Name: Muhammad Zohaib khan

Reg# BSE203003

Subject: OOP LAB

Instructor: Sir Qaisar Manzoor

Date:28-3-2021

Practice Task 1

Create a class Android Device. The data members of the class are IMEI no (int), Type (String), Make (String), Model no (int), Memory(float), Operating System(String). Then Implement member functions to:

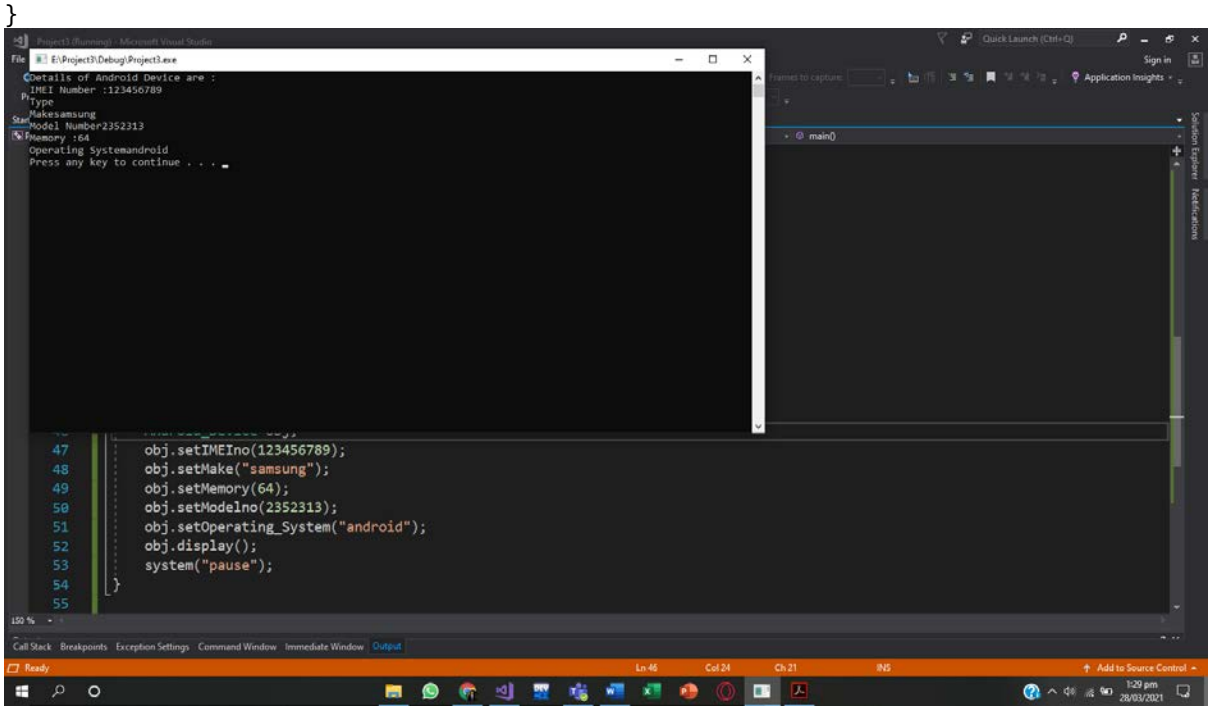
1. Set the values of all data members.
2. Display the values of all data members

Code:

```
#include<iostream>
#include<string>
using namespace std;
class Android_Device {
	int IMEIno;
	string Type;
	string Make;
	int Modelno;
	float Memory;
	string Operating_system;
public:
	void setIMEIno(int imei)
	{
		IMEIno = imei;
	}
	void setType(string type) {
		Type = type;
	}
	void setMake(string make)
	{
		Make = make;
	void setModelno(int modelno) {
		Modelno = modelno;
	}
	void setMemory(float memory) {
		Memory = memory;
	}
	void setOperating_System(string operating_system)
	{
		Operating_system = operating_system;
	}
	void display() {
		cout << "Details of Android Device are :" << endl;
		cout << "IMEI Number :" << IMEIno << endl;
		cout << "Type" << Type << endl;
		cout << "Make" << Make << endl;
		cout << "Model Number" << Modelno << endl;
		cout << "Memory :" << Memory << endl;
		cout << "Operating System" << Operating_system << endl;
	}

};
int main()
{
	Android_Device obj;
	obj.setIMEIno(123456789);
	obj.setMake("samsung");
	obj.setMemory(64);
```

```
        obj.setModelno(2352313);
        obj.setOperating_System("android");
        obj.display();
        system("pause");
}
```



Practice Task 2

Write a class called quadrilateral. Your task is to store the length of all the sides of the quadrilateral and the value of the 2 opposite angles within the quadrilateral. Then implement member functions:

1. To compute the area of the quadrilateral.
2. To compute the parameter of the quadrilateral.
3. A constant function that will display the length of all the sides, the angles, the parameter of the quadrilateral and area of the quadrilateral.
4. Create setter and getter methods.

Code:

```
#include<iostream>
#include<string>
#include<cmath>
using namespace std;
class quadritarel {
private:
        int Side1;
        int Side2;
        int Side3;
        int Side4;
        double Angle1;
        double Angle2;
public:
```

```
void set_side1(int side1) {
	Side1 = side1;
}
int get_side1() {
	return Side1;
}
void set_side2(int side2) {
	Side2 = side2;
}
int get_side2() {
	return Side2;
}
void set_side3(int side3) {
	Side3 = side3;
}
int get_side3() {
	return Side3;
}
void set_side4(int side4) {
	Side4 = side4;
}
int get_side4() {
	return Side4;
}
void set_angle1(float angle1) {
	Angle1 = angle1;
}
double get_angle1(double angle1) {
	return Angle1;
}
void set_angle2(double angle2) {
	Angle2 = angle2;
}
double get_angle2(float angle2) {
	return Angle2;
}
float area()const {
	double angle=Angle1+Angle2;
int s = (Side1 + Side2 + Side3 + Side4) / 2;
	float area;
	area = sqrt((s - Side1)*(s - Side2)*(s - Side3)*(s - Side4));
	cout << "\n Area of quadrilateral is ==" << area;
	return 0;
}
int perimetre()const {
	int perimetre;
	perimetre = Side1 + Side2 + Side3 + Side4;
	cout << "\nPerimatre of Quadrilateral is  " << perimetre << endl;
	return 0;
}
void display()const {
	int x;
	float y;
	x = perimetre();
	y = area();
	cout << "\n Length of side 1 is " << Side1;
	cout << "\n Length of side 2 is " << Side2;
	cout << "\n Length of side 3 is " << Side3;
	cout << "\n Length of side 4 is " << Side4;
	cout << "\nAngle 1 = " << Angle1;
	cout << "\nAngle 2 = " << Angle2;
	cout << x<<endl;
```

```
            cout << y << endl;
        }
};
int main() {
        quadritarel obj;
        obj.set_angle1(80);
        obj.set_angle2(110);
        obj.set_side1(30);
        obj.set_side2(150);
        obj.set_side3(140);
        obj.set_side4(20);
        obj.display();
        system("pause");
}
```