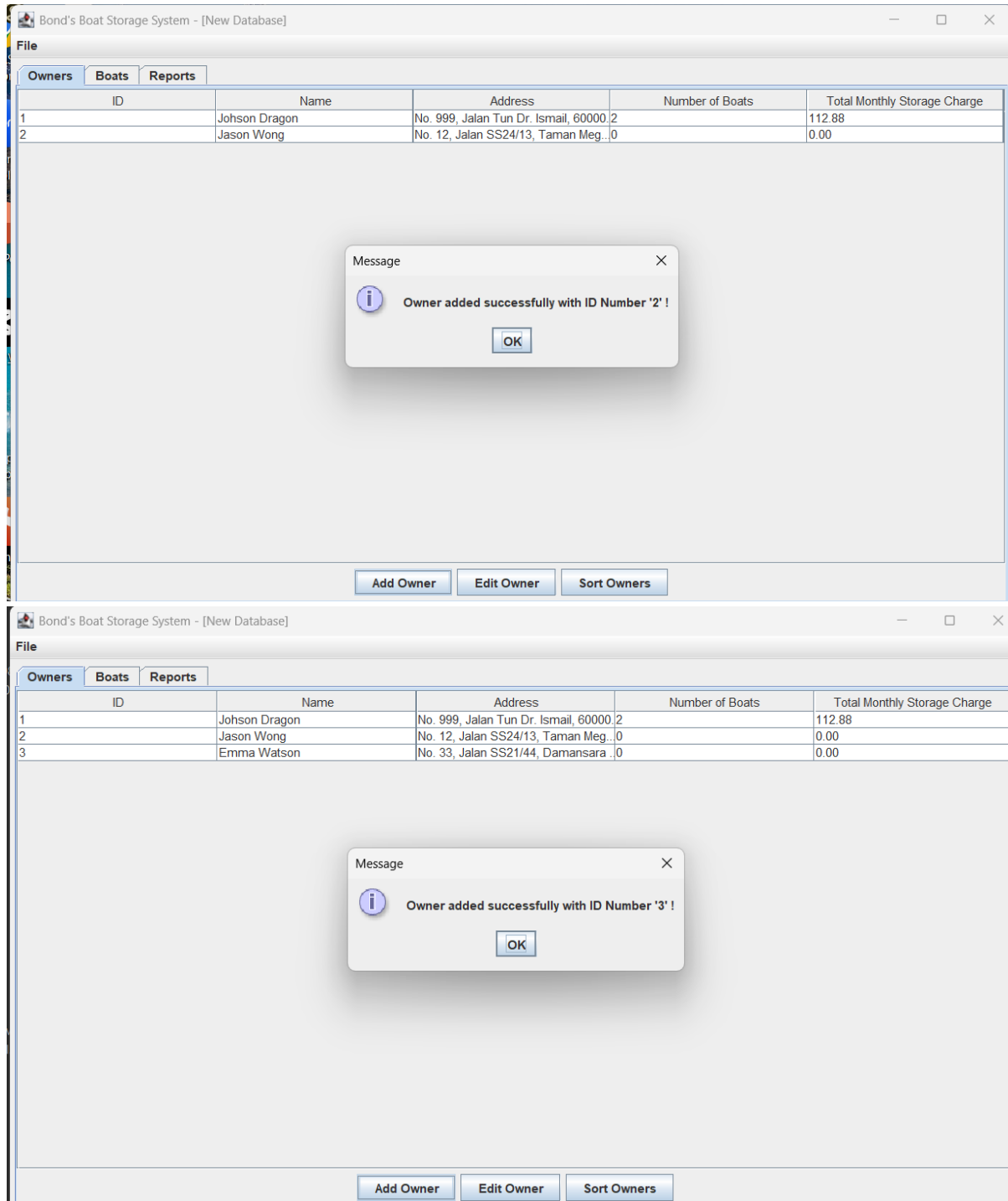
16. If the user edited fields with valid values and clicks "OK", a success message will pop up: "Boat edited successfully."

17. After the user edits successfully, the boats table will update with the new boat data.



Now, user goes back to the Owners tab and tries to add more new owners to the system:

1. Click the Owners tab.
2. Click the Add Owner button.
3. Add two more new owners: Jason Wong & Emma Watson in the "Add Owner" dialog.



Now, user goes back to the Boats tab and tries to add more new boats to the system:

1. Click the Boats tab.
2. Click the Add Boat button.
3. Add new boats for Jason Wong & Emma Watson in the "Add Boat" dialog.
4. In the "Add Boat" dialog, they can choose between all owners that have been added previously from the owner field. Also, they can choose between SailBoat or MotorBoat for the boat type.
5. Provide all valid values

Bond's Boat Storage System - [New Database]

File

Owners Boats Reports

Owner ID	Owner Name	Type	Height	Length	Width	Value	Mast Height	Sail Area	Horse Power
1	Johnson Dragon	SailBoat					250.0	-	
1	Johnson Dragon	MotorBoat					-		85

Add Boat

Add New Boat

Owner: 2 - Jason Wong

Boat Type: 1 - Johnson Dragon

Height:

Length:

Width:

Value:

Mast Height (SailBoat):

Sail Area (SailBoat):

Horse Power (MotorBoat):

OK Cancel

Add Boat Edit Boat

Bond's Boat Storage System - [New Database]

File

Owners Boats Reports

Owner ID	Owner Name	Type	Height	Length	Width	Value	Mast Height	Sail Area	Horse Power
1	Johnson Dragon	SailBoat					250.0	-	
1	Johnson Dragon	MotorBoat					-		85

Add Boat

Add New Boat

Owner: 2 - Jason Wong

Boat Type: MotorBoat

Height:

Length:

Width:

Value:

Mast Height (SailBoat):

Sail Area (SailBoat):

Horse Power (MotorBoat):

OK Cancel

Add Boat Edit Boat

Bond's Boat Storage System - [New Database]

File

OwnersBoatsReports

Owner ID	Owner Name	Type	Height	Length	Width	Value	Mast Height	Sail Area	Horse Power
1	Johson Dragon	SailBoat						250.0	-
1	Johson Dragon	MotorBoat						-	85

Add Boat

Add New Boat

Owner:

2 - Jason Wong

Boat Type:

MotorBoat

Height:

2.2

Length:

5.5

Width:

2.8

Value:

450000

Mast Height (SailBoat):

Sail Area (SailBoat):

Horse Power (MotorBoat):

78

OK

Cancel

Add Boat

Edit Boat

Bond's Boat Storage System - [New Database]

File

OwnersBoatsReports

Owner ID	Owner Name	Type	Height	Length	Width	Value	Mast Height	Sail Area	Horse Power
1	Johson Dragon	SailBoat	2.5	7.0	2.2	250000.0	9.5	250.0	-
1	Johson Dragon	MotorBoat	3.5	8.5	2.5	280000.0	-	-	85
2	Jason Wong	MotorBoat	2.2	5.5	2.8	450000.0	-	-	78

Message

Boat added successfully.

OK

Add Boat

Edit Boat

Bond's Boat Storage System - [New Database]

File

OwnersBoatsReports

Owner ID	Owner Name	Type	Height	Length	Width	Value	Mast Height	Sail Area	Horse Power
1	Johson Dragon	SailBoat						250.0	-
1	Johson Dragon	MotorBoat					-	-	85
2	Jason Wong	MotorBoat					-	-	78

Add Boat

Add New Boat

Owner:

3 - Emma Watson

Boat Type:

SailBoat

Height:

2.3

Length:

3.5

Width:

2.8

Value:

210000

Mast Height (SailBoat):

8.2

Sail Area (SailBoat):

195

Horse Power (MotorBoat):

OK

Cancel

Add Boat

Edit Boat

Bond's Boat Storage System - [New Database]

File

OwnersBoatsReports

Owner ID	Owner Name	Type	Height	Length	Width	Value	Mast Height	Sail Area	Horse Power
1	Johson Dragon	SailBoat	2.5	7.0	2.2	250000.0	9.5	250.0	-
1	Johson Dragon	MotorBoat	3.5	8.5	2.5	280000.0	-	-	85
2	Jason Wong	MotorBoat	2.2	5.5	2.8	450000.0	-	-	78
3	Emma Watson	SailBoat	2.3	3.5	2.8	210000.0	8.2	195.0	-

Message

Boat added successfully.

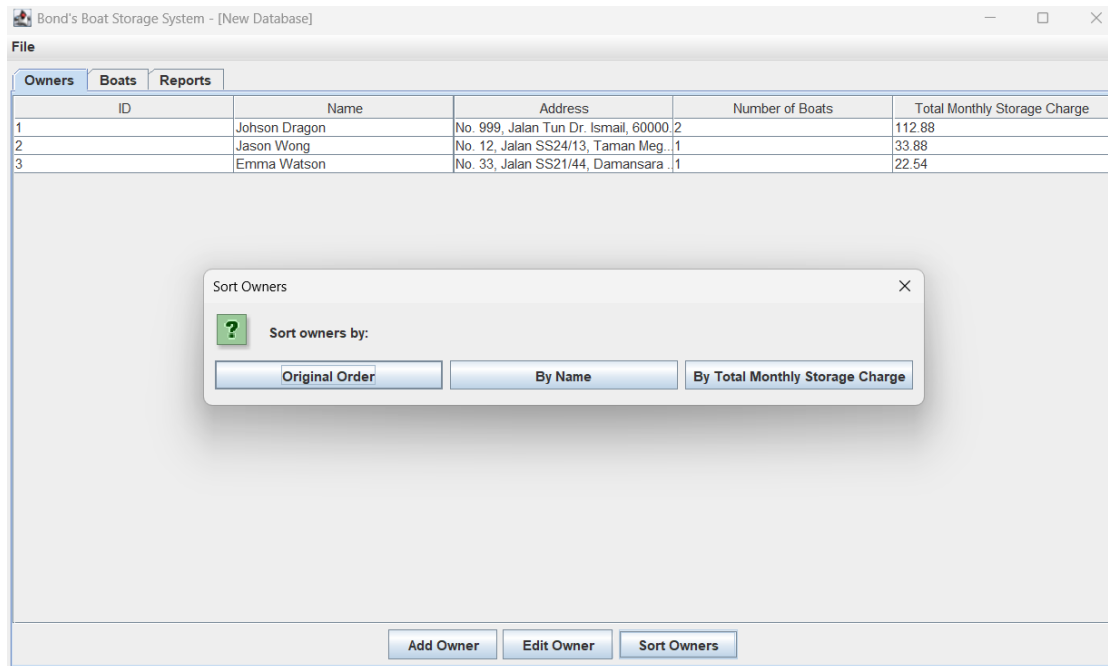
OK

Add Boat

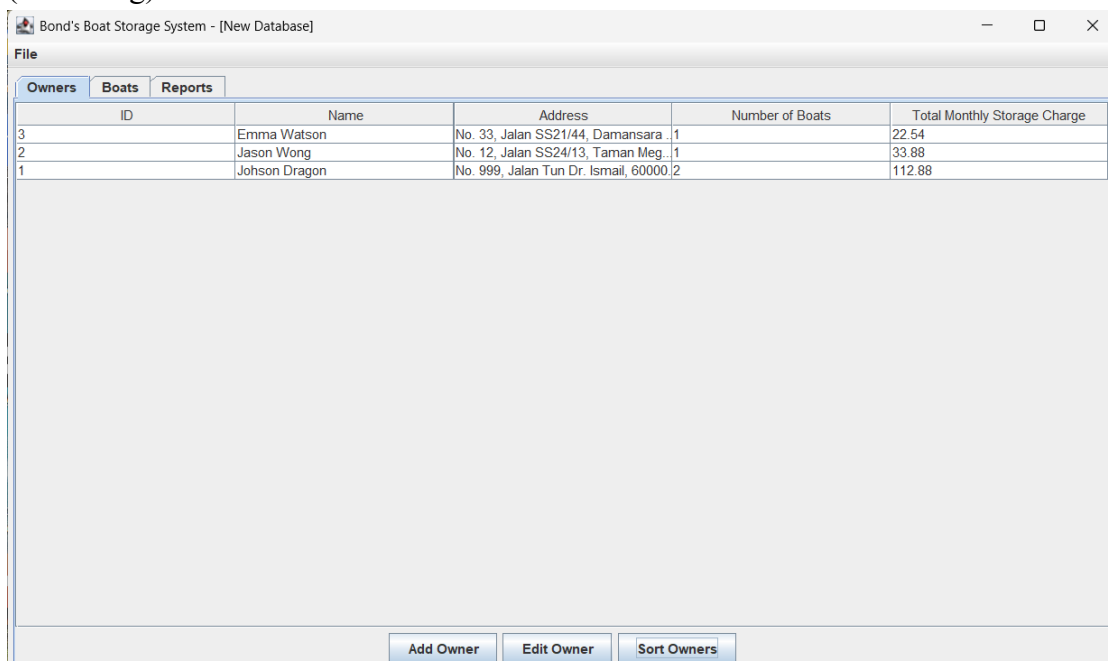
Edit Boat

Now, user goes back to the Owners tab and clicks the "Sort Owners" button.

1. If the user selects “Original Order”, the system will remain as it is (showing the original order by default).



2. If the user selects “By Name”, the owner table will be shown in alphabetical order (ascending).



3. If the user selects “Total Monthly Storage Charge”, the owner table will be sorted in descending order (from largest to smallest) by total monthly storage charge.

Bond's Boat Storage System - [New Database]

File

Owners Boats Reports

ID	Name	Address	Number of Boats	Total Monthly Storage Charge
1	Johson Dragon	No. 999, Jalan Tun Dr. Ismail, 60000	2	112.88
2	Jason Wong	No. 12, Jalan SS24/13, Taman Meg...	1	33.88
3	Emma Watson	No. 33, Jalan SS21/44, Damansara	1	22.54

Add Owner Edit Owner Sort Owners

Now, switch to the “Reports” tab and click “Show Charges Summary”:

1. It will show a summary display of the TOTAL storage charges, sail drying charges, fire levy charges, and insurance levies that are applicable in total to ALL boat owners for Bond’s business, based on all the data added previously.

Charge Type	Amount (\$)
Storage Charges	169.30
Sail Drying Charges	44.50
Fire Levy Charges	16.30
Insurance Charges	595.00
TOTAL MONTHLY INCOME	825.10

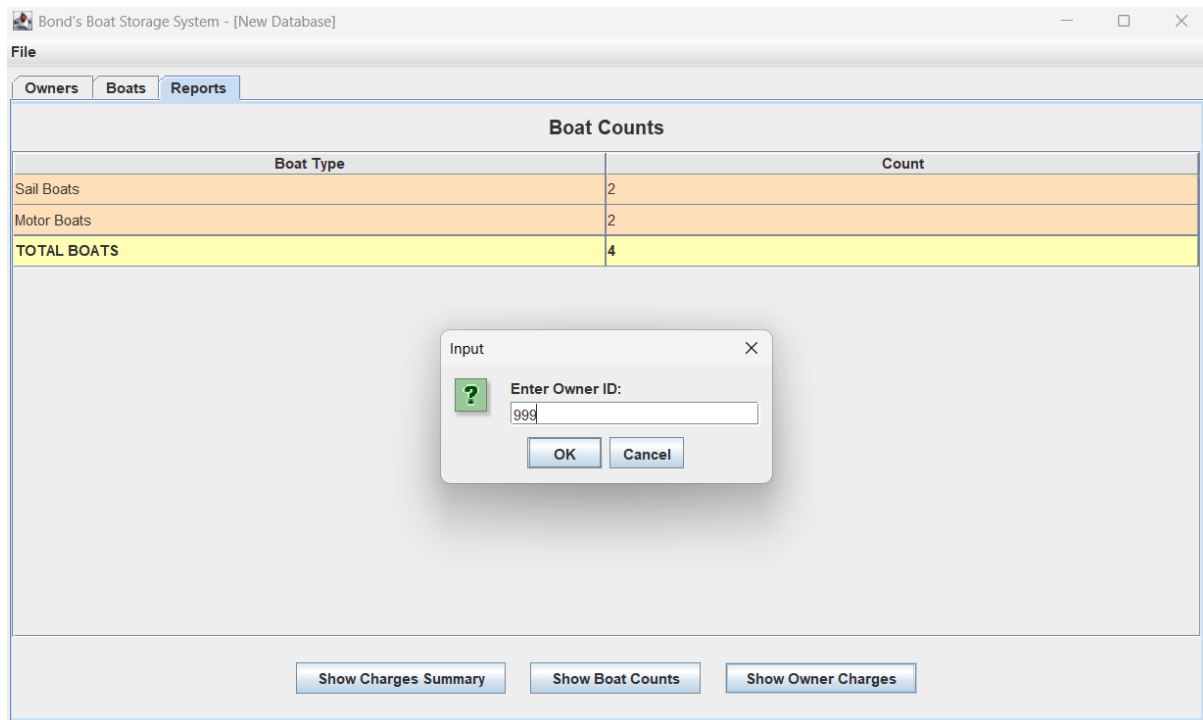
Now, switch to the “Reports” tab and click “Show Boat Counts”:

1. It will show a count of the number of sail boats, a count of the number of motor boats, and the total boat count currently at Bond’s Boats Storage, based on all the data added previously.

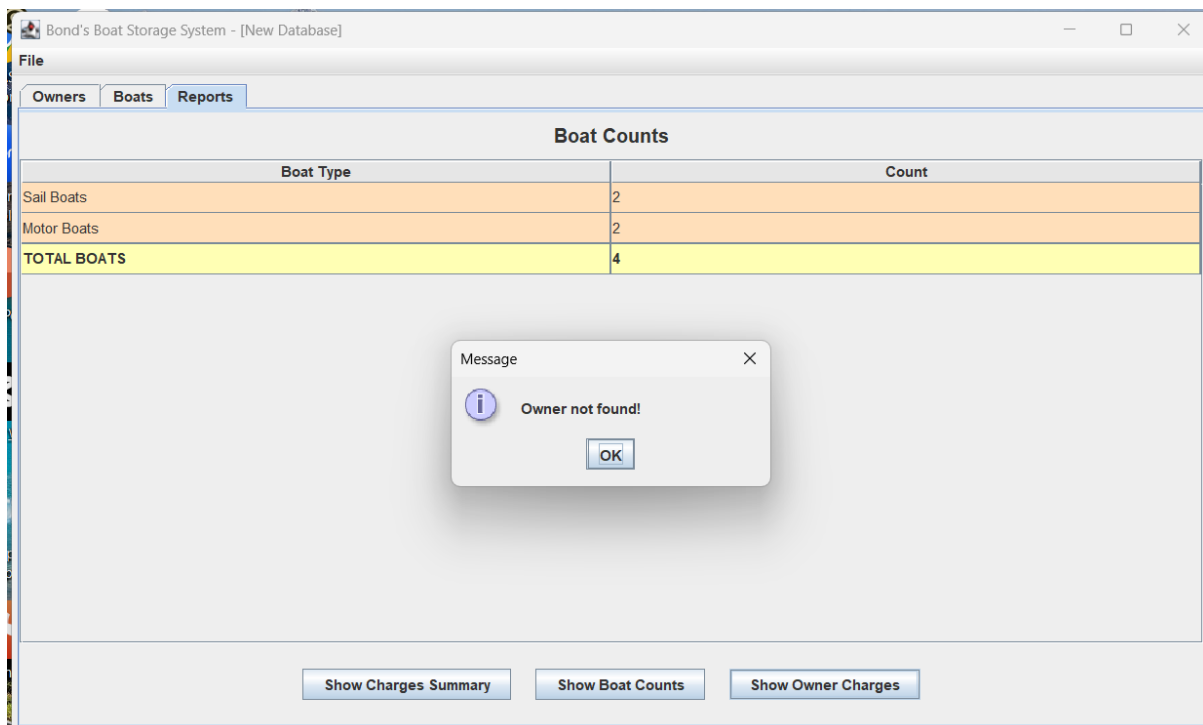
Boat Type	Count
Sail Boats	2
Motor Boats	2
TOTAL BOATS	4

Now, switch to the “Reports” tab and click “Show Owner Charges”:

1. A popup window will ask the user to enter an owner ID.



2. If the given owner ID is not found, the system will prompt “Owner not found”.



3. If the owner ID is found, it will show a table displaying all types of charges for all boats belonging to the entered owner, based on all the data added previously.

Bond's Boat Storage System - [New Database]

File

Owners Boats Reports

Boat Counts

Boat Type	Count
Sail Boats	2
Motor Boats	2
TOTAL BOATS	4

Show Charges Summary Show Boat Counts Show Owner Charges

Bond's Boat Storage System - [New Database]

File

Owners Boats Reports

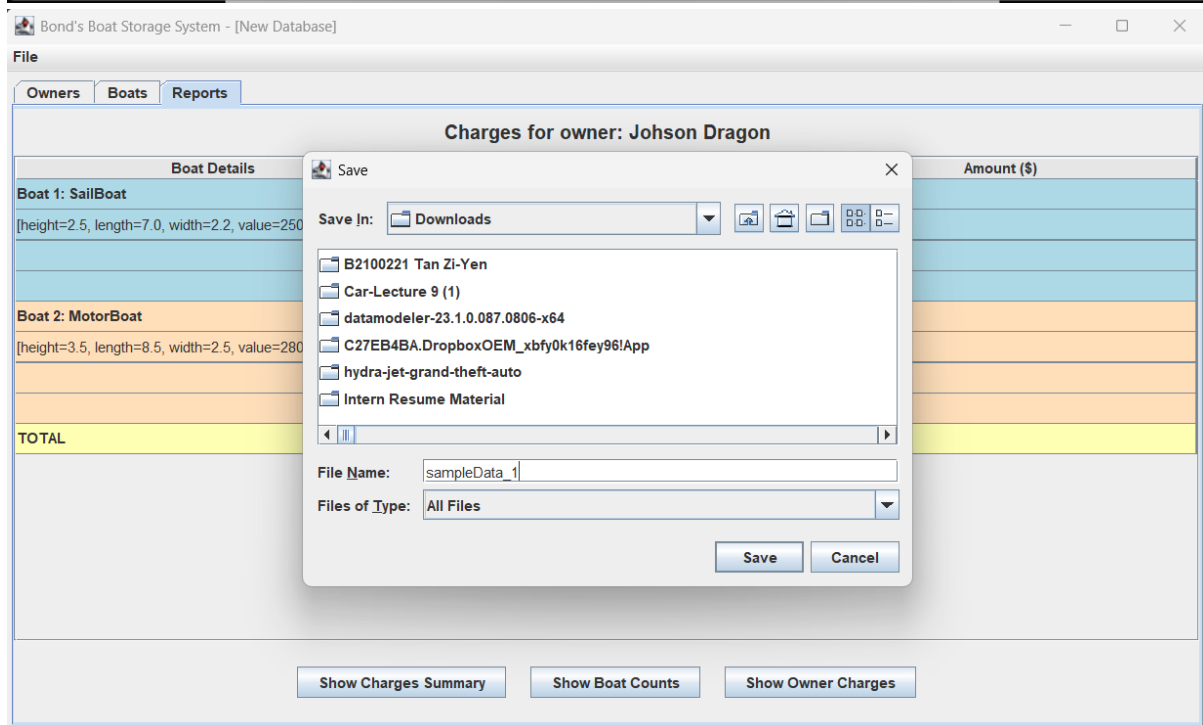
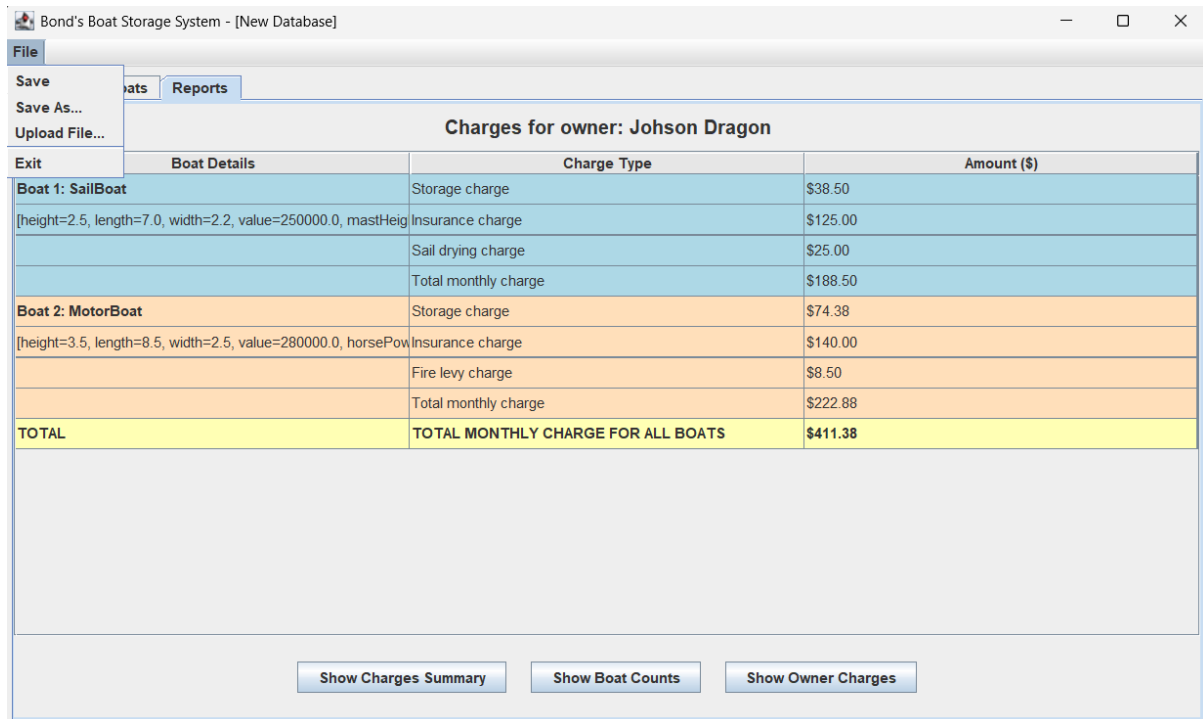
Charges for owner: Johnson Dragon

Boat Details	Charge Type	Amount (\$)
Boat 1: SailBoat	Storage charge	\$38.50
(height=2.5, length=7.0, width=2.2, value=250000.0, mastHeight=1.5)	Insurance charge	\$125.00
	Sail drying charge	\$25.00
	Total monthly charge	\$188.50
Boat 2: MotorBoat	Storage charge	\$74.38
(height=3.5, length=8.5, width=2.5, value=280000.0, horsepower=150)	Insurance charge	\$140.00
	Fire levy charge	\$8.50
	Total monthly charge	\$222.88
TOTAL	TOTAL MONTHLY CHARGE FOR ALL BOATS	\$411.38

Show Charges Summary Show Boat Counts Show Owner Charges

Now, the user can choose “Save As” from the File Menu to save the new database to a new file location:

1. Choose the file location and enter file name for saving this database to the file.



Bond's Boat Storage System - [sampleData_1]

File

OwnersBoatsReports

Charges for owner: Johson Dragon

Boat Details	Charge Type	Amount (\$)
Boat 1: SailBoat	Storage charge	\$38.50
[height=2.5, length=7.0, width=2.2, value=250000.0, mastHeig	Insurance charge	\$125.00
	Sail drying charge	\$25.00
	Total monthly charge	\$188.50
Boat 2: MotorBoat	Storage Message	\$74.38
[height=3.5, length=8.5, width=2.5, value=280000.0, horsePow	Insurance	\$140.00
	Fire le	\$8.50
	Total	\$222.88
TOTAL	TOTAL	\$411.38

Database saved successfully.

OK

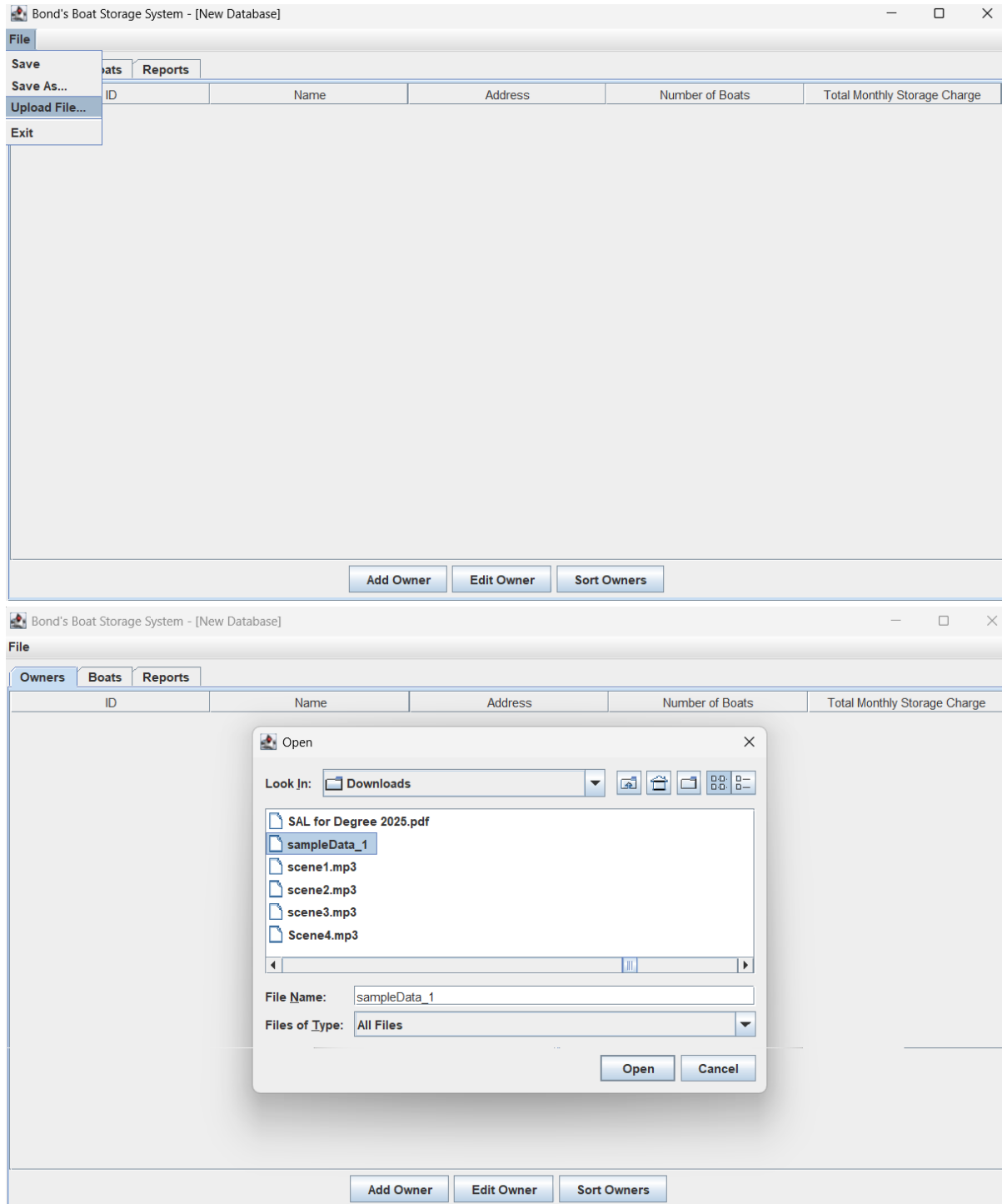
Show Charges Summary

Show Boat Counts

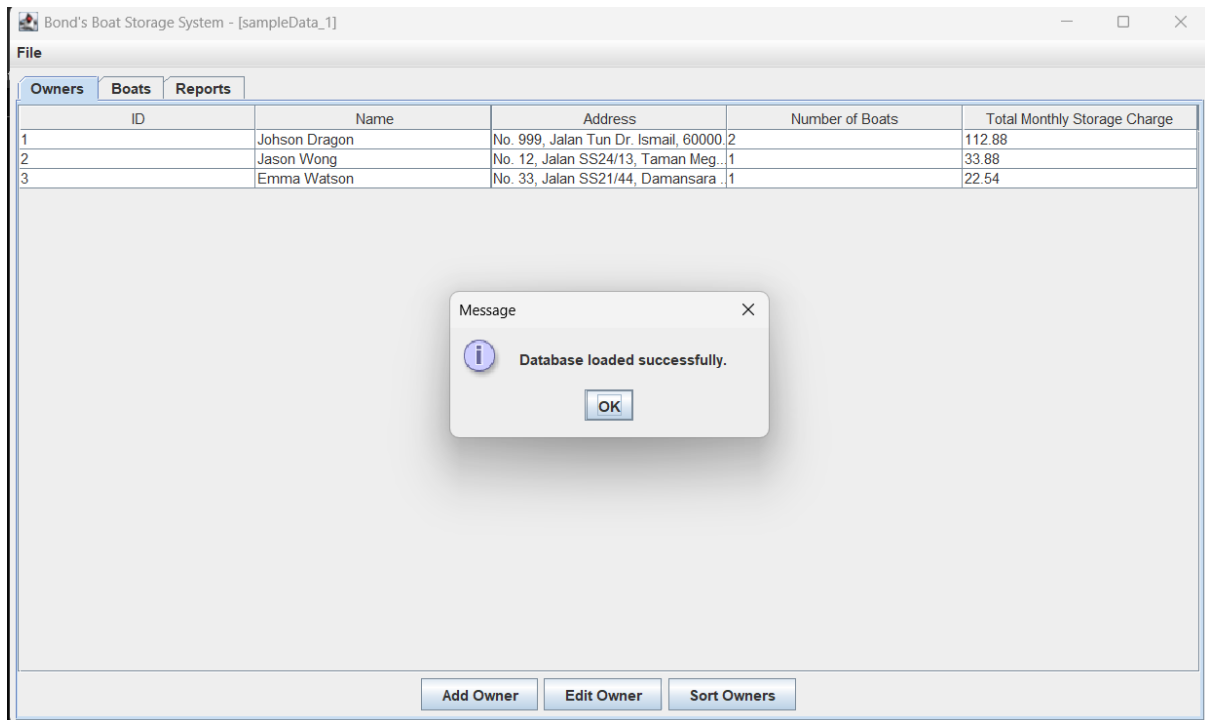
Show Owner Charges

Now, load the data that just been saved into the file “sampleData_1” to system:

1. Close the Java GUI program and rerun it. No data is shown currently since it is a new database.
2. Choose “Upload File”, and the file chooser will appear. Find and select the file named “sampleData_1” to load all data from the previously saved file.

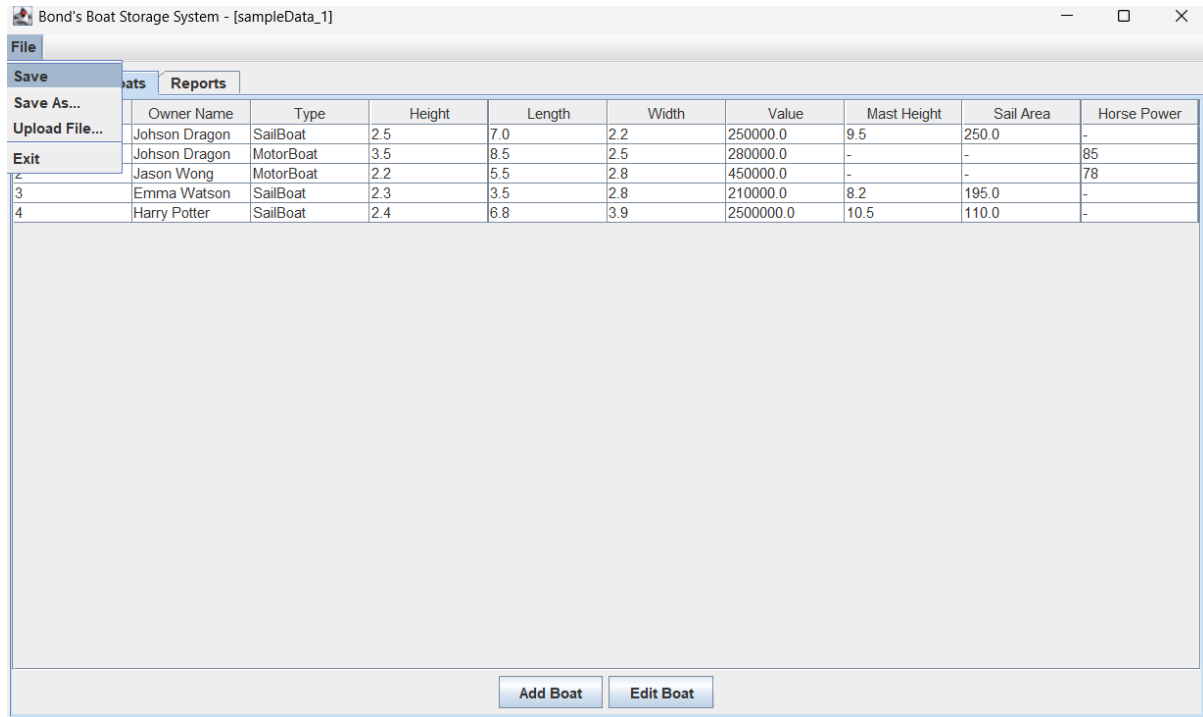


3. After that, a “Database loaded successfully” message is shown, and all the data stored in the “sampleData_1” file is loaded back.

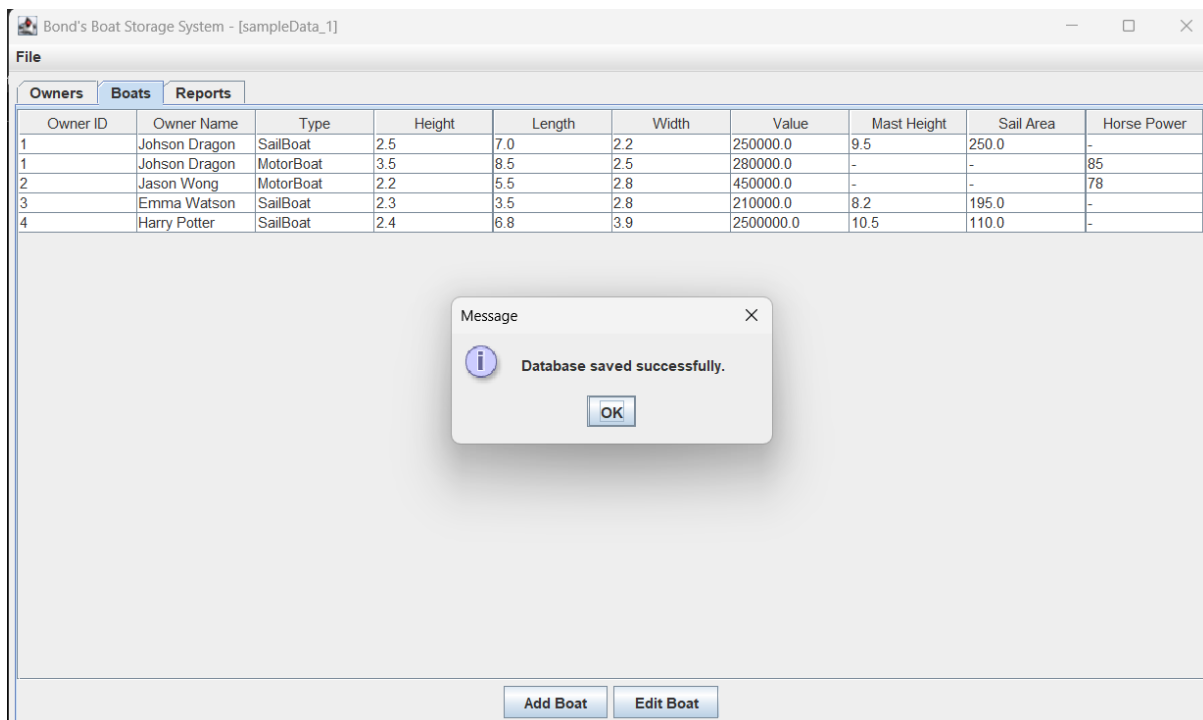


Now, try to add a new owner and add a boat for the owner.

1. Add new owner 4 “Harry Potter” information.
2. Then, choose File → “Save” to save all the updated data to the existing file "sampleData_1".

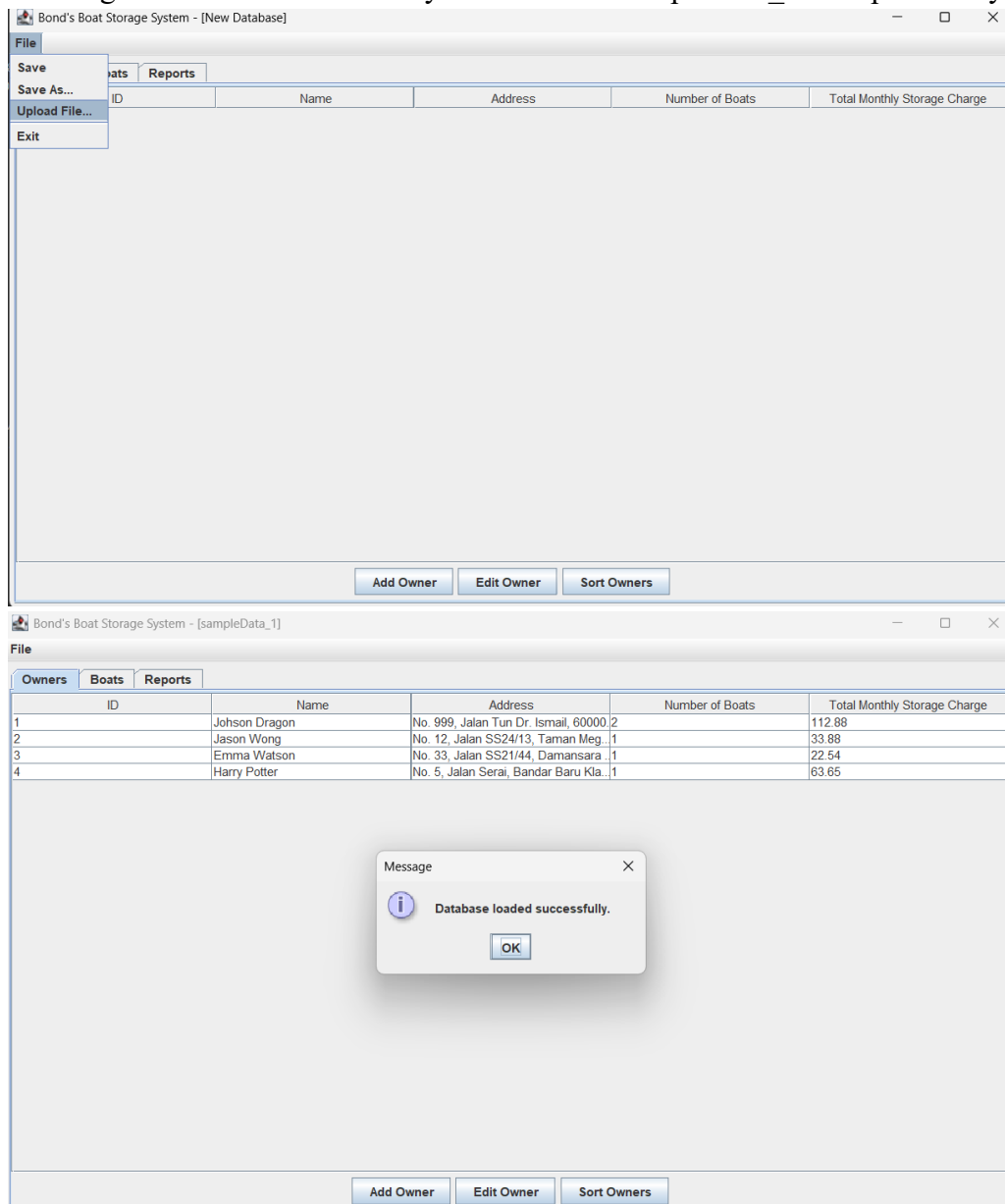


3. After clicking “Save”, the system will prompt “Database saved successfully” to the existing file.



Now, close the Java GUI program again, and choose “Upload File”:

1. The file chooser will appear. Find and select the file named “sampleData_1” to load all data from the previously saved file.
2. Now, you can see that all newly added owners and boats are loaded back as well, meaning the data was successfully saved to the “sampleData_1” file previously.



User can close the GUI program by choosing “Exit” from File menu: