

## Java Assignment – 06

### 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/dwQybz>

```
NameList [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (01-Mar-2023, 11:41:48 am) [pid: 12048]
Choose an option:
1. Add a name
2. Remove a name
3. Exit
1
Enter a name to add:
Impana
Current list of names:
Impana

Choose an option:
1. Add a name
2. Remove a name
3. Exit
1
Enter a name to add:
Nisha
Current list of names:
Impana
Nisha
```

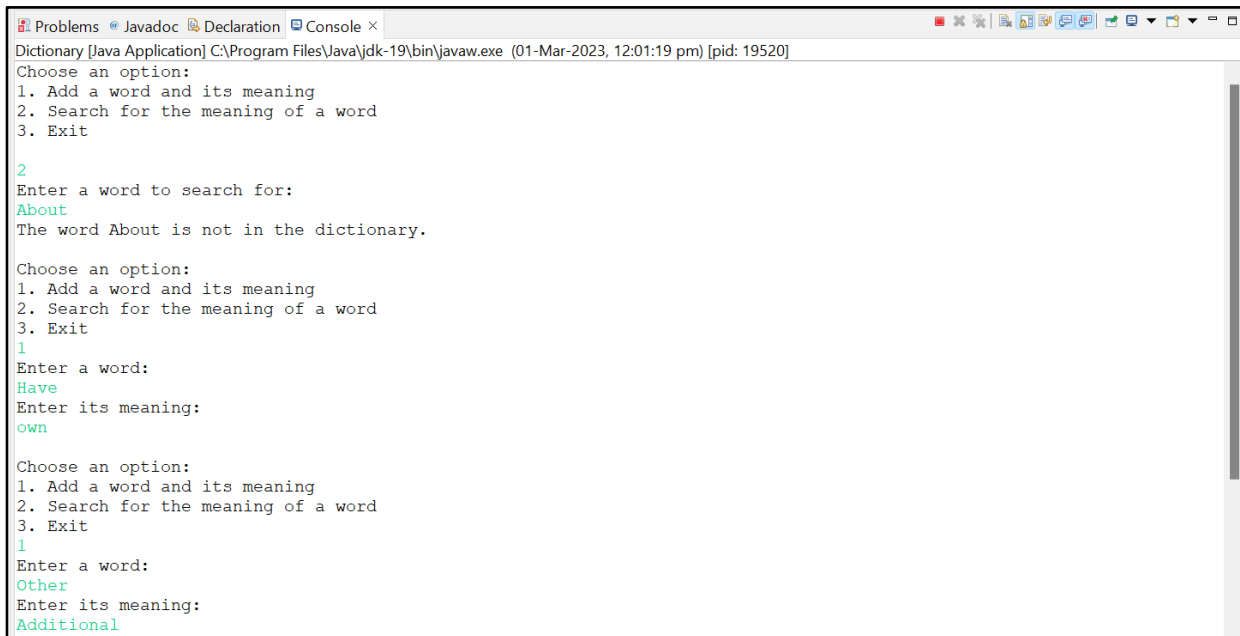
```
Problems Javadoc Declaration Console x
NameList [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (01-Mar-2023, 11:41:48 am) [pid: 12048]
Enter a name to add:
Poorvika
Current list of names:
Impana
Nisha
Poorvika

Choose an option:
1. Add a name
2. Remove a name
3. Exit
1
Enter a name to add:
Pavan
Current list of names:
Impana
Nisha
Poorvika
Pavan

Choose an option:
1. Add a name
2. Remove a name
3. Exit
2
Enter a name to remove:
Pavan
Current list of names:
Impana
Nisha
Poorvika
```

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/9OLNwX>



```
Dictionary [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (01-Mar-2023, 12:01:19 pm) [pid: 19520]
Choose an option:
1. Add a word and its meaning
2. Search for the meaning of a word
3. Exit

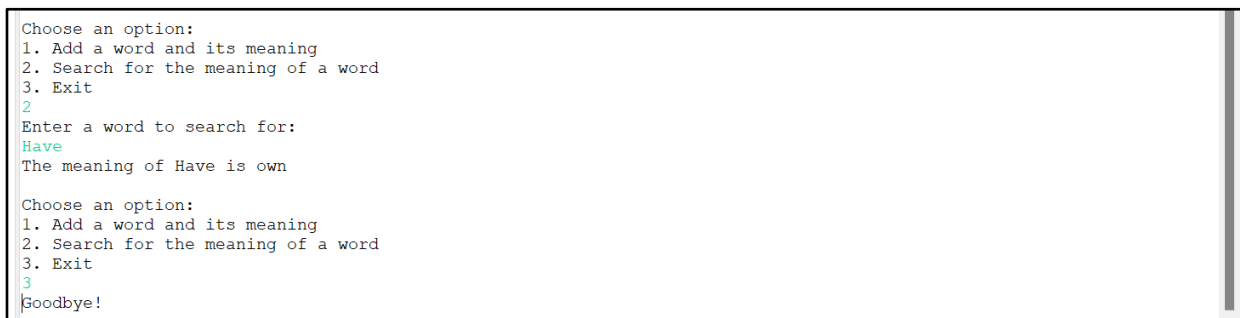
2
Enter a word to search for:
About
The word About is not in the dictionary.

Choose an option:
1. Add a word and its meaning
2. Search for the meaning of a word
3. Exit

1
Enter a word:
Have
Enter its meaning:
own

Choose an option:
1. Add a word and its meaning
2. Search for the meaning of a word
3. Exit

1
Enter a word:
Other
Enter its meaning:
Additional
```



```
Choose an option:
1. Add a word and its meaning
2. Search for the meaning of a word
3. Exit

2
Enter a word to search for:
Have
The meaning of Have is own

Choose an option:
1. Add a word and its meaning
2. Search for the meaning of a word
3. Exit

3
Goodbye!
```

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/OdE04A>



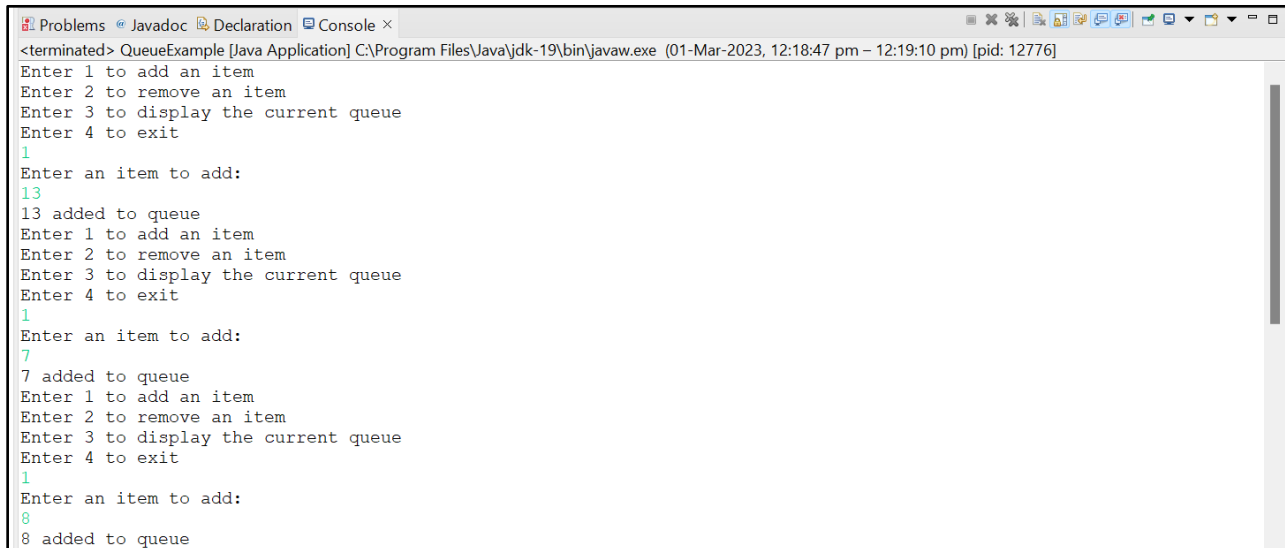
```
Problems | Javadoc | Declaration | Console x
<terminated> TreeSetExample [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (01-Mar-2023, 12:08:32 pm - 12:10:07 pm) [pid: 1560]
Enter 1 to add a number
Enter 2 to remove a number
Enter 3 to display the current set
Enter 4 to exit
1
Enter a number to add:
13
13 added to set
Enter 1 to add a number
Enter 2 to remove a number
Enter 3 to display the current set
Enter 4 to exit
1
Enter a number to add:
7
7 added to set
Enter 1 to add a number
Enter 2 to remove a number
Enter 3 to display the current set
Enter 4 to exit
1
Enter a number to add:
2
2 added to set
```



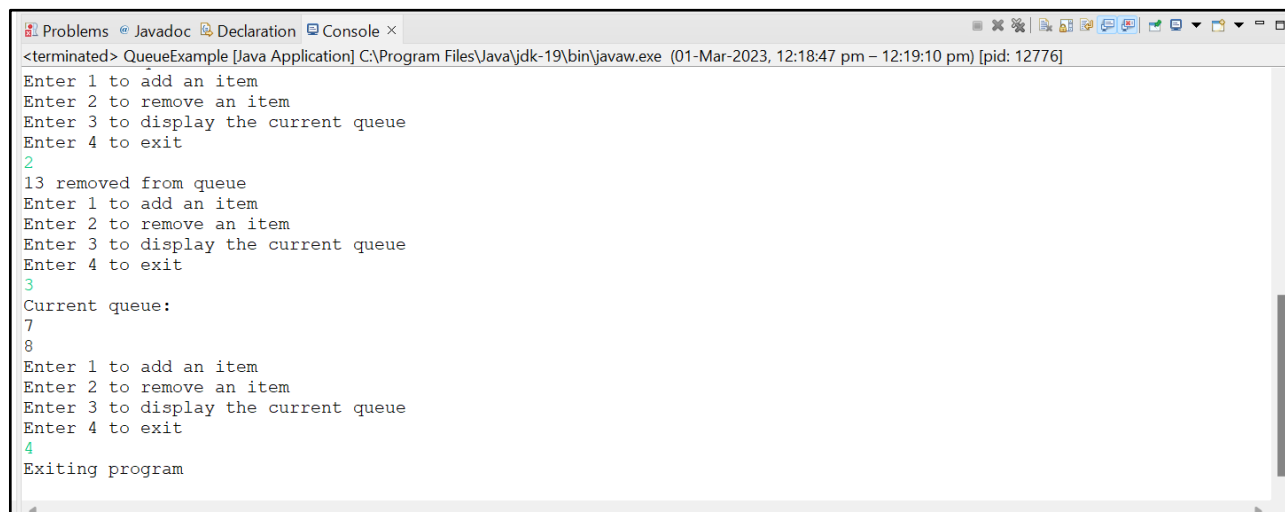
```
Problems | Javadoc | Declaration | Console x
<terminated> TreeSetExample [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (01-Mar-2023, 12:08:32 pm - 12:10:07 pm) [pid: 1560]
Enter 1 to add a number
Enter 2 to remove a number
Enter 3 to display the current set
Enter 4 to exit
2
Enter a number to remove:
2
2 removed from set
Enter 1 to add a number
Enter 2 to remove a number
Enter 3 to display the current set
Enter 4 to exit
3
Current set of numbers:
7
13
Enter 1 to add a number
Enter 2 to remove a number
Enter 3 to display the current set
Enter 4 to exit
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.

<https://codeshare.io/YLE0eb>



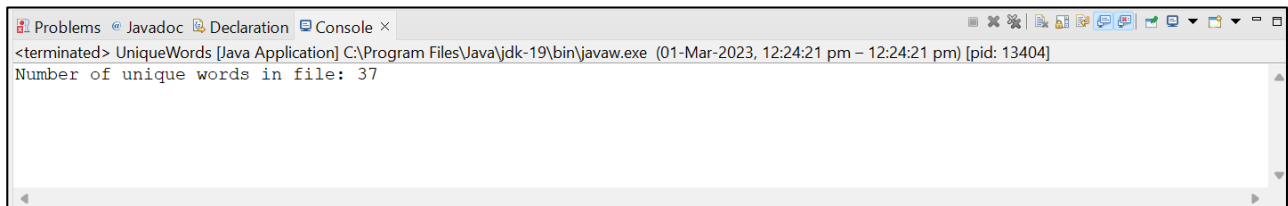
```
Problems Javadoc Declaration Console ×
<terminated> QueueExample [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (01-Mar-2023, 12:18:47 pm – 12:19:10 pm) [pid: 12776]
Enter 1 to add an item
Enter 2 to remove an item
Enter 3 to display the current queue
Enter 4 to exit
1
Enter an item to add:
13
13 added to queue
Enter 1 to add an item
Enter 2 to remove an item
Enter 3 to display the current queue
Enter 4 to exit
1
Enter an item to add:
7
7 added to queue
Enter 1 to add an item
Enter 2 to remove an item
Enter 3 to display the current queue
Enter 4 to exit
1
Enter an item to add:
8
8 added to queue
```



```
Problems Javadoc Declaration Console ×
<terminated> QueueExample [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (01-Mar-2023, 12:18:47 pm – 12:19:10 pm) [pid: 12776]
Enter 1 to add an item
Enter 2 to remove an item
Enter 3 to display the current queue
Enter 4 to exit
2
13 removed from queue
Enter 1 to add an item
Enter 2 to remove an item
Enter 3 to display the current queue
Enter 4 to exit
3
Current queue:
7
8
Enter 1 to add an item
Enter 2 to remove an item
Enter 3 to display the current queue
Enter 4 to exit
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.

<https://codeshare.io/qPmqVj>



```
Problems Javadoc Declaration Console x
<terminated> UniqueWords [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (01-Mar-2023, 12:24:21 pm - 12:24:21 pm) [pid: 13404]
Number of unique words in file: 37
```