

Q#01: Title: Develop a program to help teacher in Student Grade Tracking

Scenario:

```
#include <iostream>
using namespace std;
const int maxStudents = 50;
string studentNames[maxStudents];
int studentGrades[maxStudents];
int studentCount = 0;
void displayWelcomeMessage()
{
    cout<<"Welcome to the Student Grade Tracker:"<<endl;
    cout<<"This tracker is designed by Muhammad Awais Khan:"<<endl;
}
void addStudent() {
    if (studentCount>=maxStudents)
    {
        cout<<"Cannot add more students. The student list is full"<<endl;
    }
    string name;
    int grade;
    cout<<"Enter the student name: "<<endl;
    cin.ignore();
    getline(cin, name);
    cout<<"Enter the student grade: "<<endl;
    cin>>grade;
    studentNames[studentCount] = name;
    studentGrades[studentCount] = grade;
    studentCount++;
    cout<<"Student added successfully!"<<endl;
}
void viewStudents() {
    if (studentCount == 0) {
        cout<<"No student records available." <<endl;
    }
    cout<<"Student Records: " <<endl;
    for (int i = 0; i < studentCount; i++)
    {
        cout<<"Name: "<<studentNames[i]<<" ,Grade:"<<studentGrades[i]<<endl;
    }
}
int main()
{
    int data;
    displayWelcomeMessage();
    do
    {
        cout<<"\nMenu:"<<endl;
        cout<<"1. Add a New Student Record"<<endl;
        cout<<"2. View All Student Records"<<endl;
        cout<<"3. Exit"<<endl;
```

```
    cout<<"Enter your data: "<<endl;
    cin>>data;
    if (data == 1)
    {
        addStudent();
    } else if (data == 2)
    {
        viewStudents();
    } else if (data == 3)
    {
        cout<<"Exit the program. successfully"<<endl;
    } else
    {
        cout<<"Invalid data. Please try again."<<endl;
    }
}
while (data != 3);
return 0;
}
```

Output:

Output

```
Welcome to the Student Grade Tracker:
This tracker is designed by Muhammad Awais Khan:

Menu:
1. Add a New Student Record
2. View All Student Records
3. Exit
Enter your data:
```

Output

```
Welcome to the Student Grade Tracker:  
This tracker is designed by Muhammad Awais Khan:
```

```
Menu:
```

1. Add a New Student Record
2. View All Student Records
3. Exit

```
Enter your data: |
```

```
2
```

```
No student records available.
```

```
Student Records:
```

```
Menu:
```

1. Add a New Student Record
2. View All Student Records
3. Exit

```
Enter your data:
```

Output

```
Welcome to the Student Grade Tracker:  
This tracker is designed by Muhammad Awais Khan:
```

```
Menu:
```

1. Add a New Student Record
2. View All Student Records
3. Exit

```
Enter your data:
```

```
3
```

```
Exit the program. successfully
```

```
=== Code Execution Successful ===
```

Output

Welcome to the Student Grade Tracker:
This tracker is designed by Muhammad Awais Khan:

Menu:

1. Add a New Student Record
2. View All Student Records
3. Exit

Enter your data:

1

Enter the student name:

Muhammad Awais Khan

Enter the student grade:

13

Student added successfully!

Menu:

1. Add a New Student Record
2. View All Student Records
3. Exit

Enter your data:

1

Enter the student name:

haris

Enter the student grade:

32

Student added successfully!

Menu:

1. Add a New Student Record
2. View All Student Records
3. Exit

Enter your data:

1

Enter the student name:

bilal

Enter the student grade:

32

Student added successfully!

Student Records:

Name: Muhammad Awais Khan,Grade:13

Name: haris,Grade:32

Name: bilal,Grade:32

Name: kareem,Grade:4