Assignment-06

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.

Code https://codeshare.io/gL9v48

```java
package assignment06;


import java.util.ArrayList;
import java.util.Scanner;

public class Namelist {
    public static void main(String[] args) {
        ArrayList<String> names = new ArrayList<>();
        @SuppressWarnings("resource")
        Scanner input = new Scanner(System.in);

        while (true) {
            System.out.println("Enter an option:");
            System.out.println("1. Add a name");
            System.out.println("2. Remove a name");
            System.out.println("3. Display the list");
            System.out.println("4. Exit");

            int choice = input.nextInt();

            switch (choice) {
                case 1:
                    System.out.print("Enter a name to add: ");
                    String nameToAdd = input.next();
                    names.add(nameToAdd);
```

Problems Javadoc Declaration Console ×

Namelist [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (28-Feb-2023, 11:17:22 pm) [pid: 10716]

```
1. Add a name
2. Remove a name
3. Display the list
4. Exit
```

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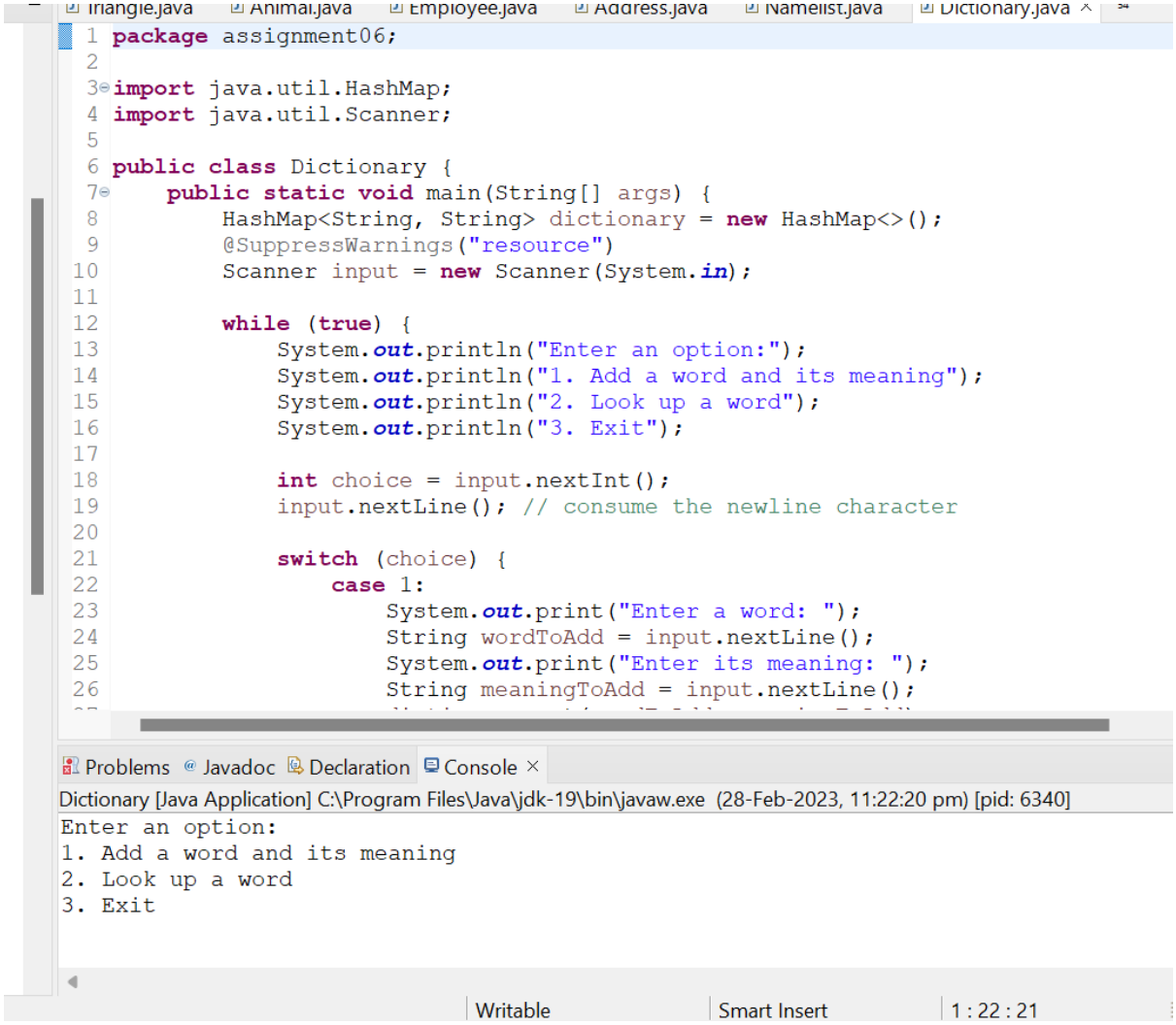
2.Create a program that uses a HashMap to store a dictionary of words and their meanings. The program should allow the user to add new words and meanings, and should display the meaning of a word when the user enters the word.

Code https://codeshare.io/X8EoLn



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.

Code https://codeshare.io/9OLxbB

```
1
2  package assignment06;
3
4  import java.util.Scanner;
5  import java.util.TreeSet;
6
7  public class Integerset {
8      public static void main(String[] args) {
9          TreeSet<Integer> integerSet = new TreeSet<>();
10         Scanner input = new Scanner(System.in);
11
12         while (true) {
13             System.out.println("Enter an option:");
14             System.out.println("1. Add an integer");
15             System.out.println("2. Remove an integer");
16             System.out.println("3. Display the set");
17             System.out.println("4. Exit");
18
19             int choice = input.nextInt();
20
21             switch (choice) {
22                 case 1:
23                     System.out.print("Enter an integer to add: ");
24                     int numberToAdd = input.nextInt();
25                     integerSet.add(numberToAdd);
26                     System.out.println(numberToAdd + " has been added to the set."
```

Problems Javadoc Declaration Console ×

Integerset [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (28-Feb-2023, 11:24:33 pm) [pid: 9188]

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

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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.

Code https://codeshare.io/lonJdZ

Employee.java | Address.java | Namelist.java | Dictionary.java | Integerset.java | queue.java

```
1  package assignment06;
2
3
4
5  import java.util.LinkedList;
6  import java.util.Scanner;
7
8  public class queue {
9      private static LinkedList<String> queue = new LinkedList<>();
10
11     public static void main(String[] args) {
12         Scanner scanner = new Scanner(System.in);
13         int choice;
14         String data;
15         do {
16             System.out.println("1. Add an element to queue");
17             System.out.println("2. Remove an element from queue");
18             System.out.println("3. Display the queue");
19             System.out.println("4. Exit");
20             System.out.print("Enter your choice: ");
21             choice = scanner.nextInt();
22             scanner.nextLine();
23             switch (choice) {
24                 case 1:
25                     System.out.print("Enter the data to be added: ");
26                     data = scanner.nextLine();
```

Problems | Javadoc | Declaration | Console

```
queue [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe  (28-Feb-2023, 11:26:32 pm) [pid: 18824]
1. Add an element to queue
2. Remove an element from queue
3. Display the queue
4. Exit
Enter your choice:
```

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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.

Code https://codeshare.io/78m3Jn

```java
package assignment6;

import java.io.File;
import java.io.FileNotFoundException;
import java.util.HashSet;
import java.util.Scanner;
import java.util.Set;

public class UniqueWordsCounter {
    public static void main(String[] args) {
        File file = new File("C:\\Users\\parsvpr\\OneDrive - Tecnotree\\Documents\\in.txt");
        Set<String> uniqueWords = new HashSet<>();
        try {
            Scanner scanner = new Scanner(file);
            while (scanner.hasNext()) {
                String word = scanner.next().replaceAll("[^a-zA-Z0-9]", "").toLowerCase();
                uniqueWords.add(word);
            }
            scanner.close();
        } catch (FileNotFoundException e) {
            System.out.println("File not found");
            return;
        }
        System.out.println("Number of unique words in file: " + uniqueWords.size());
    }
}
```