Java Assignment - 6

Topic: The Collections framework in Java

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.

https://codeshare.io/RbveDV

```
Enter an option:        1.Add a name    2.Remove a name 3.Exit
1
Enter a name:Aishwarya
Name added.
Current names:
Aishwarya

Enter an option:        1.Add a name    2.Remove a name 3.Exit
1
Enter a name:Bhumika
Name added.
Current names:
Aishwarya
Bhumika

Enter an option:        1.Add a name    2.Remove a name 3.Exit
2
Enter a name to remove:Bhumika
Name removed.
Current names:
Aishwarya

Enter an option:        1.Add a name    2.Remove a name 3.Exit
3
```

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.

https://codeshare.io/nzoOWn

```
Enter an option:        1.Add a word and its meaning    2.Look up the meaning of a word 3.Quit
1
Enter a word:
Black
Enter its meaning:
Color
Word added.

Enter an option:        1.Add a word and its meaning    2.Look up the meaning of a word 3.Quit
1
Enter a word:
Earth
Enter its meaning:
Planet
Word added.

Enter an option:        1.Add a word and its meaning    2.Look up the meaning of a word 3.Quit
2
Enter a word to look up:
Black
Meaning: Color

Enter an option:        1.Add a word and its meaning    2.Look up the meaning of a word 3.Quit
3
```

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.

https://codeshare.io/gL9vWy

```
Enter an option:        1.Add an integer        2.Remove an integer     3.Display the set       4.Exit
1
Enter an integer:17
Integer added.

Enter an option:        1.Add an integer        2.Remove an integer     3.Display the set       4.Exit
1
Enter an integer:8
Integer added.

Enter an option:        1.Add an integer        2.Remove an integer     3.Display the set       4.Exit
3
Set: [8, 17]

Enter an option:        1.Add an integer        2.Remove an integer     3.Display the set       4.Exit
2
Enter an integer to remove:8
Integer removed.

Enter an option:        1.Add an integer        2.Remove an integer     3.Display the set       4.Exit
3
Set: [17]

Enter an option:        1.Add an integer        2.Remove an integer     3.Display the set       4.Exit
4
```

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.

https://codeshare.io/WdEb9M

```
Enter an option:        1.Queue an item 2.Dequeue an item       3.tDisplay the queue    4.Exit
1
Enter an item:Peter
Item queued.

Enter an option:        1.Queue an item 2.Dequeue an item       3.tDisplay the queue    4.Exit
1
Enter an item:Parker
Item queued.

Enter an option:        1.Queue an item 2.Dequeue an item       3.tDisplay the queue    4.Exit
3
Queue: [Peter, Parker]

Enter an option:        1.Queue an item 2.Dequeue an item       3.tDisplay the queue    4.Exit
2
Dequeued item: Peter

Enter an option:        1.Queue an item 2.Dequeue an item       3.tDisplay the queue    4.Exit
3
Queue: [Parker]

Enter an option:        1.Queue an item 2.Dequeue an item       3.tDisplay the queue    4.Exit
4
```

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.
https://codeshare.io/8plkjA