Problem Statement 2:

Develop a Java program that demonstrates the usage of ArrayList to store and manipulate a list of student names.

Solution:

```
import java.util.Scanner;
import java.util.ArrayList;
public class Assignment2 {
   public static void main(String[] args) {
     ArrayList<String> students= new ArrayList<String>();
     Scanner scanner= new Scanner(System.in);

     while(true){
         System.out.println("Enter your choice:\n1: Add New Student\n2: Remove a
Student\n3: Get the list of students\n4: Exit\n");
         int choice=scanner.nextInt();
         scanner.nextLine();
         switch (choice){
             case 1:
                 System.out.println("Enter Name of student to added");
                 String name = scanner.nextLine();
                 if(students.contains(name)){
                     System.out.println("Student with name "+name +" Already
Exists!!");
                 }
                 else{
                     students.add(name);
                     System.out.println(name+" has been Added Successfully!!");
                 }
                 System.out.print("\n");
                 break;
             case 2:
                 System.out.println("Enter Name of the student to be removed");
                 String studentName= scanner.nextLine();
                 if(students.contains(studentName)){
                     students.remove(studentName);
                     System.out.println("Student with name "+studentName +" has
been removed successfully!!");
                 }
```

```
                else{
                    System.out.println("student with name "+studentName+" does not
exists");
                }
                System.out.print("\n");
                break;
            case 3:
                System.out.println("List of students:");
                System.out.println(students);
                System.out.println();
                break;
            case 4:
                System.out.println("Exiting...");
                scanner.close();
                System.exit(0);
            default:
                System.out.println("Invalid Input!! Try Again.");
                System.out.println("\n");
        }
    }
  }
}
```