NOTE: For Detailed codes, please check on my repository.

ASSIGNMENT -1: AVERAGE CONFUSION

```java
1   package Collection_Programs;
2
3   import java.util.*;
4   public class Assignment_1 {
5
6       public static void main(String[] args) {
7           // TODO Auto-generated method stub
8           Scanner sc=new Scanner(System.in);
9           int arr[]=new int[5];
10          for(int i=0;i<5;i++) {
11              arr[i]=sc.nextInt();
12          }
13          int sum=0;
14          for(int i=0;i<5;i++) {
15              if(arr[i] <10) {
16                  arr[i]=arr[i]*2;
17                  sum+=arr[i];
18              }
19              else {
20                  sum+=arr[i];
21              }
22          }
23          double avg=sum/5;
24          System.out.println(avg);
25
26      }
27
28  }
29
```

Problems @ Javadoc Declaration Console × Progress
<terminated> Assignment_1 [Java Application] C:\Users\91798\Downloads\sp
```
10 20 5 7 11
13.0
```

ASSIGNMENT -2: REVERSED TASK QUEUE

```java
1   package Collection_Programs;
2
3   import java.util.Collections;
4   import java.util.LinkedList;
5   import java.util.Scanner;
6
7   public class Assignment_2 {
8
9       public static void main(String[] args) {
10          // TODO Auto-generated method stub
11          Scanner sc=new Scanner(System.in);
12          LinkedList<String> ll=new LinkedList<>();
13          int tasks_entered=4;
14          for(int i=0;i<tasks_entered;i++) {
15              String st=sc.next();
16              if(st.charAt(st.length()-1)=='!') {
17                  ll.addFirst(st);
18              }
19              else
20                  ll.add(st);
21          }
22          Collections.reverse(ll);
23          System.out.println(ll);
24
25
26
27      }
28
29  }
30
```

Problems   @ Javadoc   Declaration   Console ×   Progress

\<terminated\> Assignment_2 [Java Application] C:\Users\91798\Downloads\sp

```
ramesh karthik! digvesh ashok!
[digvesh, ramesh, karthik!, ashok!]
```

ASSIGNMENT -3: LAST 3 SEARCHES

```java
1  package Collection_Programs;
2
3  import java.util.ArrayDeque;
4  import java.util.Scanner;
5
6  public class Assignment_3 {
7
8      public static void main(String[] args) {
9          // TODO Auto-generated method stub
10         Scanner sc=new Scanner(System.in);
11         int last_search=3;
12         int n=sc.nextInt();
13         ArrayDeque<String> searchBox=new ArrayDeque<>();
14         for(int i=0;i<n;i++) {
15             if(searchBox.size()==last_search) {
16                 searchBox.removeFirst();
17             }
18             searchBox.add(sc.next());
19         }
20         System.out.println(searchBox);
21
22     }
23
24 }
25
```

Problems @ Javadoc Declaration Console ✕ Progress So

<terminated> Assignment_3 [Java Application] C:\Users\91798\Downloads\spring-t

```
5
Google Facebook Instagram Whatsapp Twitter
[Instagram, Whatsapp, Twitter]
```

ASSIGNMENT -3: LAST 3 SEARCHES

ASSIGNMENT -4: UNDO STACK

```java
1  package Collection_Programs;
2
3  import java.util.Collections;
4  import java.util.Scanner;
5  import java.util.Stack;
6
7  public class Assignment_4 {
8
9      public static void main(String[] args) {
10         // TODO Auto-generated method stub
11         Scanner sc=new Scanner(System.in);
12         Stack<String> commands =new Stack<>();
13         for(int i=0;i<3;i++) {
14             commands.push(sc.next());
15         }
16         String store=commands.pop();
17         Collections.reverse(commands);
18         commands.push(store);
19         System.out.println(commands);
20     }
21
22 }
23
```

Problems @ Javadoc Declaration Console ✕ Pr

<terminated> Assignment_4 [Java Application] C:\Users\91798\Downl

```
ctrl Alt Del
[Alt, ctrl, Del]
```

ASSIGNMENT -5: RECENT APP MEMORY

```java
1  package Collection_Programs;
2
3  import java.util.LinkedList;
4  import java.util.Scanner;
5
6  public class Assignment_5 {
7
8      public static void main(String[] args) {
9          // TODO Auto-generated method stub
10         LinkedList<String> recentApps = new LinkedList<>();
11         Scanner sc = new Scanner(System.in);
12
13         for (int i = 0; i < 5; i++) {
14             System.out.print("Open app name: ");
15             String app = sc.nextLine();
16
17             // If already opened, remove it
18             recentApps.remove(app);
19
20             // Add to top
21             recentApps.addFirst(app);
22         }
```

Problems @ Javadoc Declaration Console × Progress SonarQube Ru

<terminated> Assignment_5 (1) [Java Application] C:\Users\91798\Downloads\spring-tools-for-

```
Open app name: Whatsapp
Open app name: Facebook
Open app name: MailBox
Open app name: YouTube
Open app name: Netflix

Final Recent Apps:
Netflix
YouTube
MailBox
Facebook
Whatsapp
```

ASSIGNMENT -6: GROCERY LINE SHUFFLE

```java
1  package Collection_Programs;
2
3  import java.util.ArrayDeque;
4  import java.util.Scanner;
5
6  public class Assignment_6 {
7
8      public static void main(String[] args) {
9          // TODO Auto-generated method stub
10         Scanner sc=new Scanner(System.in);
11         ArrayDeque<String> names=new ArrayDeque<>();
12         int n=sc.nextInt();
13         for(int i=0;i<n;i++) {
14             String st=sc.next();
15             if(st.length()%2==0) {
16                 names.addFirst(st);
17             }
18             else {
19                 names.addLast(st);
20             }
21         }
22         System.out.println(names);
23     }
24
25 }
26
```

Problems @ Javadoc Declaration Console ✕ Progress SonarQube Rule

\<terminated\> Assignment_6 [Java Application] C:\Users\91798\Downloads\spring-tools-for-eclip

```
10
Sugar Wheat Rice Oats Maida Wheat Jaggery Bread Oats Sugar
[Oats, Oats, Rice, Sugar, Wheat, Maida, Wheat, Jaggery, Bread, Sugar]
```

ASSIGNMENT -7: SMART JOB PICKER

```java
1  package Collection_Programs;
2
3  import java.util.PriorityQueue;
4  import java.util.Comparator;
5
6  class Job {
7      String name;
8      int urgency; // 1 = most urgent, 5 = least urgent
9
10     public Job(String name, int urgency) {
11         this.name = name;
12         this.urgency = urgency;
13     }
14
15     @Override
16     public String toString() {
17         return name + " (Urgency: " + urgency + ")";
18     }
19 }
20
21 public class Assignment_7 {
22     public static void main(String[] args) {
23         Comparator<Job> jobComparator = (j1, j2) -> {
24             if (j1.urgency != j2.urgency) {
25                 return Integer.compare(j1.urgency, j2.urgency);
26             }
27             return Integer.compare(j1.name.length(), j2.name.length());
28         };
29
30         PriorityQueue<Job> job = new PriorityQueue<>(jobComparator);
31
```

Problems @ Javadoc Declaration Console ✕ Progress SonarQube Rule Descript

<terminated> Assignment_7 (1) [Java Application] C:\Users\91798\Downloads\spring-tools-for-eclipse-4.3

```
Jobs in processing order:
Test (Urgency: 1)
FixBug (Urgency: 1)
DesignUI (Urgency: 2)
UpdateDocs (Urgency: 3)
WriteReport (Urgency: 3)
```

ASSIGNMENT -8: LIMITED CHAT HISTORY

```java
1  package Collection_Programs;
2
3  import java.util.ArrayDeque;
4  import java.util.Scanner;
5
6  public class Assignment_8 {
7
8      public static void main(String[] args) {
9          // TODO Auto-generated method stub
10
11         Scanner sc=new Scanner(System.in);
12         int last_search=4;
13         int n=sc.nextInt();
14         ArrayDeque<String> chatBox=new ArrayDeque<>();
15         for(int i=0;i<n;i++) {
16             if(chatBox.size()==last_search) {
17                 chatBox.removeFirst();
18             }
19             chatBox.add(sc.next());
20         }
21         System.out.println(chatBox);
22
23      }
24
25 }
26
```

Problems   @ Javadoc   Declaration   Console ×   Progress   Sona

<terminated> Assignment_8 [Java Application] C:\Users\91798\Downloads\spring-too

```
5
Hi Hello How are you
[Hello, How, are, you]
```

ASSIGNMENT -9: PRINT MANAGER

```java
1  package Collection Programs;
2
3  import java.util.concurrent.ArrayBlockingQueue;
4
5  public class Assignment_9 {
6
7      public static void main(String[] args) {
8          // TODO Auto-generated method stub
9          int jobs_allowed=3;
10         ArrayBlockingQueue<String> jobs=new ArrayBlockingQueue<>(jobs_allowed);
11         jobs.add("tea");
12         jobs.add("burger");
13         jobs.add("juice");
14         jobs.remove("tea");
15         jobs.add("coffee");
16         System.out.println(jobs);
17
18
19      }
20
21  }
22
```

Problems @ Javadoc Declaration Console ✕ Progress SonarQube Rule Description Error Log

\<terminated\> Assignment_9 [Java Application] C:\Users\91798\Downloads\spring-tools-for-eclipse-4.31.0.RELEASE-e4.36.0-wi

```
[burger, juice, coffee]
```

ASSIGNMENT -10: CHAT PROCESSOR

```java
1  package Collection_Programs;
2
3  import java.util.concurrent.LinkedBlockingQueue;
4
5  public class Assignment_10 {
6      public static void main(String[] args) {
7          LinkedBlockingQueue<String> chatQueue = new LinkedBlockingQueue<>(5);
8
9          Thread producer = new Thread(() -> {
10             int count = 1;
11             try {
12                 while (true) {
13                     String msg = "Message " + count++;
14                     chatQueue.put(msg);
15                     System.out.println("[Producer] Added: " + msg);
16                     Thread.sleep(500);
17                 }
18             } catch (InterruptedException e) {
```

Problems @ Javadoc Declaration Console ✕ Progress SonarQube Rule Description Error

<terminated> Assignment_10 [Java Application] C:\Users\91798\Downloads\spring-tools-for-eclipse-4.31.0.RELEASE-e4.

```
    [Consumer] Read: Message 1
[Producer] Added: Message 1
[Producer] Added: Message 2
    [Consumer] Read: Message 2
[Producer] Added: Message 3
[Producer] Added: Message 4
    [Consumer] Read: Message 3
[Producer] Added: Message 5
[Producer] Added: Message 6
    [Consumer] Read: Message 4
[Producer] Added: Message 7
[Producer] Added: Message 8
    [Consumer] Read: Message 5
[Producer] Added: Message 9
[Producer] Added: Message 10
    [Consumer] Read: Message 6
[Producer] Added: Message 11
[Producer] Added: Message 12
    [Consumer] Read: Message 7
    [Consumer] Read: Message 8
```

ASSIGNMENT -11: STAGE BASED TASK RUNNER

[FOR DETAILED CODE WATCH MY REPOSITORY]

```java
1   package Collection_Programs;
2
3   import java.util.concurrent.*;
4
5   //Task class
6   class Task {
7     int id;
8
9     Task(int id) {
10        this.id = id;
11    }
12
13    public int getId() {
14        return id;
15    }
16
17    public String toString() {
18        return "Task-" + id;
19    }
```

Problems @ Javadoc Declaration Console ×

\<terminated\> Assignment_11 (1) [Java Application] C:\Users\91...

```
Stage 1 processing: Task-1
Stage 1 processing: Task-2
Stage 1 processing: Task-3
Stage 1 processing: Task-4
Stage 2 processing: Task-2
Stage 2 processing: Task-4
Stage 1 processing: Task-5
Stage 1 processing: Task-6
Stage 1 processing: Task-7
Stage 2 processing: Task-6
Stage 1 processing: Task-8
Stage 1 processing: Task-9
Stage 2 processing: Task-8
Stage 1 processing: Task-10
Stage 2 processing: Task-10
All tasks processed.
```

ASSIGNMENT -12: EMERGENCY PATIENT TRACKER

```java
1  package Collection_Programs;
2
3  import java.util.PriorityQueue;
4
5  import java.util.PriorityQueue;
6  import java.util.Comparator;
7
8  import java.time.LocalDateTime;
9
10 class Patient {
11     private String name;
12     private int severity; // 1-10, 1 is most severe
13     private LocalDateTime arrivalTime;
14
15     public Patient(String name, int severity) {
16         this.name = name;
```

Problems | @ Javadoc | Declaration | Console × | Progress | SonarQu

<terminated> Assignment_12 [Java Application] C:\Users\91798\Downloads\spring-tools-

```
Added: Vinay (Severity: 3, Arrived: 10:47:03.982098600)
Added: Suresh (Severity: 2, Arrived: 10:47:04.136129500)
Added: Ramesh (Severity: 3, Arrived: 10:47:04.245606200)
Added: Tina (Severity: 1, Arrived: 10:47:04.354730900)
Added: Dinesh (Severity: 4, Arrived: 10:47:04.465729700)
Queue is full! Cannot add more patients.

Current Patient Queue:
Tina (Severity: 1, Arrived: 10:47:04.354730900)
Suresh (Severity: 2, Arrived: 10:47:04.136129500)
Vinay (Severity: 3, Arrived: 10:47:03.982098600)
Ramesh (Severity: 3, Arrived: 10:47:04.245606200)
Dinesh (Severity: 4, Arrived: 10:47:04.465729700)

Treating patients:
Treating: Tina (Severity: 1, Arrived: 10:47:04.354730900)
Treating: Suresh (Severity: 2, Arrived: 10:47:04.136129500)
Treating: Vinay (Severity: 3, Arrived: 10:47:03.982098600)
Treating: Ramesh (Severity: 3, Arrived: 10:47:04.245606200)
Treating: Dinesh (Severity: 4, Arrived: 10:47:04.465729700)
No patients in queue.
```