

## Assignment 6

1. Create a program that uses an ArrayList to store a list of names. The program should allow the user to add and remove names from the list and should display the current list of names after each modification.

**CodeLink:** <https://codeshare.io/N3pBLV>

```
<terminated> arrlist [Java Application] C:\Users\saniybi\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full\jre\bin\java.exe
1. Add a name
2. Remove a name
3. Display the list
4. Exit
Enter your choice: 1
Enter a name to add: AA

1. Add a name
2. Remove a name
3. Display the list
4. Exit
Enter your choice: 1
Enter a name to add: BB

1. Add a name
2. Remove a name
3. Display the list
4. Exit
Enter your choice: 3
Current list of names:
- AA
- BB

1. Add a name
2. Remove a name
3. Display the list
4. Exit
Enter your choice: 2
Enter the index of the name to remove (0-1): 0

1. Add a name
2. Remove a name
3. Display the list
4. Exit
Enter your choice: 3
Current list of names:
- BB

1. Add a name
2. Remove a name
3. Display the list
4. Exit
Enter your choice: 4
Exiting program.
```

2. Create a program that uses a HashMap to store a dictionary of words and their meanings. The program should allow the user to add new words and meanings and should display the meaning of a word when the user enters the word.

CodeLink: <https://codeshare.io/mpbgzp>

```
Problems @ Javadoc Declaration Console × Coverage
<terminated> hashmap [Java Application] C:\Users\saniybi\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.wir
1. Add a word and its meaning
2. Look up the meaning of a word
3. Exit
Enter your choice: 1
Enter a word to add: car
Enter its meaning: vehicle
Added "car" with meaning "vehicle" to the dictionary.

1. Add a word and its meaning
2. Look up the meaning of a word
3. Exit
Enter your choice: 2
Enter a word to look up: car
The meaning of "car" is "vehicle".

1. Add a word and its meaning
2. Look up the meaning of a word
3. Exit
Enter your choice: 3
Exiting program.
```

3. Create a program that uses a TreeSet to store a list of integers. The program should allow the user to add and remove integers from the set, and should display the current set of integers after each modification.

CodeLink: <https://codeshare.io/WdE9NY>

```
Problems @ Javadoc Declaration Console × Coverage
<terminated> number [Java Application] C:\Users\saniybi\p2\pool\plugins\org.eclipse.justj.openjdk.
1. Add an integer
2. Remove an integer
3. Display current set of integers
4. Exit
Enter your choice: 1
Enter an integer to add: 20
Added 20 to the set.

1. Add an integer
2. Remove an integer
3. Display current set of integers
4. Exit
Enter your choice: 1
Enter an integer to add: 50
Added 50 to the set.

1. Add an integer
2. Remove an integer
3. Display current set of integers
4. Exit
Enter your choice: 3
Current set of integers: [20, 50]

1. Add an integer
2. Remove an integer
3. Display current set of integers
4. Exit
Enter your choice: 2
Enter an integer to remove: 20
Removed 20 from the set.

1. Add an integer
2. Remove an integer
3. Display current set of integers
4. Exit
Enter your choice: 3
Current set of integers: [50]

1. Add an integer
2. Remove an integer
3. Display current set of integers
4. Exit
Enter your choice: 4
Exiting program.
```

4. Create a program that uses a LinkedList to implement a queue. The program should allow the user to add and remove items from the queue, and should display the current contents of the queue after each modification.

CodeLink: <https://codeshare.io/r9lW9Y>

```
Problems @ Javadoc Declaration Console × Coverage
<terminated> queue [Java Application] C:\Users\saniybi\p2\pool\plugins\org.eclipse.justj.openjdk
1. Add an item to the queue
2. Remove an item from the queue
3. Display current contents of the queue
4. Exit
Enter your choice: 1
Enter an item to add to the queue: 20
Added 20 to the queue.

1. Add an item to the queue
2. Remove an item from the queue
3. Display current contents of the queue
4. Exit
Enter your choice: 1
Enter an item to add to the queue: 43
Added 43 to the queue.

1. Add an item to the queue
2. Remove an item from the queue
3. Display current contents of the queue
4. Exit
Enter your choice: 3
Current contents of the queue: [20, 43]

1. Add an item to the queue
2. Remove an item from the queue
3. Display current contents of the queue
4. Exit
Enter your choice: 2
Removed 20 from the queue.

1. Add an item to the queue
2. Remove an item from the queue
3. Display current contents of the queue
4. Exit
Enter your choice: 3
Current contents of the queue: [43]

1. Add an item to the queue
2. Remove an item from the queue
3. Display current contents of the queue
4. Exit
Enter your choice: 4
Exiting program.
```

5. Create a program that uses a HashSet to store a set of strings. The program should read in a text file and should add each word in the file to the set of strings. After all words have been added, the program should display the number of unique words in the file.

CodeLink: <https://codeshare.io/PdEJ8E>

