**Programming Project Report**

Name: Morgan Maness

**Academic Integrity Statement:** I pledge that I have neither given nor received unauthorized help on this programming assignment.

The goal of the programming assignment is to create an interface to simulate a spaceship, where you can decide the name of the spaceship, the crew size, the impulse speed, and the shield status. It prints out all the current settings for the spaceship. For error handling, you just have to ensure that all of the inputs the user enters is valid.

The design was laid out for me, just fill out the comments. For data structures, we used the class spaceship for most of everything. For algorithms it is mostly setters and getters to update the information for the spaceship.

For the implementation process, I used the skeleton code that was provided for me, and then I used my lab work for reference to ensure that I was setting all my classes correctly.

For testing, I had to check each option multiple times to ensure that all my error testing worked. I checked that the accepted inputs worked, and then I had to check that my error handling worked as I expected. The only thing that did not work as I expected was the get travel time option. I am sure I just didn’t set the algorithm up right, but that was the one thing that didn’t work as expected.

Overall the assignment was a success, besides the one problem. It took me several hours to complete the project, and if I were to do this again, I would make sure to pay closer attention to everything the header says to save myself the headache of yelling at my computer trying to figure out why it doesn’t work.

Input Output

defaultSpaceship

Name: NoName

Crew Size: 0 crew members.

Impulse Speed: 0 km/sec.

Shields Up: FALSE

mySpaceship

Name: Excalibur

Crew Size: 10 crew members.

Impulse Speed: 10,000 km/sec.

Shields Up: FALSE

copySpaceship

Name: Excalibur

Crew Size: 10 crew members.

Impulse Speed: 10,000 km/sec.

Shields Up: FALSE

OPTIONS:

0 - Quit

1 - Print my Spaceship's info

2 - Give my Spaceship a new name

3 - Give my Spaceship a new crew size

4 - Give my Spaceship a new impulse speed

5 - Set shields up

6 - Set shields down

7 - Prepare for battle

8 - End the battle

9 - Get travel time (in days)

Choose what to do next: 4

What's the new impulse speed? 100000

OPTIONS:

0 - Quit

1 - Print my Spaceship's info

2 - Give my Spaceship a new name

3 - Give my Spaceship a new crew size

4 - Give my Spaceship a new impulse speed

5 - Set shields up

6 - Set shields down

7 - Prepare for battle

8 - End the battle

9 - Get travel time (in days)

Choose what to do next: 5

Setting shields up.

OPTIONS:

0 - Quit

1 - Print my Spaceship's info

2 - Give my Spaceship a new name

3 - Give my Spaceship a new crew size

4 - Give my Spaceship a new impulse speed

5 - Set shields up

6 - Set shields down

7 - Prepare for battle

8 - End the battle

9 - Get travel time (in days)

Choose what to do next: 2

What's the new name? MillenialFalcon

OPTIONS:

0 - Quit

1 - Print my Spaceship's info

2 - Give my Spaceship a new name

3 - Give my Spaceship a new crew size

4 - Give my Spaceship a new impulse speed

5 - Set shields up

6 - Set shields down

7 - Prepare for battle

8 - End the battle

9 - Get travel time (in days)

Choose what to do next: 3

Whats the new crew size? 20

OPTIONS:

0 - Quit

1 - Print my Spaceship's info

2 - Give my Spaceship a new name

3 - Give my Spaceship a new crew size

4 - Give my Spaceship a new impulse speed

5 - Set shields up

6 - Set shields down

7 - Prepare for battle

8 - End the battle

9 - Get travel time (in days)

Choose what to do next: 1

Name: MillenialFalcon

Crew Size: 20 crew members.

Impulse Speed: 100,000 km/sec.

Shields Up: TRUE

OPTIONS:

0 - Quit

1 - Print my Spaceship's info

2 - Give my Spaceship a new name

3 - Give my Spaceship a new crew size

4 - Give my Spaceship a new impulse speed

5 - Set shields up

6 - Set shields down

7 - Prepare for battle

8 - End the battle

9 - Get travel time (in days)

Choose what to do next: 0

Bye...