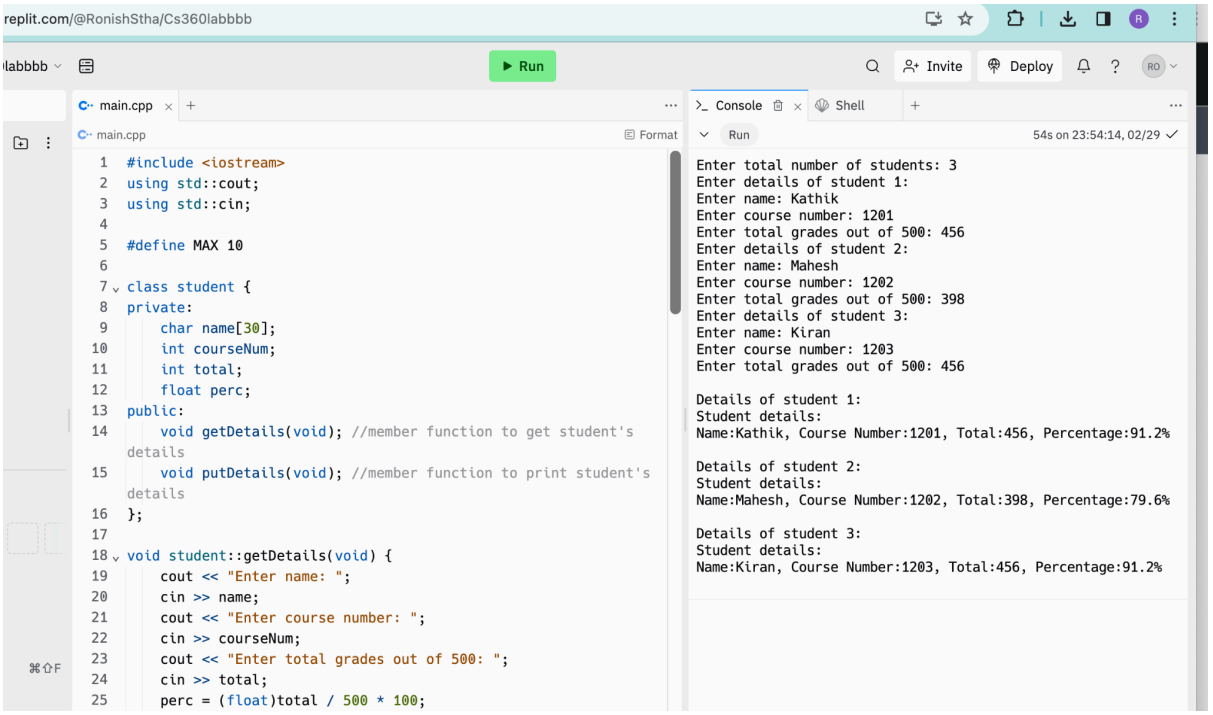
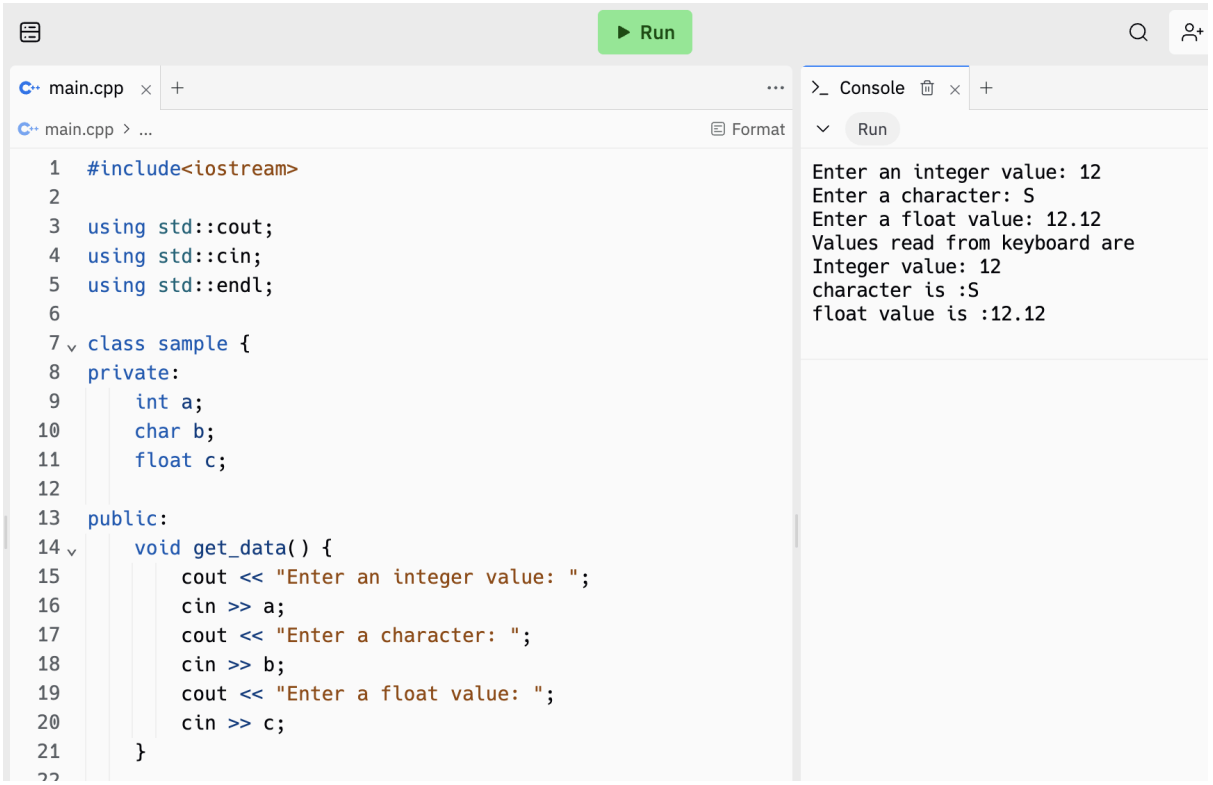
Q1)



```
#include <iostream>
using std::cout;
using std::cin;

#define MAX 10

class student {
private:
    char name[30];
    int courseNum;
    int total;
    float perc;
public:
    void getDetails(void); //member function to get student's details
    void putDetails(void); //member function to print student's details
};

void student::getDetails(void) {
    cout << "Enter name: ";
    cin >> name;
    cout << "Enter course number: ";
    cin >> courseNum;
    cout << "Enter total grades out of 500: ";
    cin >> total;
    perc = (float)total / 500 * 100;
```

```
Enter total number of students: 3
Enter details of student 1:
Enter name: Kathik
Enter course number: 1201
Enter total grades out of 500: 456
Enter details of student 2:
Enter name: Mahesh
Enter course number: 1202
Enter total grades out of 500: 398
Enter details of student 3:
Enter name: Kiran
Enter course number: 1203
Enter total grades out of 500: 456

Details of student 1:
Student details:
Name:Kathik, Course Number:1201, Total:456, Percentage:91.2%

Details of student 2:
Student details:
Name:Mahesh, Course Number:1202, Total:398, Percentage:79.6%

Details of student 3:
Student details:
Name:Kiran, Course Number:1203, Total:456, Percentage:91.2%
```

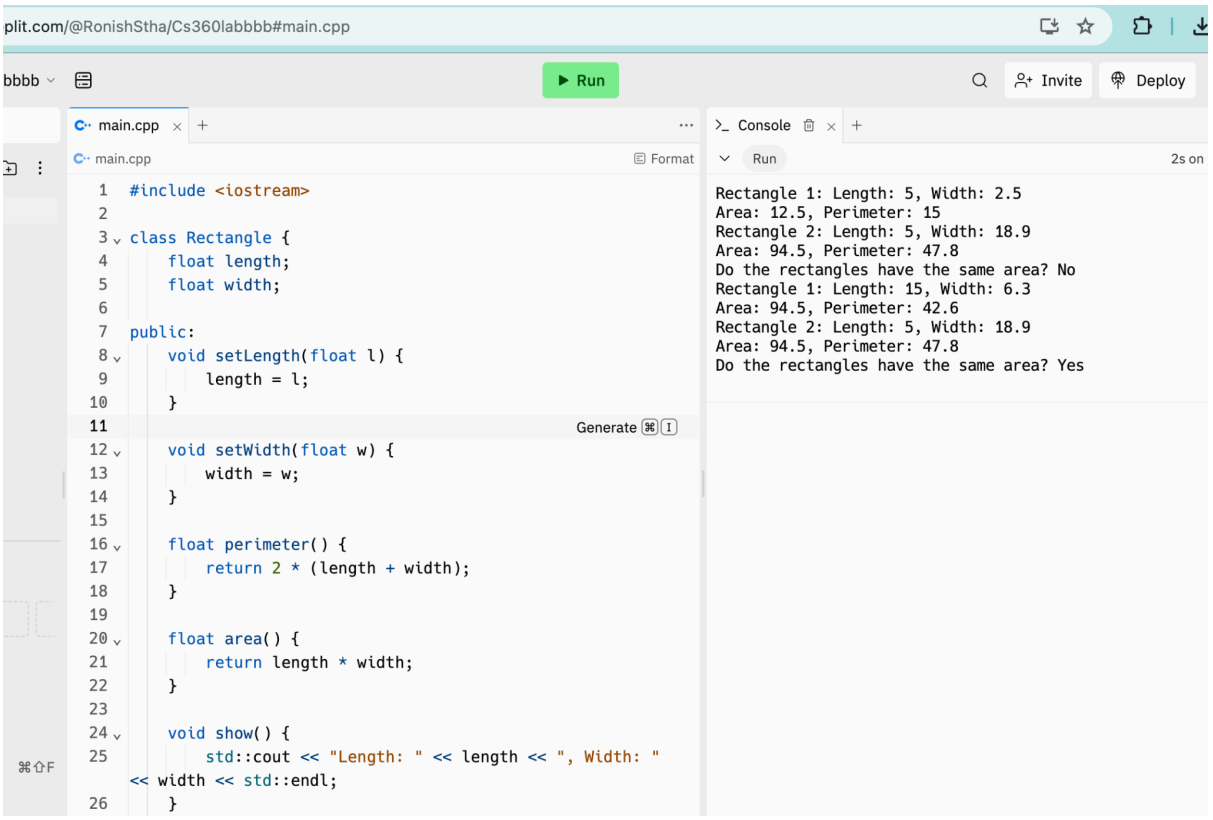
Q2)



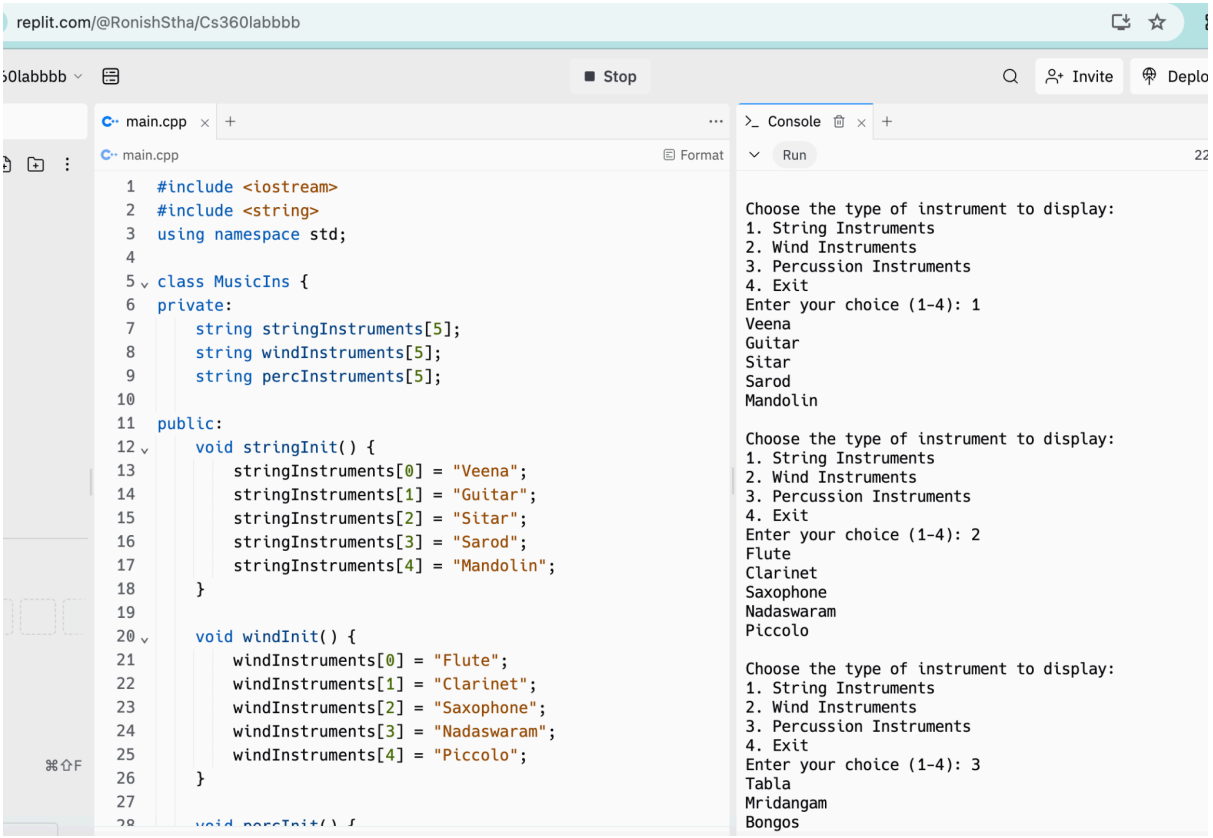
```
#include<iostream>

using std::cout;
using std::cin;
using std::endl;

class sample {
private:
    int a;
    char b;
    float c;

public:
    void get_data() {
        cout << "Enter an integer value: ";
        cin >> a;
        cout << "Enter a character: ";
        cin >> b;
        cout << "Enter a float value: ";
        cin >> c;
    }
```

```
Enter an integer value: 12
Enter a character: S
Enter a float value: 12.12
Values read from keyboard are
Integer value: 12
character is :S
float value is :12.12
```

Q3)


plit.com/@RonishStha/Cs360labbbb#main.cpp
bbbb
Run
Invite
Deploy
main.cpp
main.cpp
Format
Generate ⌘ I
Console
Run
2s on
#include <iostream>
class Rectangle {
float length;
float width;
public:
void setLength(float l) {
length = l;
}
void setWidth(float w) {
width = w;
}
float perimeter() {
return 2 * (length + width);
}
float area() {
return length * width;
}
void show() {
std::cout << "Length: " << length << ", Width: "
<< width << std::endl;
}
Rectangle 1: Length: 5, Width: 2.5
Area: 12.5, Perimeter: 15
Rectangle 2: Length: 5, Width: 18.9
Area: 94.5, Perimeter: 47.8
Do the rectangles have the same area? No
Rectangle 1: Length: 15, Width: 6.3
Area: 94.5, Perimeter: 42.6
Rectangle 2: Length: 5, Width: 18.9
Area: 94.5, Perimeter: 47.8
Do the rectangles have the same area? Yes

Q4)


replit.com/@RonishStha/Cs360labbbb
Stop
Invite
main.cpp
Format
Console
Run
#include <iostream>
#include <string>
using namespace std;
class MusicIns {
private:
string stringInstruments[5];
string windInstruments[5];
string percInstruments[5];
public:
void stringInit() {
stringInstruments[0] = "Veena";
stringInstruments[1] = "Guitar";
stringInstruments[2] = "Sitar";
stringInstruments[3] = "Sarod";
stringInstruments[4] = "Mandolin";
}
void windInit() {
windInstruments[0] = "Flute";
windInstruments[1] = "Clarinet";
windInstruments[2] = "Saxophone";
windInstruments[3] = "Nadaswaram";
windInstruments[4] = "Piccolo";
}
Choose the type of instrument to display:
1. String Instruments
2. Wind Instruments
3. Percussion Instruments
4. Exit
Enter your choice (1-4): 1
Veena
Guitar
Sitar
Sarod
Mandolin
Choose the type of instrument to display:
1. String Instruments
2. Wind Instruments
3. Percussion Instruments
4. Exit
Enter your choice (1-4): 2
Flute
Clarinet
Saxophone
Nadaswaram
Piccolo
Choose the type of instrument to display:
1. String Instruments
2. Wind Instruments
3. Percussion Instruments
4. Exit
Enter your choice (1-4): 3
Tabla
Mridangam
Bongos