STAR TREK PROJECT

Developed by:

Gurankash Singh

Narayan Jat

Adish Bitra

Contents

Star Trek Online

Introduction

Star Trek has worked to capture the imagination of many over the years. It is based on the idea of science fiction which cultivates new ideas and notions to allow supremacy over the elements and dominating at a universal level. This works to attract attention of the people as humans are driven by curiosity and notion to achieve things beyond the limits proposed by the current technology and the laws of physics. Star trek displays a type 2 civilization that has colonized a few star systems and seems immune from destruction as they have control over phenomenon such as a super nova, asteroid collision and other events that could wipe out a civilization. However, we are currently a type 0 civilization that is in the transition period for becoming a type 1 civilization as we are beginning to gain planetary control. Therefore, this huge civilization gap prompts curiosity attracting human attention. However, the idea of a type 2 civilization can be extremely confusing as it can be difficult to understand the leaps in technology that would be required for such an advancement. This confusion can divert people from this fascinating concept that promotes interest among people towards subjects such as physics and mathematics etc. As a result, to generate greater interest among people towards research and education, Star trek Online was created in an attempt to answer any complex questions that the people have about technology in star trek, using real physics concepts. Also, Star Trek Online promotes innovation along with learning as the users will also be able to convey their ideas to others. All in all, the purpose of Star Trek Online is to provide an educational interface that would work to enrich the user's knowledge promoting a generation with a higher intellectual.

What is Star Trek Online

Star Trek Online is an educational interface based on the Star Trek theme which enables the user to establish contact with team of professionals including theoretical physicists, leading scientists, and individuals who have worked to design Star Trek. The user will be able to ask questions of choice regarding the technologies and concepts used in Star trek or any other related technological concepts, For example- Worm holes, Black holes, Anti-matter etc.

Fig 1: Provides a graphical representation of Star Trek Online, Hub being the team of experts
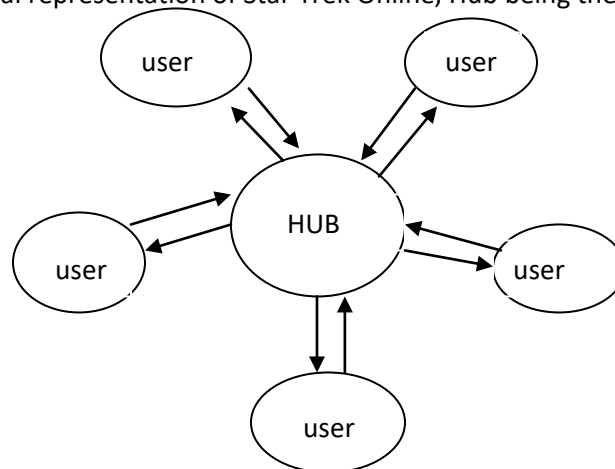
However, In order to say put to Stark Trek theme, the presentation of the Program was altered. Therefore, instead of just being like any other normal interface, the program is structured in a similar fashion as a Star Trek Fleet. The change can be seen in the following diagram.
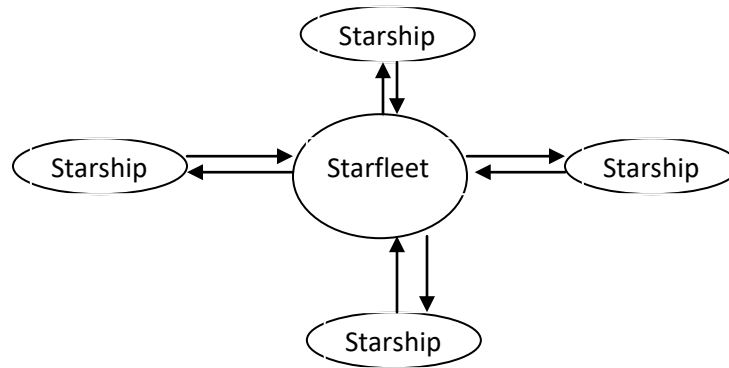

Fig 2: Graphical representation of final design for Star Trek Online following the Star Trek Theme

This makes the interface more exclusive making it optimum for Star Trek and Science fiction Fans.

Key Features

Organize ship:

This feature allows the user to customize their ship. User is made the captain of the ship and has the freedom to create any personnel aboard the ship and view, modify or change their attributes at his/her discretion.

Logs: This feature acts as a "dairy" allowing the user to record any personal messages or major events. The user is free to hold any information in the logs.

Weapons:

This option allows the user to access the different weapons on the ship. The user will be given information about the weapon he/she chooses. This will acknowledge the user about the technologies that would be possible in the future. Further, this option emphasizes education as the weapons will be upgraded when the user learns about different planets provided in the Explore feature.

Explore:
This feature is essentially an educational tool which allows the users to learn about different planets. The information given includes the location of the planet, atmospheric condition, type of life forms, resources present on the planet, etc. Also, as a reward the weapons on the starship will be upgraded as more planets are explored.

News Archive:

This feature allows the hub or the Starfleet to interact with the starship or the user. It enables the Starfleet to answer any question posted by the ship in the forums or convey any news worthy event such as addition of new planets in the list, any recent technological discoveries etc.
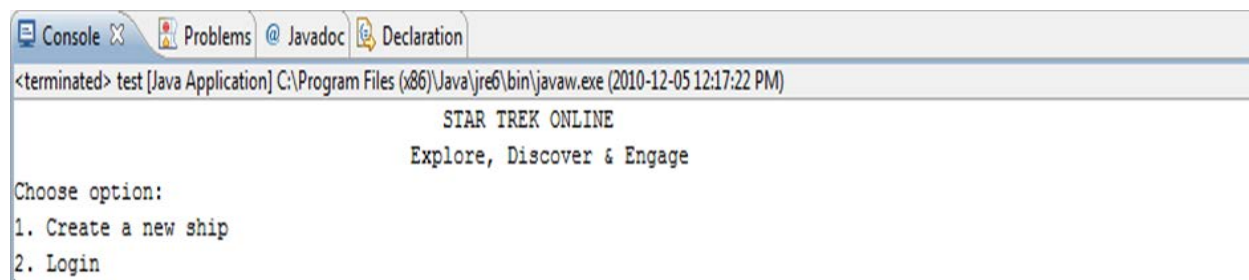
Forums:

This feature allows the user or the Starship to interact with the hub or the Starfleet. Using this option, the user can ask any desired questions or provide any suggestions.

Note: In all the screens that will be presented in this manual, the sample input is not necessarily valid in all cases. The writing in black is what the program will print while the writing in green is user input.

Getting Started
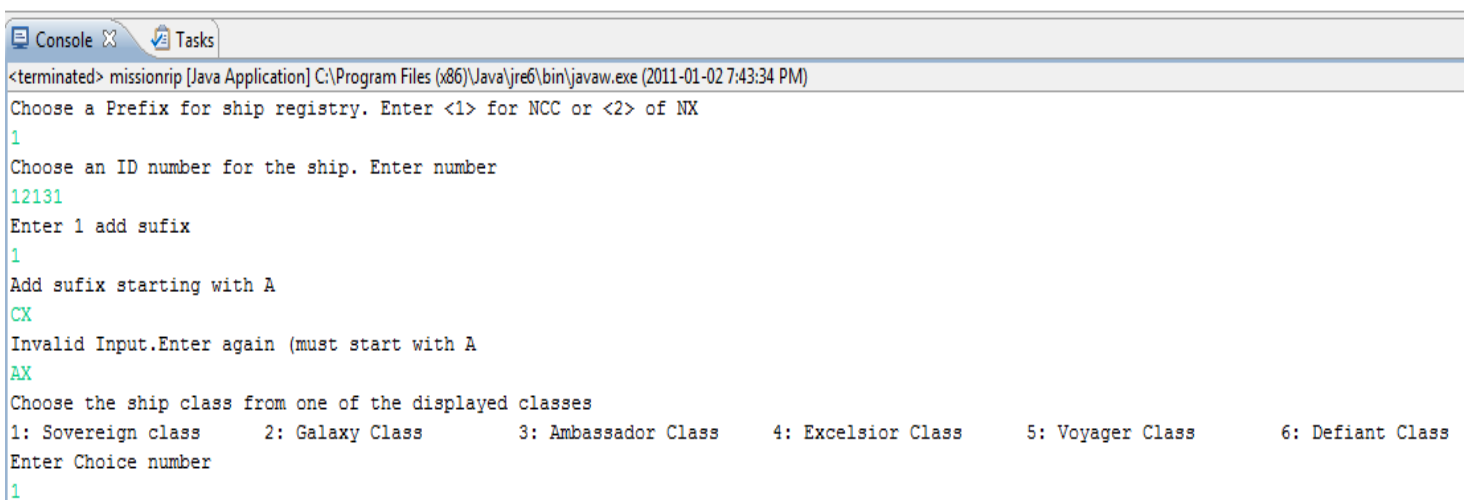This is the first screen that will be displayed to the user.

If the user enters one, he/she would be directed to this window to enter some attributes regarding the ship.

Once the user enters all the appropriate information, he/she will be directed to this screen.
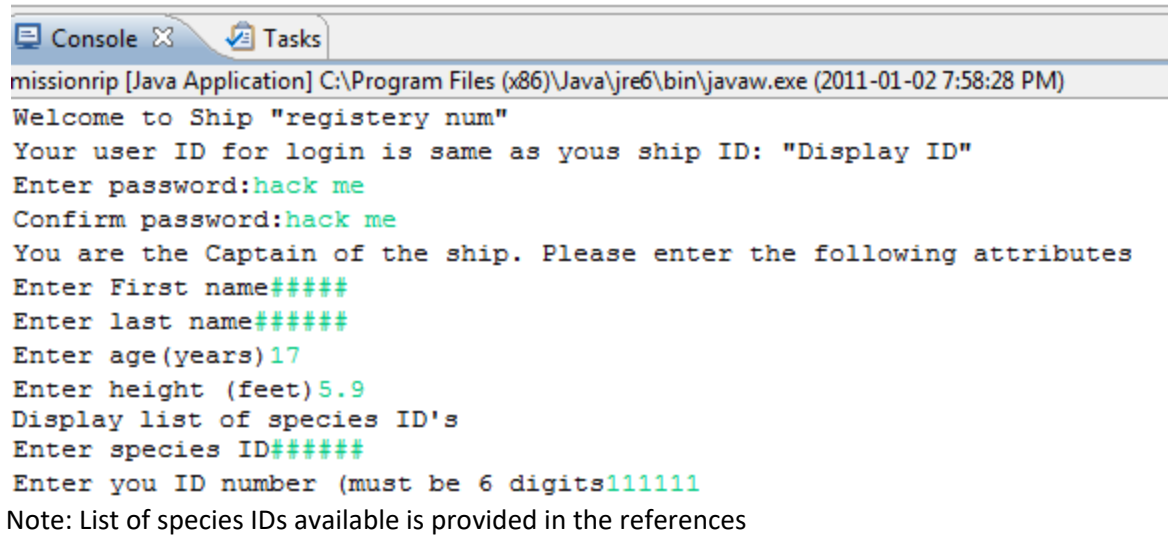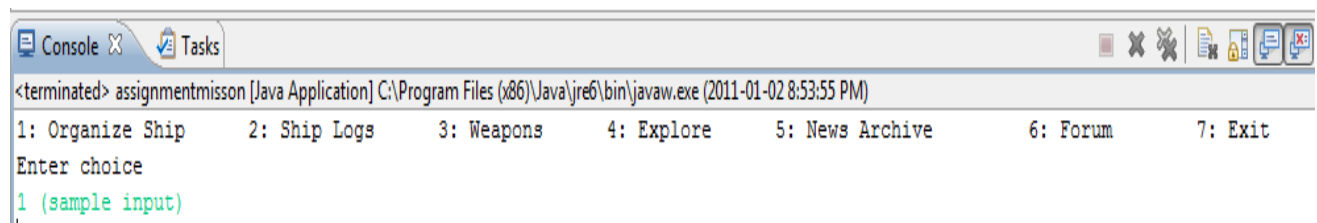
```
Console ✕    Tasks
missionrip [Java Application] C:\Program Files (x86)\Java\jre6\bin\javaw.exe (2011-01-02 7:58:28 PM)
Welcome to Ship "registery num"
Your user ID for login is same as yous ship ID: "Display ID"
Enter password:hack me
Confirm password:hack me
You are the Captain of the ship. Please enter the following attributes
Enter First name#####
Enter last name######
Enter age(years)17
Enter height (feet)5.9
Display list of species ID's
Enter species ID######
Enter you ID number (must be 6 digits111111
```
Note: List of species IDs available is provided in the references

After the user enters all the attributes prompted in the previous screen, he/she is directed to the following window. This window offers variety of options all of which are discussed in the key features. If the user has already signed up before, he/she will also be directed to this page after entering their user ID and password.
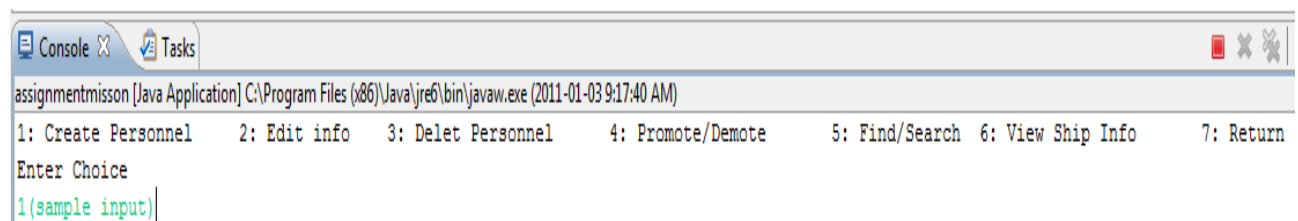
```
Console ✕    Tasks                                              ■ ✕ ✖ | ▣ ▣ ▣ ▣ ▣
<terminated> assignmentmisson [Java Application] C:\Program Files (x86)\Java\jre6\bin\javaw.exe (2011-01-02 8:53:55 PM)
1: Organize Ship    2: Ship Logs    3: Weapons    4: Explore    5: News Archive    6: Forum    7: Exit
Enter choice
1 (sample input)
```

From this screen (main menu) the user can access any of the options by entering the option *number* (1-5). A detailed explanation for how to use each option is provided next.

Organize ship
To select the *Organize ship* option from the main menu, Enter 1.
The following screen will be displayed.

```
Console ✕    Tasks                                              ■ ✕ ✖
assignmentmisson [Java Application] C:\Program Files (x86)\Java\jre6\bin\javaw.exe (2011-01-03 9:17:40 AM)
1: Create Personnel    2: Edit info    3: Delet Personnel    4: Promote/Demote    5: Find/Search  6: View Ship Info    7: Return
Enter Choice
1(sample input)
```
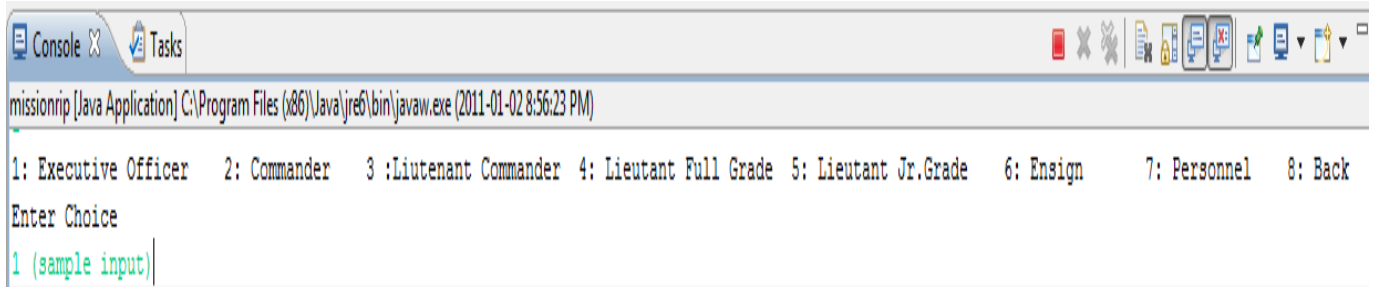
1:
Create Personnel
This option allows the user to create a personnel of their choice (Personnel, Ensign, Lieutenant Junior grade, Lieutenant Full Grade, Lieutenant Commander, Commander, Executive Officer). When the user selects this option, the following screen is displayed.
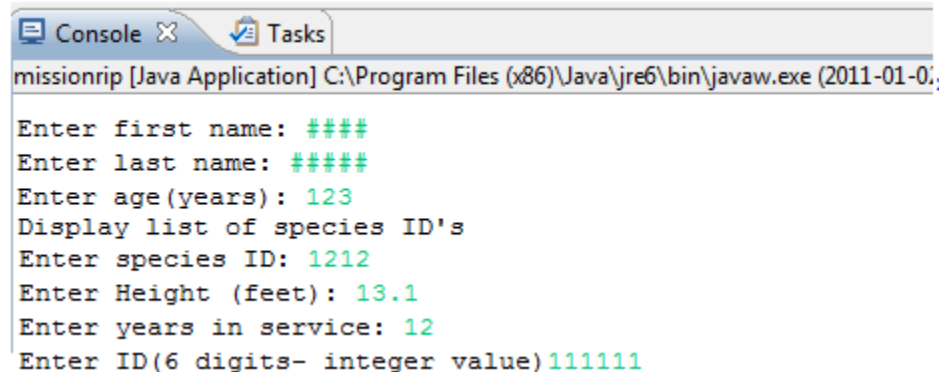
```
1: Executive Officer    2: Commander    3 :Liutenant Commander  4: Lieutant Full Grade  5: Lieutant Jr.Grade    6: Ensign     7: Personnel    8: Back
Enter Choice
1 (sample input)
```

Creating a Personal

To create a simple personnel who is not an officer on the ship, Enter 7 as choice.

The user will be prompted for certain attributes as displayed in the following screen.


```
Enter first name: ####
Enter last name: #####
Enter age(years): 123
Display list of species ID's
Enter species ID: 1212
Enter Height (feet): 13.1
Enter years in service: 12
Enter ID(6 digits- integer value)111111
```

Note- ID, Species ID must be an Integer value (List of available species ID is provided in user reference section). In addition, the ID must be distinct, meaning it must not match the ID of any other personnel (including officers) on the ship and must be 6 digits.

Creating Officer (Executive, Commander, Lieutenant(s), Ensign)

If the user chooses to create an officer by entering the appropriate number specifying the type of officer, he/she will have to fill out attributes similar to that displayed for personnel in the previous screen however more fields and certain conditions will be added depending on the type of officer. The added fields and condition associated with each officer are indicated below.

Executive Officer: The user must also select a department (either command or medical)

Commander: The user must select a department (either commander or medical). Also, the user must indicate if they want the commander to also be the department head. The following screen displays how this works.

```
Console ⊠    Tasks
missionrip [Java Application] C:\Program Files (x86)\Java\jre6\bin\javaw.exe (2011-01-02 8:56:23 PM)
Enter department: for Command: 1, Medical: 2, Sciences: 3, Security: 4, Enginnering 5    1
1
Enter 1 to make the commander dept head or any other num to decline
1
The Department must be set to Medical in order to make the commander dept. head.
Enter 1 to change department or any other num to indicate cancel dept. head request
1
Enter department: for Command: 1, Medical: 2, Sciences: 3, Security: 4, Enginnering 5    3
```

Note: The user selected Command as the department for the commander. The user then proceeded to make the commander dept. head which requires him to be from medical department. Therefore, the program gave the user, the option to either cancel request of dept. head or to change dept. The user entered 1 choosing to proceed with the request therefore in this case; the program would change the department of the commander automatically to Medical.

The following officer cannot be created unless a Commander has already been created. This is because the officer requires commanding officers to act as a supervisor.
Lieutenant Commander- User must select a department (any). The user must indicate if he/she wants the Lieutenant Commander to also serve as a dept. head. The user must also select a commanding officer to act as a supervisor (The process to select supervisor is indicated in the screen below with appropriate title).

The following officers cannot be created unless a Lieutenant Commander has been created who is also a department head for any of the five departments.
For Lieutenant Full grade and Lieutenant Junior grade the user must select department (any). The user must also indicate a Lieutenant commander to act as a supervisor (The process to select supervisor indicated in the screen below with appropriate title.)
Ensign- The user must select department (any). The user must indicate a lieutenant commander to act as supervisor and a commander to act as a mentor (The screens below show the process for selecting a supervisor and a mentor).
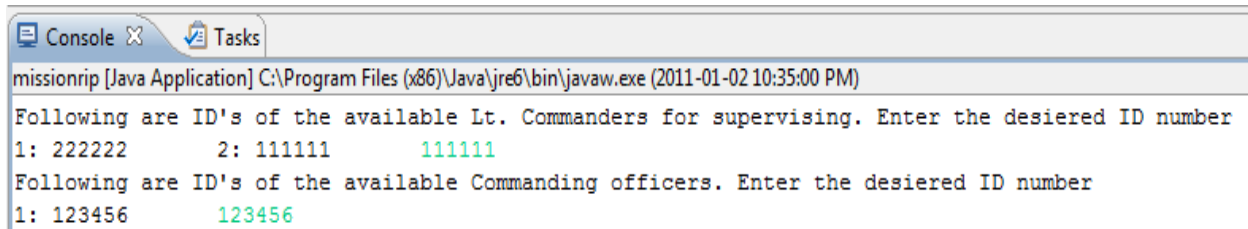
Selecting a supervisor

```
Console ⊠    Tasks
missionrip [Java Application] C:\Program Files (x86)\Java\jre6\bin\javaw.exe (2011-01-02 10:35:00 PM)
Following are ID's of the available for supervisors. Enter the desiered ID number
1: 222222        2: 111111        111111(sample input)
```

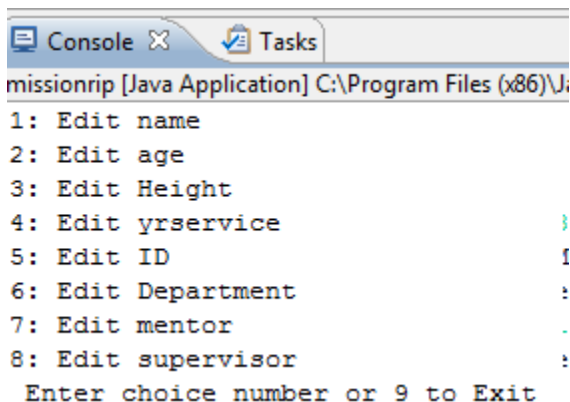**Selecting a mentor and supervisor for ensign**

```
Console X    Tasks
missionrip [Java Application] C:\Program Files (x86)\Java\jre6\bin\javaw.exe (2011-01-02 10:35:00 PM)
Following are ID's of the available Lt. Commanders for supervising. Enter the desiered ID number
1: 222222       2: 111111        111111
Following are ID's of the available Commanding officers. Enter the desiered ID number
1: 123456       123456
```

Note: Both for selecting a supervisor or a mentor, the user is displayed with available ID's. The user can decide to choose any ID for supervisor or mentor from the given IDs as desired. However, the user must make sure that he/she enters a valid ID number (from the ones that are displayed) otherwise the program will continually prompt until a valid ID is entered.
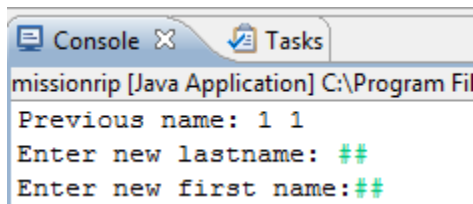
2:
Edit Info **(sub menu option) :** This option allows the user to edit the info of a created personal. If the user selects this option, a screen is displayed that asks for the ID number of the personal to be edited. (If the user is not sure of the ID of the personal he/she wants to edit then he/she can find the ID of a personal using the Find/Search option).
After the user enters the ID number of the officer to be edited, the following screen is displayed.

```
Console X    Tasks
missionrip [Java Application] C:\Program Files (x86)\J;
1: Edit name
2: Edit age
3: Edit Height
4: Edit yrservice              }
5: Edit ID                     1
6: Edit Department             :
7: Edit mentor                 .
8: Edit supervisor             :
  Enter choice number or 9 to Exit
```
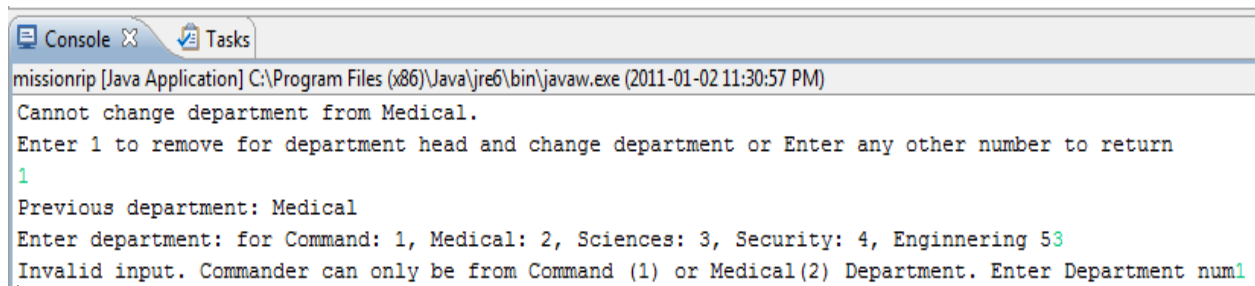
This screen allows the user to edit several different fields associated to the officer that they have selected. When the user selects an option he is displayed with previous information stored for the selected attribute and is prompted for new information. For example, if user enters 1 as a choice in the previous screen he would be displayed with the following screen.

```
Console X    Tasks
missionrip [Java Application] C:\Program Fil
Previous name: 1 1
Enter new lastname: ##
Enter new first name:##
```

Also, some special conditions may persist when dealing with individual options

1) The new ID number may be the same as the old one however it must not match the ID of any other personnel aboard the ship. The program will continue to prompt until the condition is satisfied.

2) The new species ID must be valid otherwise the program will continue to prompt until the condition is satisfied.

3) If, the type of personnel selected by the user is not an officer then choosing any option from 6-8 will display an error message stating that the personnel selected is not an officer and the user will be returned to the screen displaying the 8 options for editing.

4) Further, option 7 is only for the lieutenants (all 3 type) and Ensigns while option 8 is exclusively for Ensigns. An attempt to access these options with personnel of any other type will lead to an error message stating that the type of personnel selected does not have the given attribute and the user will be returned to the screen displaying the 8 options for editing.

5) When attempting to change departments for a commander, an executive officer or captain (user's own), the available option is only Command with addition of medical for commander. Also, if the commander is a dept. head, the available option is only medical unless the user indicates that he wants to remove commander from being the dept. head. An attempt to select any other department will lead to an error message stating that the officer must only belong to the given departments. The following screens shows an attempt to change department for a commander.

```
Console ☒   Tasks
missionrip [Java Application] C:\Program Files (x86)\Java\jre6\bin\javaw.exe (2011-01-02 11:30:57 PM)
Cannot change department from Medical.
Enter 1 to remove for department head and change department or Enter any other number to return
1
Previous department: Medical
Enter department: for Command: 1, Medical: 2, Sciences: 3, Security: 4, Enginnering 53
Invalid input. Commander can only be from Command (1) or Medical(2) Department. Enter Department num1
```

In this case, the selected commander is also a dept. head therefore the program warns the user that department cannot be changed from medical and then provides the option that the user can remove the commander from being the dept. head and then choose the desired department. The user wishes to continue with changing department (the program would automatically remove the commander from being dept. head). However h/she must still choose from command or medical department.

6) When changing the supervisor for lieutenants (all 3 types) or supervisor and mentor for an Ensign, the user must go through the similar process for selecting a supervisor, as in the Create personal option (when creating a lieutenant (any type) or Ensign). The user will be first displayed with previous supervisor or a mentor ID and then a list will be displayed of all possible supervisors and mentor IDs available (including the previous one), the user can enter the desired ID. The new ID must match one of the ID's displayed. If this condition is not complied with, the program will display an error message and continue to prompt until a valid ID is entered.

Every time the user selects and goes through an option he/she will be returned to the screen displaying the 8 options until he/she enters 9 to Exit.

3:

Delete – This option allows the user to delete a personal aboard the ship. When the user chooses this option he/she is displayed with the following screen.
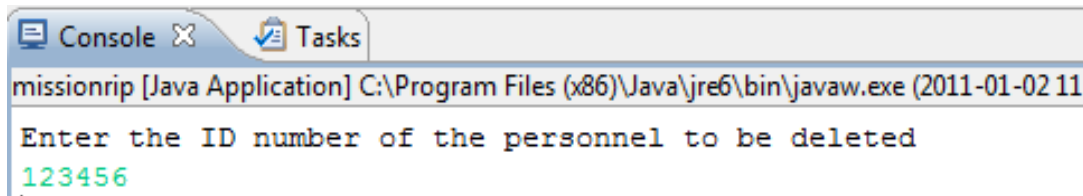
The Personal with the given ID would be permanently deleted and the user will be returned to the menu (sub menu for the option Organize ship in the main menu).

However certain conditions apply when creating one of the following officers:

Commander and Lieutenant Commander: If the user attempts to delete a commander or Lieutenant Commander , the program will give the user the option to transfer the supervising responsibilities of the officer to another officer of the equivalent rank (commander responsibilities can only be shifted to a commander and lieutenant commander responsibilities can only be shifted to a lieutenant commander). Or the user has the second option to create another officer of the equivalent rank to take over the responsibilities. If there is no other officers of the equivalent rank available then the program would force the user to create new personnel to replace the one being deleted. Selecting an officer of equivalent rank to take over responsibilities would follow the same process as selecting supervisor for a lieutenant (any type) or an Ensign as discussed in Option 1- Create Personnel and Option 2- Edit info. The user will be displayed with the list of ID's of available officer's of equivalent rank and the user can enter the desired ID. If the user chooses to create a new personal of equivalent rank then he must follow the same procedure as creating a personal of that type using Option 1: Create Personnel. The responsibilities are automatically transferred and the user is returned to the menu.

Captain: the user is not allowed to delete a captain. However Captain can be retired/deleted using the promote option.

4:

Promote/Demote – This option allows the user to either promote or demote a personal. If the user chooses this option, the program prompts the user for the ID number of the personal to be promoted or demoted. The user is then displayed with the following window.
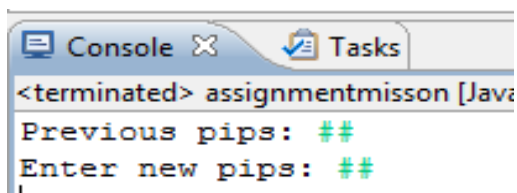
The rank of the personnel is changed according to the amount of pips entered. However the input must be valid, the user cannot enter 0 pips for example, and the pips must represent a rank.

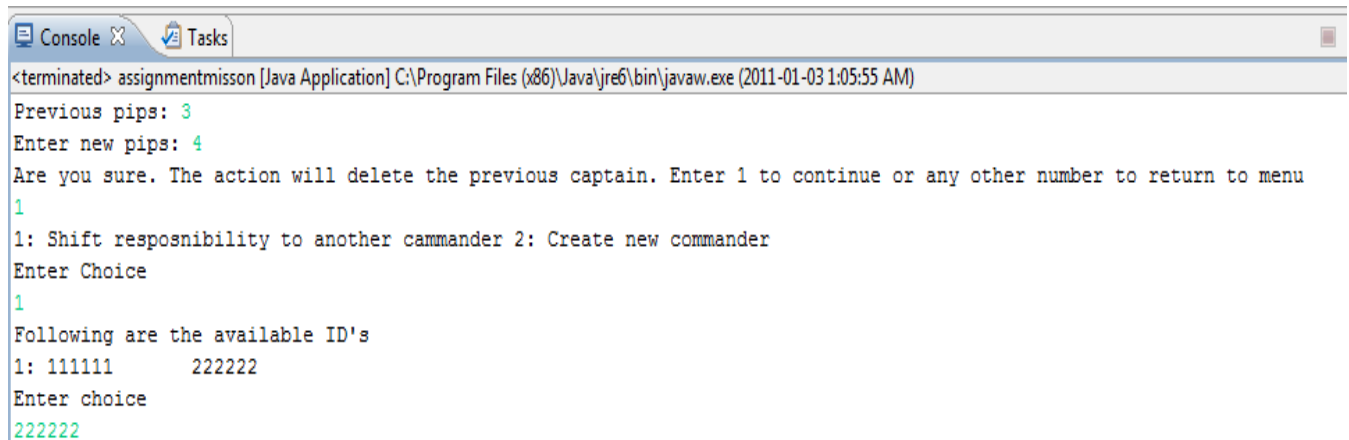Also, certain condition imply depending on the rank.

Commander and Lieutenant Commander: If a commander is promoted to a position higher or lower, the responsibilities of the commander must be transferred to some other officer or the equivalent rank or by creating a new personal. Same guidelines apply as deleting a commander or Lieutenant Commander outlined in option 3

Captain- If altering the rank of a captain, the user must create a new captain as there are no other captains available to transfer the responsibility to. The captain will be created in the same manner as created initially (user will enter the same attributes).

Promoting to the rank of Commander or Executive: The personal being promoted must be from the command department for executive officer and command or medical department for commander. If this condition is not followed an error message will be displayed and the user is returned to menu (submenu of main option Organize Ship from main menu.)

Promoting to the rank of Captain: The personal being promoted must be from the command department. Also, since a starship can only have one captain, the previous captain is automatically deleted (password and username still stay the same).

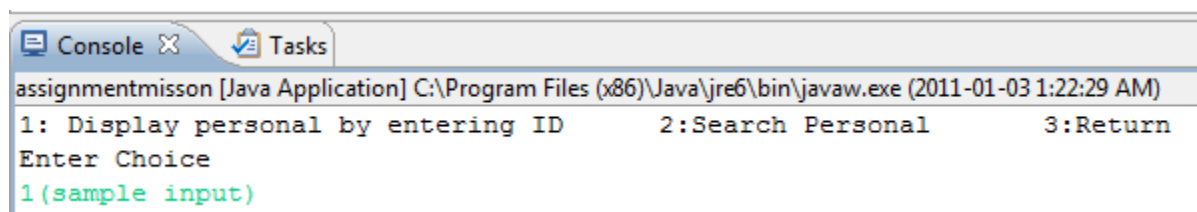The following is a demonstration for promotion of a commander under the command department

```
Console      Tasks
<terminated> assignmentmisson [Java Application] C:\Program Files (x86)\Java\jre6\bin\javaw.exe (2011-01-03 1:05:55 AM)
Previous pips: 3
Enter new pips: 4
Are you sure. The action will delete the previous captain. Enter 1 to continue or any other number to return to menu
1
1: Shift resposnibility to another cammander 2: Create new commander
Enter Choice
1
Following are the available ID's
1: 111111      222222
Enter choice
222222
```

After this screen the user will return to menu (submenu of Option 1: Organize ship of main menu)
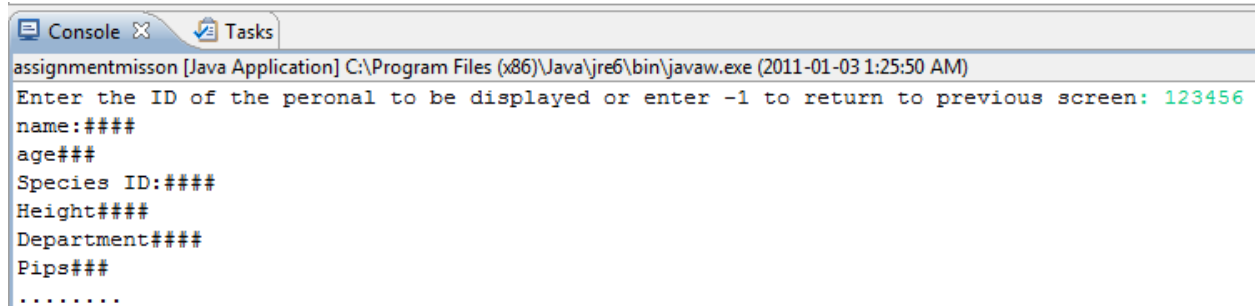
5:
Find/Search- This option allows the user to view the information of created personnel. If the user selects this option the following screen is displayed.

```
Console      Tasks
assignmentmisson [Java Application] C:\Program Files (x86)\Java\jre6\bin\javaw.exe (2011-01-03 1:22:29 AM)
1: Display personal by entering ID     2:Search Personal     3:Return
Enter Choice
1(sample input)
```

1: Display Personal by entering ID- The user should select this option if he/she knows the ID of the personal whose information is to be obtained. If the user selects this option, the program will prompt for an ID number until a valid ID is entered and then it will display all available information about the personal to whom the ID belongs. The following screen will be displayed if the user selects this option.
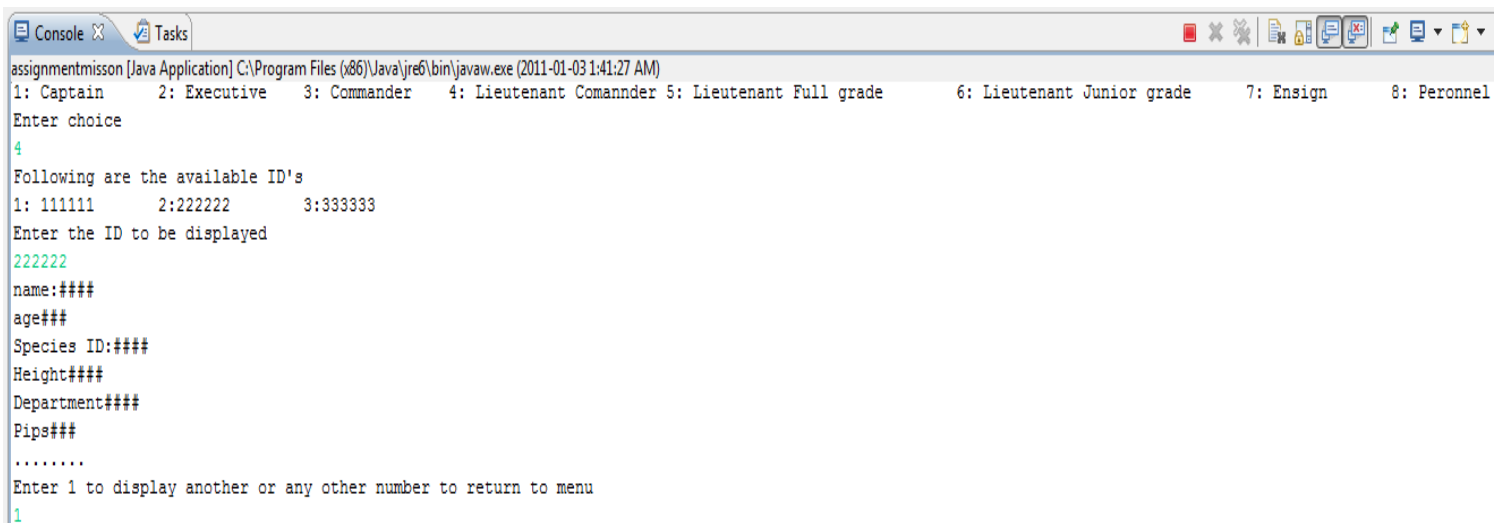

2: Search Personal: This option allows the user to isolate an ID that he/she might be looking for. To do so, it first displays all the different ranks as a list. Once the user selects the rank, he/she is displayed with ID's of all the personnel belonging to that rank. The user can then display each ID till he finds the right one. If the user selects this option, the following screen is displayed.
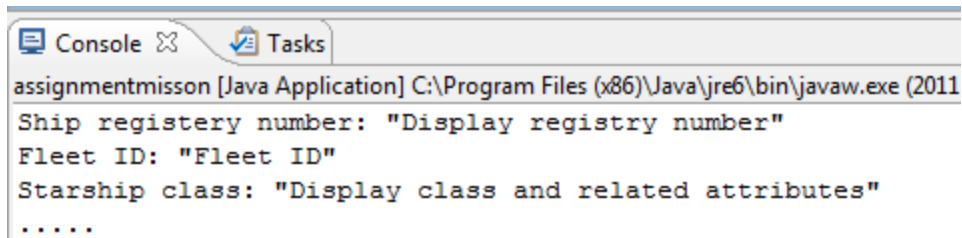

 If the user enters 1 he would be displayed the available ID's again and he can display a personal with a different ID. Or he can return to menu (sub menu of Option 1: Organize ship from main menu) and start a new search or choose any other option.

6:
View Ship info
 This option allows the user to view all starship attributes. For example- registry number, Ship class, Captain, Executive Officer, Fleet ID etc. If the user selects this option a screen similar to one below appears displaying all attributes of the ship
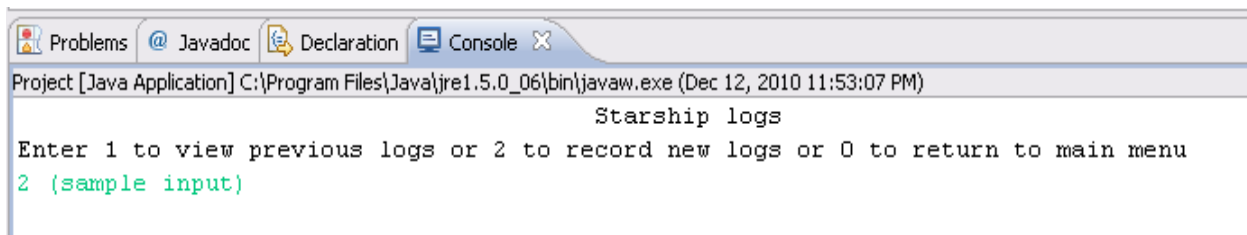
Note: Not all fields are displayed on this screen

Logs:

To Select the *Logs* option from the main menu, Enter 2.
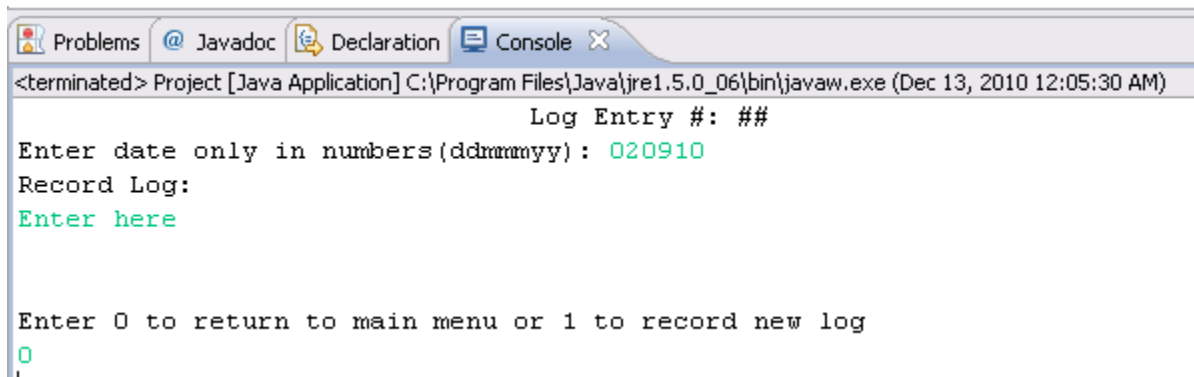The following screen will be displayed.

Once the user selects the option, he will be given the choice to either view previously recorded logs (the logs will be displayed in the order they were recorded) or to record new logs or to return to the main menu. The user must enter an integer value between 0-2 to indicate the choice.

Recording logs
If the user enters 2 as a choice, the following screen will be displayed.
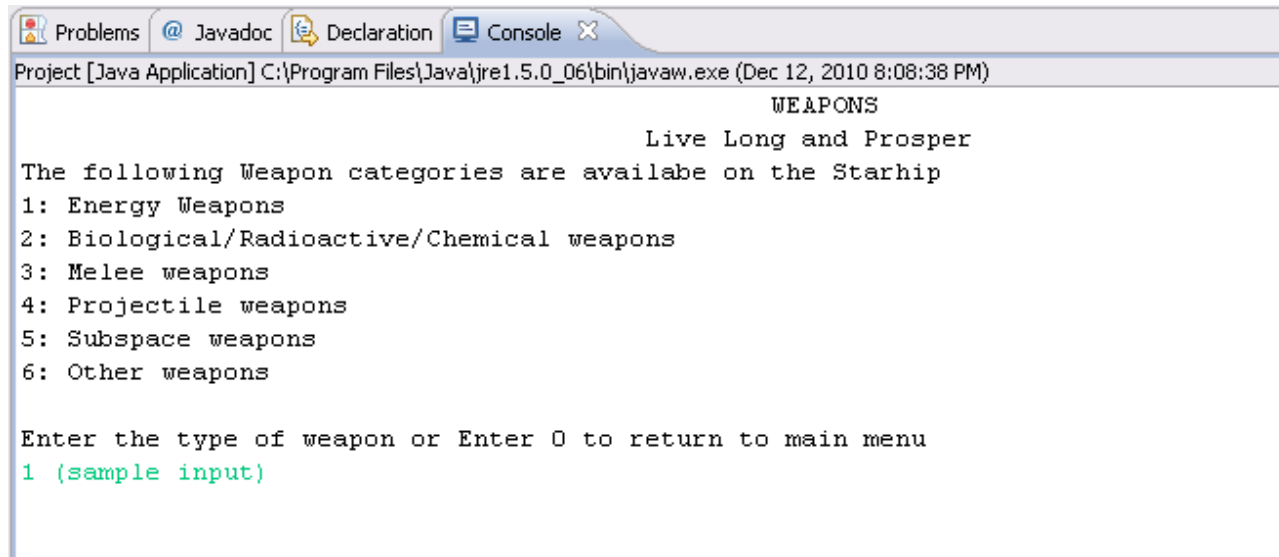

The user must enter the date and the choice at the end to either record more logs or to return to the main menu as an *integer value*. The log can be as long as needed but will be ended when the user presses *Enter*.

Weapons :

To Select the *Weapons* option from the main menu, Enter 3.
The following Screen will be displayed.

```
Problems  @ Javadoc  Declaration  Console  X
Project [Java Application] C:\Program Files\Java\jre1.5.0_06\bin\javaw.exe (Dec 12, 2010 8:08:38 PM)
                                      WEAPONS
                               Live Long and Prosper
The following Weapon categories are availabe on the Starhip
1: Energy Weapons
2: Biological/Radioactive/Chemical weapons
3: Melee weapons
4: Projectile weapons
5: Subspace weapons
6: Other weapons


Enter the type of weapon or Enter 0 to return to main menu
1 (sample input)
```
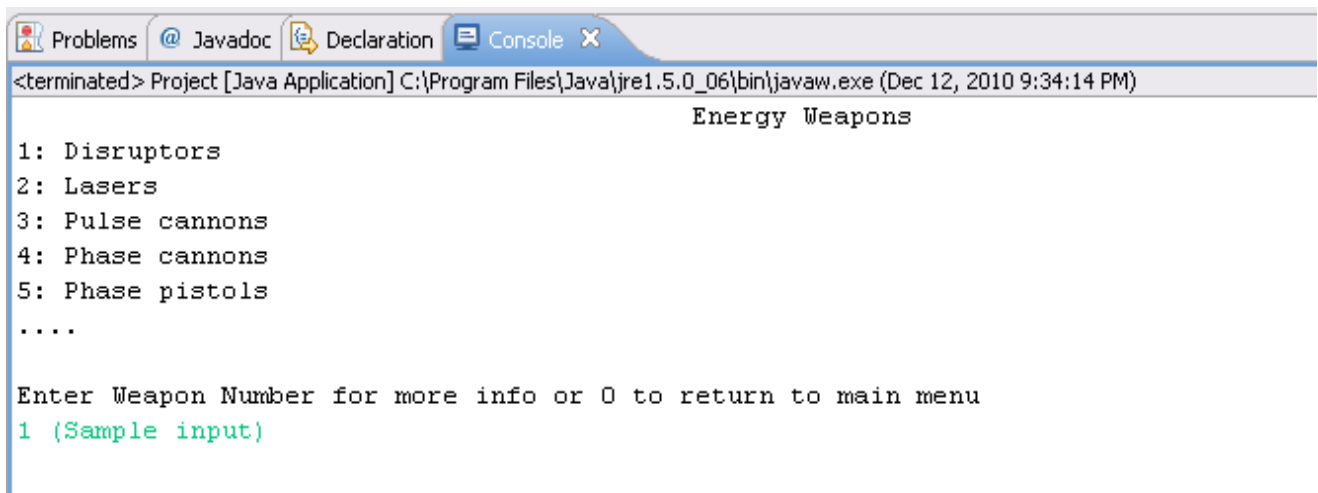
Once the user selects the type of weapon (In this case we will assume that the user Entered 1 for options, accessing the Energy weapons). The following screen will be displayed.

```
Problems  @ Javadoc  Declaration  Console  X
<terminated> Project [Java Application] C:\Program Files\Java\jre1.5.0_06\bin\javaw.exe (Dec 12, 2010 9:34:14 PM)
                                      Energy Weapons
1: Disruptors
2: Lasers
3: Pulse cannons
4: Phase cannons
5: Phase pistols
....


Enter Weapon Number for more info or 0 to return to main menu
1 (Sample input)
```

The user is displayed with different weapons belonging to the weapon type chosen. The user can now select the specific weapon to learn more about it. In this case we will assume the user entered 1. The following screen will be displayed.

The user will be provided knowledge about the special features of the weapon and how the weapon works. The efficiency of the weapon will depend on the level given to weapon. The level of the weapon will be improved as it is upgraded when the user uses the *Explore* feature to acquire further knowledge. The user is provided with the options to either return to the main menu or to go back to the weapon list provided in the previous screen presented.

Explore

To select the *Explore* Feature from the main menu, Enter 4.
The following screen will be displayed.

The user will be displayed with a list of planets to Explore. The user must enter an integer value to select a planet to explore (The number in front the planet's name is the number that should be entered to explore that planet). Once the selection is made, the user will be displayed with a screen presenting the information about the planet. Any weapon upgrades gained from exploring the planets will be automatically made and the user will be notified. The sample of a screen that will be displayed is provided below.

```
Problems  @ Javadoc  Declaration  Console  X
<terminated> Project [Java Application] C:\Program Files\Java\jre1.5.0_06\bin\javaw.exe (Dec 12, 2010 10:34:54 PM)
                                    Planet XXXXX
Planet classification:....
Description: .....
Resources: ....
Upgrades: Your Weapon X1X has been upgraded (Or None)


Enter 0 to return to Main Menu or Enter 1 to return to Planet list
0
```

Note: Planet Classification list is provided in the user reference section.

News Archive

To Select the *New Archive* option from the main menu, Enter 5.
The following screen will be displayed.

```
Problems  @ Javadoc  Declaration  Console  X
<terminated> Project [Java Application] C:\Program Files\Java\jre1.5.0_06\bin\javaw.exe (Dec 12, 2010 6:59:19 PM)
                                    News Archive
                              Live Long and Prosper
News:1
Your question: Your forum question displayed here
Your answer: Answer to your question displayed here

News:2
New Element Discovered on the planet XX01 in the X21 Star System
... Additional info on the news



Enter option
 1:Clear all and exit    2: Exit         3:Clear
|
```

On the screen, all the responses from the Starfleet or the hub for the forum question posted by the ship
or any important news from the hub will be displayed. Further the user will be given the following
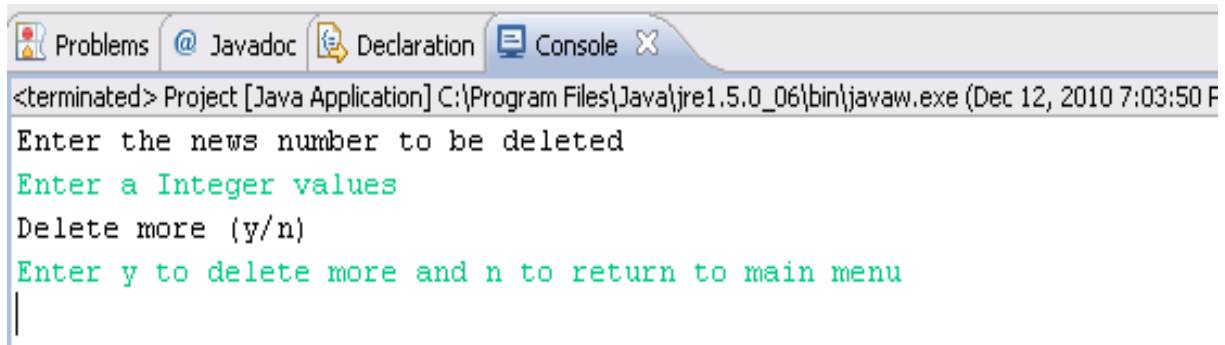options as displayed in the figure above.

1: Clear all and Exit
Enter 1 to select this option. This option will delete all the responses and return the user to the main
menu.

2: Exit
Enter 2 to select this option. This option returns the user to the main menu while saving all the
responses and news posts for a later view.

3: Clear

Enter 3 to select this option. This option allows the user to select individual posts to delete. The following screen will be displayed as this option is selected.
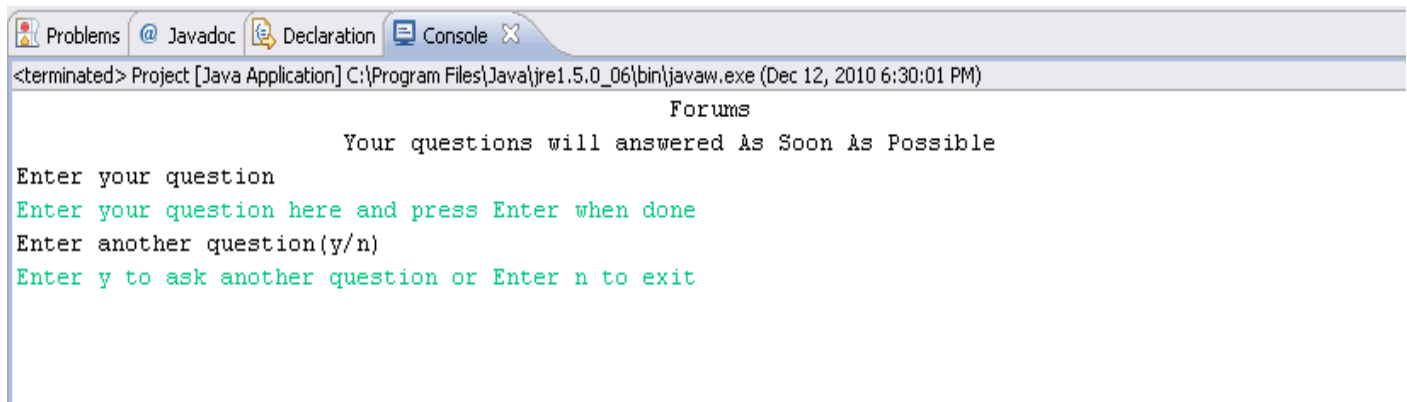
```
Problems  @ Javadoc  Declaration  Console  X
<terminated> Project [Java Application] C:\Program Files\Java\jre1.5.0_06\bin\javaw.exe (Dec 12, 2010 7:03:50 P
Enter the news number to be deleted
Enter a Integer values
Delete more (y/n)
Enter y to delete more and n to return to main menu
```

The user will be prompted for the News number to be deleted. The user is required an integer value, for example to delete News 1, the user will enter 1 (On top of every post a News # is displayed as shown in the previous screen). After the News # to be deleted is entered, the user is provided with option to delete another post by entering *<y>* or to return to main menu by entering *<n>.*

Forums:

To Select *Forum* option from main menu, Enter 6.
The following screen will be displayed.

```
Problems  @ Javadoc  Declaration  Console  X
<terminated> Project [Java Application] C:\Program Files\Java\jre1.5.0_06\bin\javaw.exe (Dec 12, 2010 6:30:01 PM)
                              Forums
                Your questions will answered As Soon As Possible
Enter your question
Enter your question here and press Enter when done
Enter another question(y/n)
Enter y to ask another question or Enter n to exit
```

Once the screen that appears, the user can enter their question. After the question has been entered the user will be given the option to post another question by entering < *y>* or to return to main menu by entering < *n>.*

Federation Species

Human   **ID: 001**
Leadership: +15% ship repair rate.
Teamwork: +5% team Exploit damage.

Andorian   **ID: 002**
Acute Senses: +20% Stealth Sight and +10% Exploit damage.

Bajoran   **ID: 003**
Creative: +5% damage and healing with Kits.
Spiritual: +10% heals received and +10% regeneration.

Benzite   **ID: 004**
Natural Armor: Resistant to Energy and Physical damage.
Natural Immunities: Radiation and Toxic damage resistance.

Betazoid   **ID: 005**
Empathic: Reduces threat generation, increases team regeneration.
Telepathic: Increases Perception, exposure duration and chance.

Bolian   **ID: 006**
Corrosive Blood: +20% Toxic resistance, deals Toxic damage when bitten.

Saurian   **ID: 007**
Circulatory Redundancies: Toxic, Fire and Plasma damage over time resistance.
Acute Senses: +20% Stealth Sight and +10% Exploit damage.

Trill   **ID**: **008**
Hyper Metabolism: Health regeneration; Radiation and Toxic resistance.

Vulcan   **ID: 009**
Logical: +30% Psionic, Confuse and Placate resistance.
Physical Strength: +10 Melee damage

Planet Classification

The Planet Classification System is a system developed by the United Federation of Planets to categorize planets by many factors, such as atmospheric composition, age, surface temperature, size, and presence of life.

Following are the classes of planets included in the Planet classification System:

Class D: Class D objects are planetoids like asteroids and some moons

Class H: Class H planets are harsh desert worlds.

Class J and Class T: Class J and Class T planets are designated as gas giants. Class J are smaller than Class T which are considered "super", or "ultra", gas giants - possibly even brown dwarfs on the verge of becoming stars.

Class K: Class K planets are barren worlds with no native life.

Class L: Class L planets are barely habitable worlds with primitive ecosystems.

Class M: Class M, or "Terrestrial", planets are the most commonly visited planets in the *Star Trek* series. They are named after the Vulcan term "Minshara" class. They have atmospheres comprised of nitrogen and oxygen but most importantly, they have plenty of liquid water necessary for carbon-based life to exist. Life is almost always present and is often flourishing as extensive plant and animal life. Usually, a sentient race is also present. Earth is a textbook example of a Class M world.

Class N: Class N planets have a reducing environment and are barren and rocky with extremely high surface temperatures caused by thick atmospheres containing carbon dioxide and corrosive sulfides.

Class Y: Class Y planets are referred to as "Demon" worlds, where surface conditions do not fall into any other recognized category. Such worlds are usually hostile and lethal to humanoid life. If life develops on these worlds they usually take on many bizarre forms, like living crystal or rock, liquid or gaseous physical states, or incorporeal, dimensional, or energy-based states.

Other classes

Class A, B and C – Typically small, young planets whose class depends on their age and solidity of their cores.
Class E, F and G – Typically, Proto-Earth-sized planets whose class depends on their age and solidity of their cores
Class I – Class of gas giant, larger than Class J, and smaller than Class S and T.
Class O and P – Planets covered almost completely with water (class O), or water-ice (Class P)
Class Q – Planets with continually changing environments caused by peculiar orbits, an orbit around a variable output star, or some other factor which causes conditions to drastically change overtime.
Class R – A rogue planetary body which is one that does not orbit a star but drifts freely in space.
Class S – Class of gas giant smaller than Class T and the next larger size up from Class I.
Class X and Z – Reserved for other designations of "demon" planets.

<div align="center">

Administrator Instruction
</div>

The program will provide separate options for the Administrator or team of experts belonging to the hub or star fleet, as identified in the program. Using the functions provided, the Administrator would be able to answer any questions posted by the user or update the program through adding new weapons or planets etc.
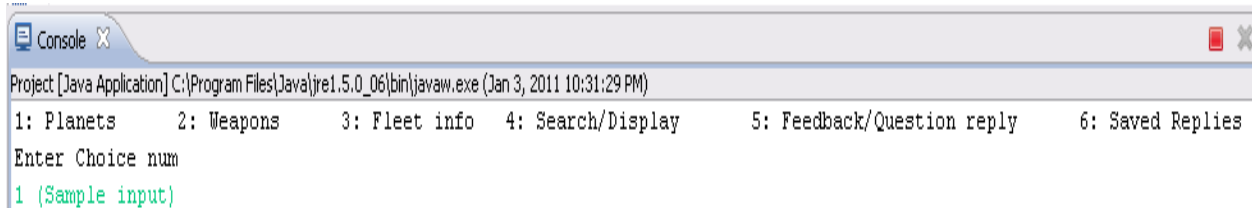
Getting Started

When the administrator loads up the program he/she will be displayed with the normal login screen as to typical user however entering the following user name and password would direct the administrator to a different screen.

Username: 101101
Password: Chen

Once the Administrator logs in using the username and password provided above, the following screen will be displayed.
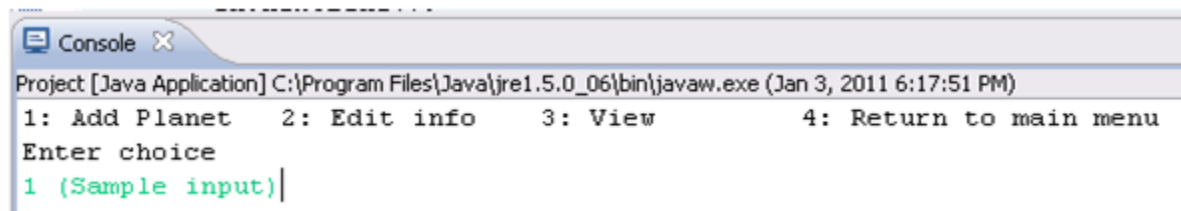
```
Console ⊠                                                                    ■ ✖

Project [Java Application] C:\Program Files\Java\jre1.5.0_06\bin\javaw.exe (Jan 3, 2011 10:31:29 PM)
1: Planets      2: Weapons      3: Fleet info    4: Search/Display      5: Feedback/Question reply      6: Saved Replies
Enter Choice num
1 (Sample input)
```

Managing Planets

1: Planets: This option allows the Administrator to add, edit or view info about a planet. If the Administrator selects this option, the following menu is displayed.

```
Console ⊠

Project [Java Application] C:\Program Files\Java\jre1.5.0_06\bin\javaw.exe (Jan 3, 2011 6:17:51 PM)
1: Add Planet    2: Edit info     3: View          4: Return to main menu
Enter choice
1 (Sample input)
```

Submenu for Option 1: Planet

1: Add Planet- This option allows the user to create new planet at user requests or at his/her own discretion as new planets are discovered and researched. If the user selects this option, he/she would have to enter several attributes about the planet displayed in the following screen.

Once the user enters all the required attributes he is returned to the submenu of option **1: Planet** (main menu)

Note: No two planets will be allowed to have identical ID. The program will continually prompt until valid input is provided. If the Administrator is not sure about the weapon number (ID), he/she can find a weapon ID by selecting the view option after selecting the second option Weapon from the main menu.

2: Edit Info: This option allows the Administrator to edit different attributes of a planet. To use this option, he/she must know the ID number of the planet to be edited. If Administrator is not sure about the ID number, View Info option can be used to find ID of a planet (Explained next). If the Administrator selects the Edit planet option, the program will prompt for ID of the planet to be edited. The program will continually prompt until a valid ID is entered or the Administrator chooses to exit by entering -1 as input which would return him/her to the submenu. If the user enters a valid ID, the following screen will be displayed.

From this screen, the Administrator can choose the field they would like to edit by entering the option number. For each option, the Administrator will first be displayed the information previously stored in the field and then prompt for new information to be stored. The following screen provides an example for this; we will assume that the user entered 1 as choice.
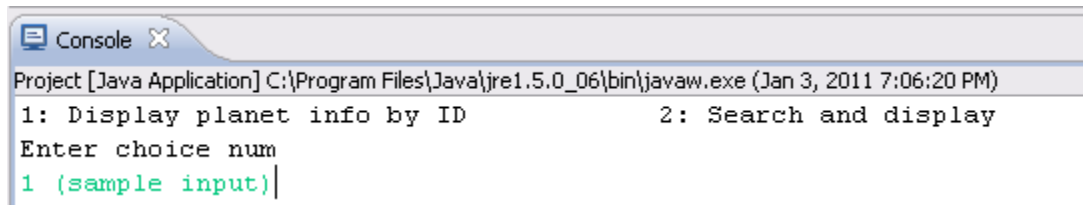
After making the change, the Administrator will be returned to the previous menu to make any further changes.

3) View: This option allows the Administrator to view complete information about a selected a planet. The Administrator can do this in two different ways. The following screen which will appear when the Administrator selects this option, displays the two options.
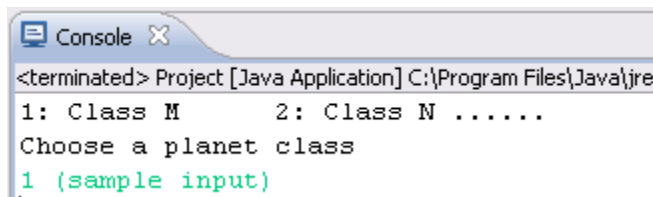
```
Console ⊠
Project [Java Application] C:\Program Files\Java\jre1.5.0_06\bin\javaw.exe (Jan 3, 2011 7:06:20 PM)
1: Display planet info by ID          2: Search and display
Enter choice num
1 (sample input)
```

1: Display planet info by ID: The administrator should select this option only if he/she is sure about the planet ID for desired planet. When the administrator enters a valid ID, he/she is displayed with complete information about the selected planet.

2: Search and display: If the administrator selects this option, the following screen will be displayed with different class types.
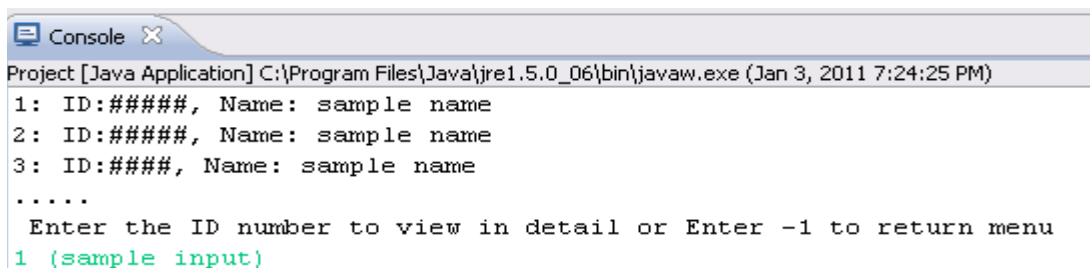
```
Console ⊠
<terminated> Project [Java Application] C:\Program Files\Java\jre
1: Class M       2: Class N ......
Choose a planet class
1 (sample input)
```

Once the administrator selects a planet class, the ID's and name of each planet in the class will be displayed and from there the user can select the ID number he/she wants to view in complete detail. The following class provides sample screen where we assume that the person chose class M.
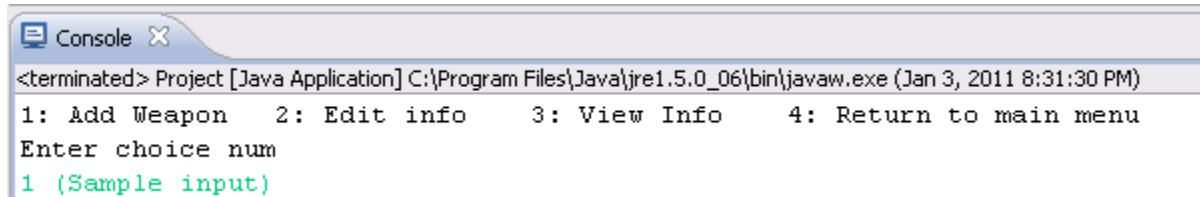
```
Console ⊠
Project [Java Application] C:\Program Files\Java\jre1.5.0_06\bin\javaw.exe (Jan 3, 2011 7:24:25 PM)
1: ID:#####, Name: sample name
2: ID:#####, Name: sample name
3: ID:####, Name: sample name
.....
 Enter the ID number to view in detail or Enter -1 to return menu
1 (sample input)
```

Managing Weapons

2: Weapons (main menu): This option from the main menu is similar to Option 1: **Planet,** however this option allows the administrator to add, edit or view info about a weapon rather than a planet.
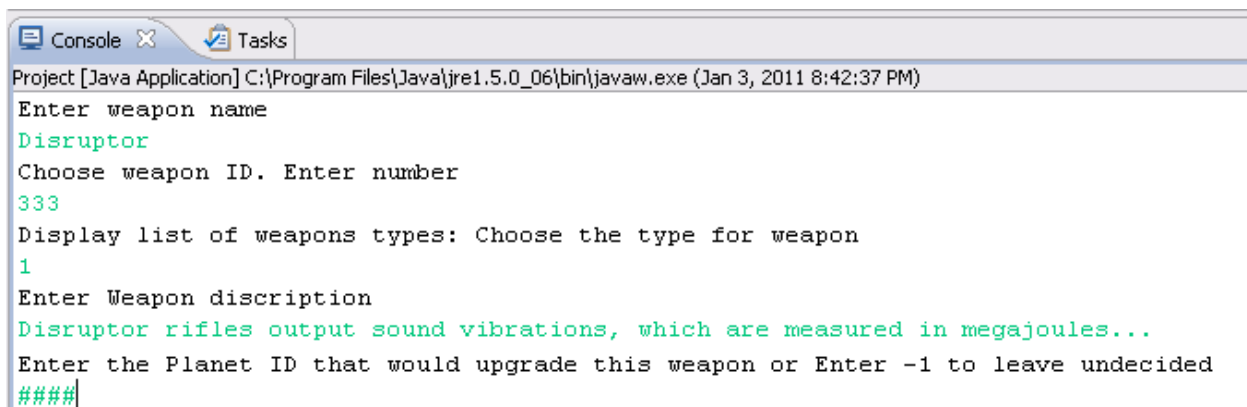
If the Administrator chooses this option, the following screen will be displayed.

1: Add Weapon: This option allows the Administrator to create new weapon at user requests or at his/her own discretion as new weapons are developed and researched. If the user selects this option, he/she would have to enter several attributes about the Weapon displayed in the following screen.

Once the user enters all the required attributes he is returned to the submenu of option **2: Weapon** (main menu)

Note: No two Weapons will be allowed to have identical ID. The program will continually prompt until valid input is provided. If the Administrator is not sure about the planet ID, he/she can find a Planet ID by selecting the view option after selecting the first option Planet from the main menu. All weapon levels are initially set to 1 and changed as they are upgraded.

2: Edit Info: This option allows the Administrator to edit various attributes of a selected weapon and works in the similar fashion as the Edit info option of Option **1: Planet** from main menu. The Administrator is still provided with a list of parameters to choose from to edit however the attributes are changed to Weapon name, Weapon ID, Weapon type, Description and Planet ID. For detailed info on how to use this option refer to Edit info option provided in the submenu of option 1: Planet of the main menu.
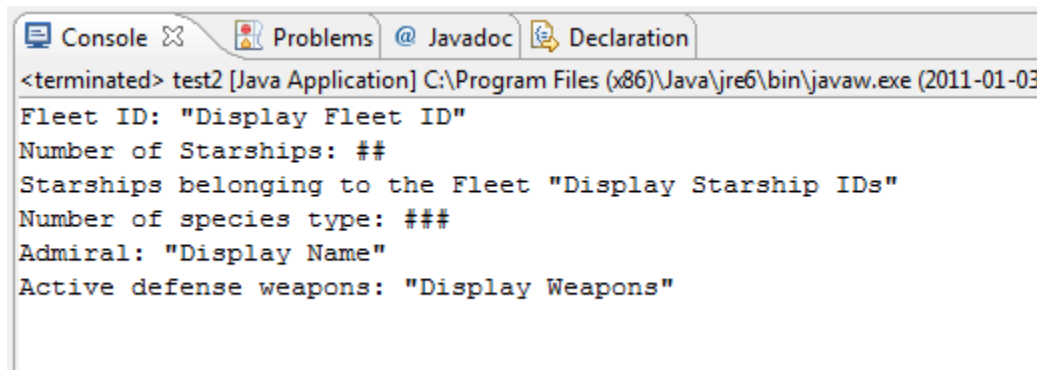
3: View Info: This option allows the Administrator to view complete information about a selected Weapon. Once again similar to the View Option for Planet, the Administrator can do this in following two different ways.

1: Display planet info by ID: The administrator should select this option only if he/she is sure about the Weapon ID for desired Weapon. When the administrator enters a valid ID, he/she is displayed complete information about the selected Weapon.

2: Search and display: This function works in identical manner as the View option for the planet however, the administration has to select a weapon type rather than a planet type and once the administrator chooses a valid weapon type he/she is displayed with ID number and name of each weapon belonging to that weapon type. For more detailed explanation for how to use this option refer to View option for Planet.

Accessing fleet data and Starship data

5: View Fleet info: With this option the administrator has to ability to view Starfleet attributes. By selecting this option, the administrator can interact with the elements of Starfleet. The Starfleet is composed of fleets of Starships and has its own identification number. For example – fleet ID, number of starships, starships belonging to the fleet, number of species type, Admiral Rank, defense weapons (which are available to the Starships connected), etc. If the administrator chooses this option, they will be presented with the similar screen as presented below.
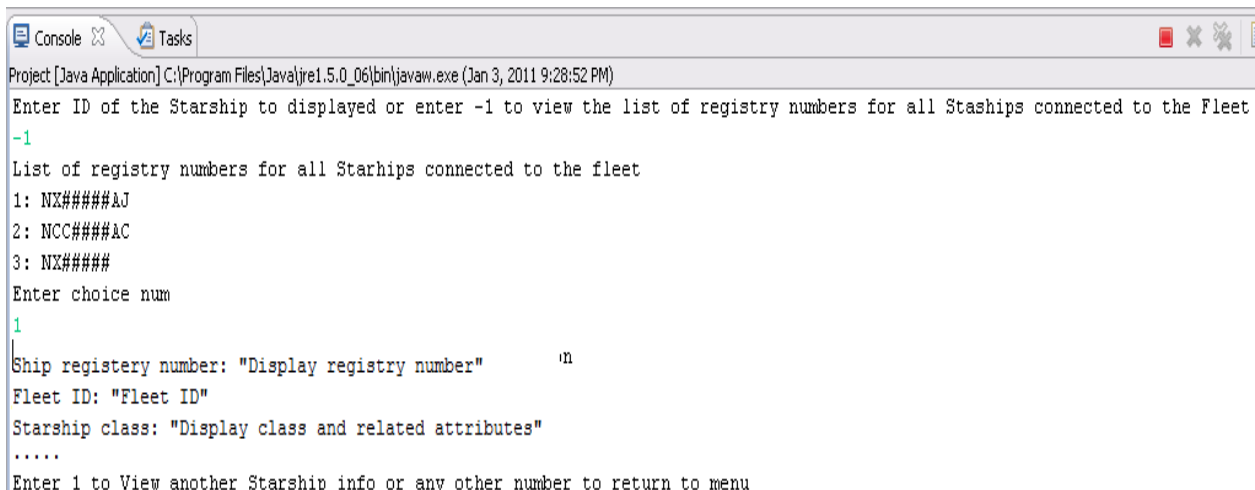

4: Search/ Display (main menu): This option allows the user to access different Starships connected to the Fleet and displays complete information about the starship selected. If the user selects this option, he/she is provided with the following screen.
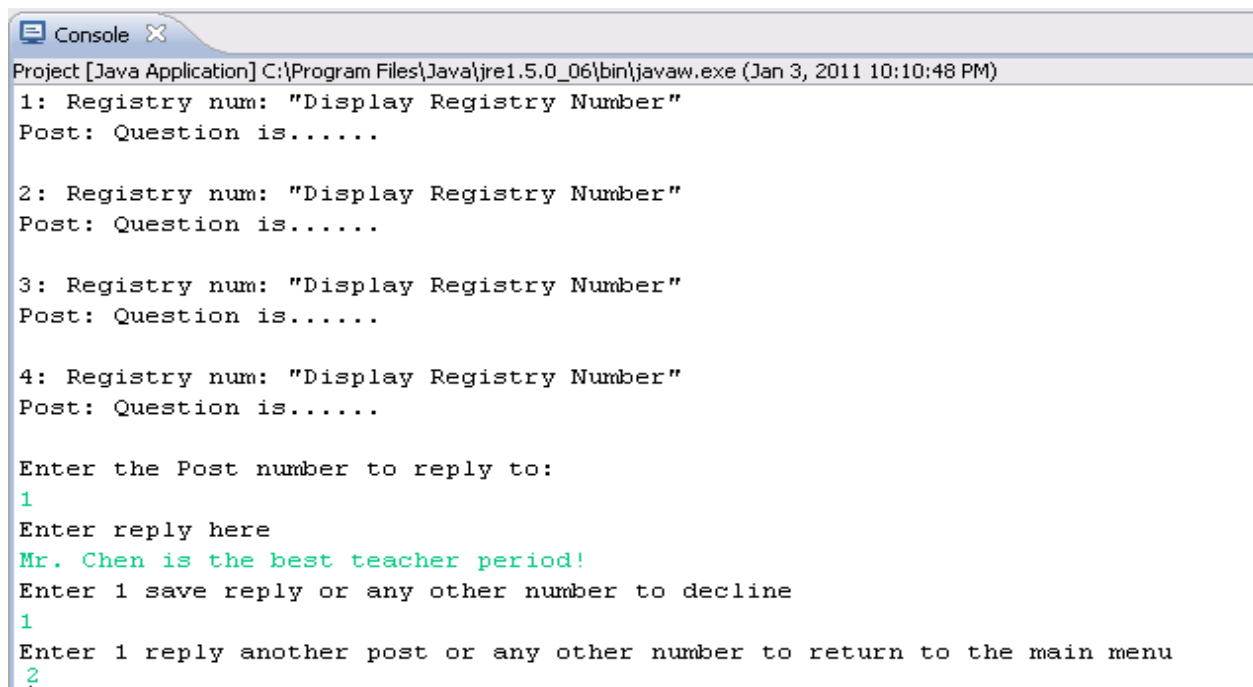
Therefore this option allows the user to either view the info of a desired Starship directly by entering the ID number of the Starship or either through searching for the required registry number first and then choosing to display complete information about a desired Starship.

Responding to Forum Questions

5: Feedback/ Questions reply (main menu)
This option allows the Administrator to view different questions or feedbacks posted by the user and post a reply. If the Administrator selects this option, he/she will be displayed with the following screen that would display messages in order they were posed and a registry number will be included with each message indicating the Starship it came from.


```
Console ✕
Project [Java Application] C:\Program Files\Java\jre1.5.0_06\bin\javaw.exe (Jan 3, 2011 10:10:48 PM)
1: Registry num: "Display Registry Number"
Post: Question is......

2: Registry num: "Display Registry Number"
Post: Question is......

3: Registry num: "Display Registry Number"
Post: Question is......

4: Registry num: "Display Registry Number"
Post: Question is......

Enter the Post number to reply to:
1
Enter reply here
Mr. Chen is the best teacher period!
Enter 1 save reply or any other number to decline
1
Enter 1 reply another post or any other number to return to the main menu
2
```

If the Administrator chooses to Save the reply, the program will save the question and the reply which could be viewed using option 6 on main menu. However, the question will be deleted from this option once the Administrator has answered it (even if the user declines the offer to save the reply).

6: Saved replies (main menu): This option stores all the replies saved by the user along with the questions. If the user selects this option all the questions along with their replies are displayed in the order they were answered.

Thoughts from the makers:
Due to the design and structure of this program, it will comply to the principal means by which the Federation conducts its affairs: exploration, defense, diplomacy and research. The user for this program will have to follow strict rules associated with the federation while getting the opportunity to learn and research by exploring key features provided by this program.