Java

Assignment

192211633
T. Rajesh

1. Array list operations

1. Add elements to the list
2. Remove an element by index
3. search for an element and print its position
4. Iterate through list and display all elements

```
import java.util.Arraylist;
Public class
ArrayListOperations {
    Public static void
main(String[] args) {
        ArrayList<string> list
 =new ArrayList<>();
        list.add("Apple");
        list.add("Banana");
        list.add("Orange");

        list.add remove(1);
      string searchElement = "Orange";
        int index = list.indexof(search
Element);  if(index!=-1){
```

```
System.out.println(searchElement + " is
found at index : " + index);
        } else {
System.out.println(searchElement + "is not
found in the list.");
                }
        for (String element : list) {
  System.out.println(element);
      }
    }
  }
```

2. HashSet Operations

```
import java.util.HashSet;
Public class HashSetOperations
 {
    Public  static void
main(String[] args) {
          HashSet<String> nameset
= new  HashSet<>();
          nameset.add("John");
          nameset.add("Alice");
          nameset.add("Bob");
  nameset.remove("Alice");
```

```
        String checkName = "Bob";
        if (nameSet.contains(checkName)){
System.out.println(checkName)) {
        } else {
System.out.println(checkName + " is
not found in the set.");}
        for (String name : nameSet){
        System.out.println(name);
            }
        }
    }
```

3. PriorityQueue Operations

```
import java.util.PriorityQueue;
Public class
PriorityQueueOperations {
    Public static void
main(String[] args) {
        PriorityQueue<String>
employeeQueue = new priorityQueue<>();
employeeQueue.add("employee1");
employeeQueue.add("Employee3");
employeeQueue.add("Employee2");
System.out.println("Removed employee:"+
employee.Queue.poll());
```

```
System.out.println("Remaining employees");
        for (String employee : employeeQueue) {
System.out.println(employee);
                }
            }
        }
```

4. Hashup Operations

```
import java.util.HashMap;
import java.util.Map;
Public class HashMapOperations {
        Public static void main(String[]
args ){
            HashMap<Integer, String> student
            Map = New
    Hashmap<>();
                studentMap.put(101, "John");
        studentMap.put(102, "Alice");
      studentMap.put(103, "Bob");
            int searchID = 102;
    (studentMap.containsKey(searchID)){
     } else {
System.out.println ("Student with ID"+
  searchID + "not found!"); }
            studentMap.remove(103);
System.out.println("ID:" + "\nName");
                    } } }
```