Assignment - 1

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CSA0914-Java

1 Arraylist operations

write a java program to perform the following operations using an arraylist. Add elements to the list remove an element by index search for element & display.

```
import java.util.Arraylist;
import java.util.scanner;
Public Class Arraylist Operations{
    Public Static void main(string [] args){
   ArrayList <string> list = new ArrayList<>();
   System.out. println ("enter the name :");
   while (true){
   String input = Scanner.nextline();
   if input equals Ignore Case ("Exit") break;
   list.add (input);
 }
  System.out. Println("Enter name to search");
 String Searchname = scanner.next();
 int position = list index of (Searchname);
 if(Position! = -1){
        System.out.println("found");
}
 else{
        System.out. println ("not found");
}
 for (string name : list){
         System.out.println(name);
 }
  Scanner Close ();
 }
```

② Create a program that demonstrates that use of hash set Store correction of names. Add a name to Set and remove from set, Check set and display all the names.

```
import java.util.Hashset;
import .java.util.Scanner;
 Public Class Hash operations{
      Public Static void main (String [] args){
     Hashset< String>names =new Hash set<>();
    System.out.println("enter name to remove");
    String removename = Scanner.nextline();
    names.remove (remove name);
    System.out.println("enter name to Check:");
    String Checkname = Scanner.nextline();
    if (names contains (Checkname)){
           System.out.println (Checkname);
     }
      else {
          System.out.println ("Current name");
      for(string name: names){
            System.out.println (name);
      } Scanner Close();
    }
 }
```

③ write a Java program that demonstrates the use of a priority queue to share employee, include functionality and priorities and Employee and display a queue.

```
import Java.util. PriorityQueue;
import java.util. Scanner;
  Public Class priority queue Operations {
     Public Static void main(String [] args) {
     priority queue <employee> queue;
     Scanner S = new Scanner (System.in);
    System.out. println ("Enter the names");
    while (true) {
         String input = Scanner.nextline();
        if(input.equals Ignore Case ("Exit"));
}
 Static Class Employee implements Comparable <employee>
 {
   String name ;
   int priority;
   Employee, String name, int priority {
     this.name = name;
     this. priority = priority;
}
  Public int Compare to (Employee others) {
return integer. Compare (this.priority)
}
 }
}
```

④ Create a Hashmap that' Stores Student IDs and their names your program Should add key value Hashmap. Rename a student using their ID display all Student entries.

```
  import. java.util. Hashmap;
  import. java. util. Scanner;
  Public Class HashMap operations{
     Public static void main (String [] args) {
     Hash map < integer, String>
     Student Map: new Hashmap<>();
     Scanner S = new Scanner (System.in);
     System.out.Print ("enter Student ID");
     int  SearchID = Scanner.nextInt();
     if(Student name! = null) {
       System.out.println ("found Student");
 } else {
    System.out.println ("No Student found");
  int removeID = Scanner.nextInt();
  System.out. println("Current Student Entries");
  for (integer  id : Student map.keyset()) {
       System.out.println("ID");
  }
   Scanner.close();
}
}
```