Assignment 2

Java Mastery Intermediate Methods, Collections, and Beyond

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Problem statement:

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

Code:

```java
import java.util.ArrayList;

new *
public class Students {
    new *
    public static void main(String[] args) {
        ArrayList<String> studentList = new ArrayList<>();
        studentList.add("Ramie");
        studentList.add("Ayesha");
        studentList.add("Palak");
        studentList.add("Mani");
        studentList.add("Vinit");

        System.out.println("List of Student Names:");
        for (String student : studentList) {
            System.out.println(student);
        }

        studentList.add("Anshi");

        System.out.println("\nUpdated List of Student Names:");
        for (String student : studentList) {
            System.out.println(student);
        }

        studentList.remove( o: "Mani");

        System.out.println("\nUpdated List of Student Names after removal:");
        for (String student : studentList) {
            System.out.println(student);
        }
```
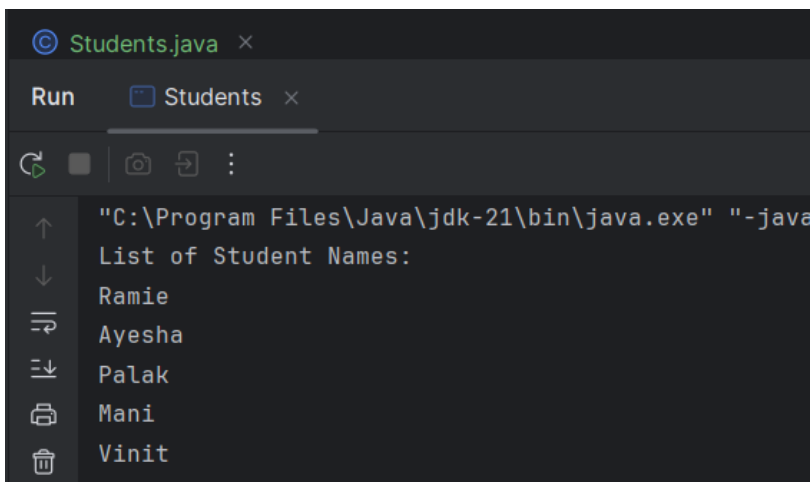
```
31              int size = studentList.size();
32              System.out.println("\nTotal number of students: " + size);
33
34              String searchStudent = "Vinit";
35              if (studentList.contains(searchStudent)) {
36                  System.out.println("\n" + searchStudent + " is present in the list.");
37              } else {
38                  System.out.println("\n" + searchStudent + " is not present in the list.");
39              }
40
41              studentList.clear();
42
43              System.out.println("\nList after clearing:");
44              if (studentList.isEmpty()) {
45                  System.out.println("The list is empty.");
46              } else {
47                  for (String student : studentList) {
48                      System.out.println(student);
49                  }
50              }
51          }
52      }
```

Output:


```
"C:\Program Files\Java\jdk-21\bin\java.exe" "-java
List of Student Names:
Ramie
Ayesha
Palak
Mani
Vinit
```

```
Updated List of Student Names after removal:
Ramie
Ayesha
Palak
Vinit
Anshi


Total number of students: 5
```