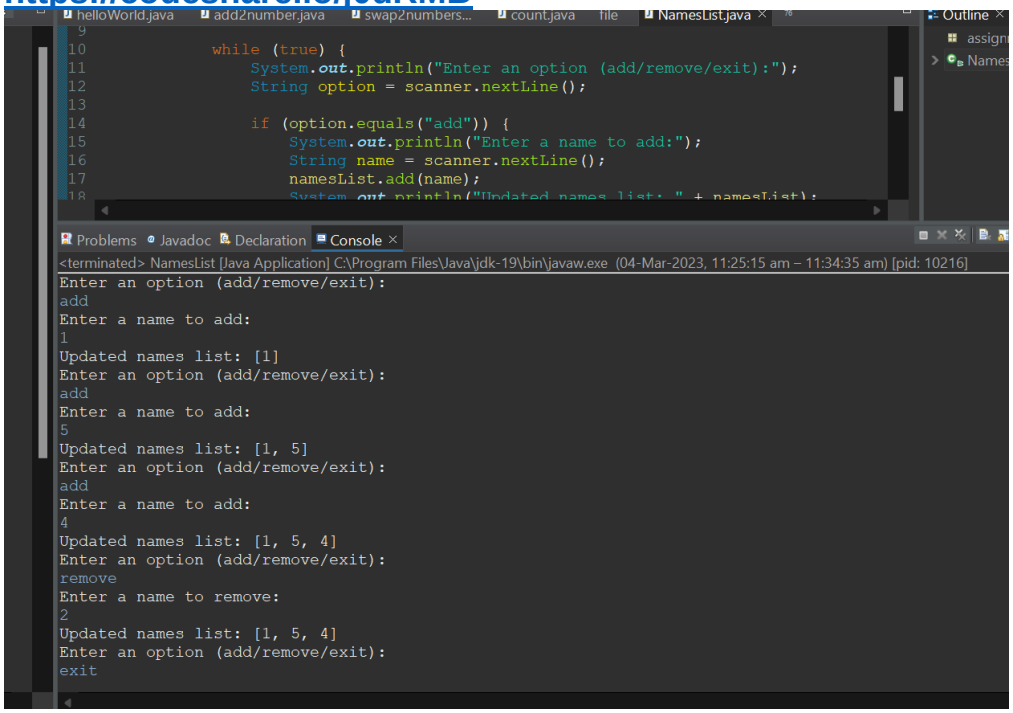
1.Create a program that uses an ArrayList to store a list of names. The program should allow the user to add and remove names from the list, and should display the current list of names after each modification.

https://codeshare.io/j0dRMB



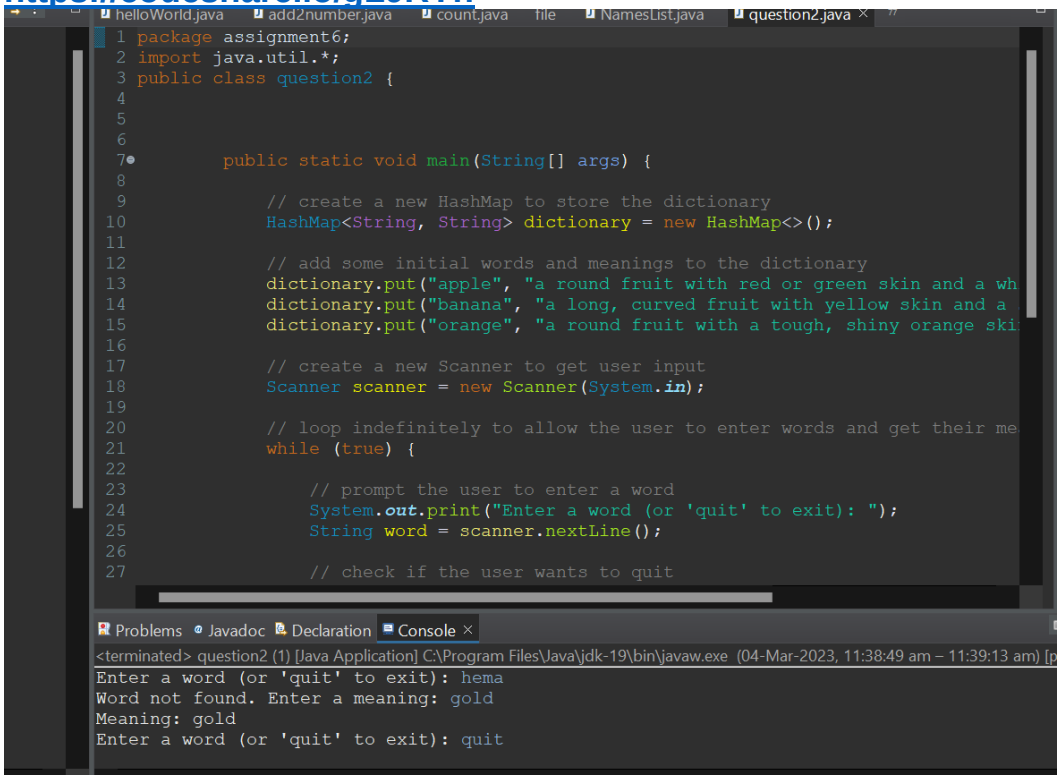
```
while (true) {
    System.out.println("Enter an option (add/remove/exit):");
    String option = scanner.nextLine();

    if (option.equals("add")) {
        System.out.println("Enter a name to add:");
        String name = scanner.nextLine();
        namesList.add(name);
```

```
<terminated> NamesList [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (04-Mar-2023, 11:25:15 am – 11:34:35 am) [pid: 10216]
Enter an option (add/remove/exit):
add
Enter a name to add:
1
Updated names list: [1]
Enter an option (add/remove/exit):
add
Enter a name to add:
5
Updated names list: [1, 5]
Enter an option (add/remove/exit):
add
Enter a name to add:
4
Updated names list: [1, 5, 4]
Enter an option (add/remove/exit):
remove
Enter a name to remove:
2
Updated names list: [1, 5, 4]
Enter an option (add/remove/exit):
exit
```

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/gL9RYn



```
package assignment6;
import java.util.*;
public class question2 {



    public static void main(String[] args) {

        // create a new HashMap to store the dictionary
        HashMap<String, String> dictionary = new HashMap<>();

        // add some initial words and meanings to the dictionary
        dictionary.put("apple", "a round fruit with red or green skin and a wh
        dictionary.put("banana", "a long, curved fruit with yellow skin and a
        dictionary.put("orange", "a round fruit with a tough, shiny orange ski

        // create a new Scanner to get user input
        Scanner scanner = new Scanner(System.in);

        // loop indefinitely to allow the user to enter words and get their me
        while (true) {

            // prompt the user to enter a word
            System.out.print("Enter a word (or 'quit' to exit): ");
            String word = scanner.nextLine();

            // check if the user wants to quit
```

```
<terminated> question2 (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (04-Mar-2023, 11:38:49 am – 11:39:13 am) [p
Enter a word (or 'quit' to exit): hema
Word not found. Enter a meaning: gold
Meaning: gold
Enter a word (or 'quit' to exit): quit
```

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/Rbv14W

```
dpackage assignment6;
port java.util.Scanner;
blic class question3 {

    public static void main(String[] args) {
        TreeSet<Integer> set = new TreeSet<>();
        Scanner scanner = new Scanner(System.in);
        while (true) {
            System.out.println("Enter a command (add, remove, display, quit):");
            String command = scanner.nextLine();
            if (command.equalsIgnoreCase("add")) {
                System.out.println("Enter an integer to add:");
                int num = scanner.nextInt();
                scanner.nextLine(); // Consume newline left-over
                set.add(num);
                System.out.println("Set after adding " + num + ": " + set);
```

Problems Javadoc Declaration Console

```
<terminated> question3 [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (04-Mar-2023, 11:41:42 am – 11:42:18 am) [pid
Enter a command (add, remove, display, quit):
add
Enter an integer to add:
5
Set after adding 5: [5]
Enter a command (add, remove, display, quit):
add
Enter an integer to add:
3
Set after adding 3: [3, 5]
Enter a command (add, remove, display, quit):
display
Current set: [3, 5]
Enter a command (add, remove, display, quit):
quit
Goodbye!
```

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/X8E1gn

```
package assignment6;
import java.util.LinkedList;

public class question4 {

    public static void main(String[] args) {
        LinkedList<String> queue = new LinkedList<String>();
        Scanner scanner = new Scanner(System.in);
        while (true) {
            System.out.println("Enter 1 to add an item, 2 to remove an it
            int choice = scanner.nextInt();
            if (choice == 1) {
                System.out.println("Enter the item to be added:");
                String item = scanner.next();
                queue.add(item);
                System.out.println("Queue after adding item: " + queue);
```

Problems Javadoc Declaration Console

```
<terminated> question4 [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (04-Mar-2023, 11:44:49 am – 11:45
Enter 1 to add an item, 2 to remove an item, or 3 to exit:
1
Enter the item to be added:
6
Queue after adding item: [6]
Enter 1 to add an item, 2 to remove an item, or 3 to exit:
1
Enter the item to be added:
4
Queue after adding item: [6, 4]
Enter 1 to add an item, 2 to remove an item, or 3 to exit:
2
Removed item from queue: 6
Queue after removing item: [4]
Enter 1 to add an item, 2 to remove an item, or 3 to exit:
3
```

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.