***Problem #1:*** Write a Circle class. Now do the following

i) Initialize radius of 3 circles

ii) Find area of all of them

iii) Find the total area

Source Code :

#include <bits/stdc++.h>

using namespace **std**;

class **Circle**{

int radius;

float area;

double sum = 0;

public :

void **GetInput**(){

int a;

cin **>>** a;

radius = a;

}

void **FindArea**(){

float x = 3.1416 \* radius \* radius;

area = x;

}

void **PrintValue**(){

cout **<<** "Radius : " **<<** radius **<<** '\n';

cout **<<** "Area : " **<<** area **<<** '\n';

}

void **CalSum**(){

sum += area;

}

void **PrintSum**(){

cout **<<** '\n' **<<** "Total Sum : " **<<** sum **<<** '\n';

}

};

int **main**(void){

**Circle** c;

for (int i = 0; i < 3; i++){

c.**GetInput**();

c.**FindArea**();

c.**PrintValue**();

}

c.**CalSum**();

c.**PrintSum**();

}

Input :

10 10 10

Output :

Radius : 10

Area : 314.16

Radius : 10

Area : 314.16

Radius : 10

Area : 314.16

Total Sum : 314.16

***Problem #2:*** Write a **Triangle** class. Now do the following

i) Initialize edges of a triangle

ii) Find area of the triangle

iii) Check whether the 3 edges form a triangle

Source Code :

#include <bits/stdc++.h>

using namespace **std**;

class **Triangle**{

int edge1;

int edge2;

int edge3;

float area;

bool isOk;

public :

void **GetInput**(){

int a, b, c;

cin **>>** a **>>** b **>>** c;

edge1 = a;

edge2 = b;

edge3 = c;

}

void **CanForm**(){

if ((edge1 + edge2 > edge3) || (edge2 + edge3 > edge1) || (edge1 + edge3 > edge2))

isOk = true;

else isOk = false;

**PrintValue**("decision");

}

void **FindArea**(){

float s = (edge1 + edge2 + edge3) / 2;

float x = **sqrt**(s \* (s - edge1) \* (s - edge2) \* (s - edge3));

area = x;

}

void **PrintValue**(**string** s){

if (s **==** "area"){

cout **<<** "Area : " **<<** area **<<** '\n';

}

else if (s **==** "decision"){

if (isOk) cout **<<** "It can form triangle.\n";

else cout **<<** "It can't form triangle.\n";

}

}

};

int **main**(void){

**Triangle** t;

t.**GetInput**();

t.**FindArea**();

t.**CanForm**();

t.**PrintValue**("area");

}

Input :

3 4 5

Output:

It can form triangle.

Area : 6

Problem #3: Write a Account class. Now do the following

i) Initialize 5 accounts

ii) Deposit money to an account

iii) Withdrawal money from an account

iv) Transfer money from one account to another

Source Code :

#include <bits/stdc++.h>

using namespace **std**;

class **Bank**{

int AccNo;

float Balance;

public :

void **SetData**(int n, float b){

AccNo = n; Balance = b;

}

float **GetBalance()** return Balance;

void **SetBalance**(float b)Balance += b;

void **SetWithdrawal**(float b)Balance -= b;

};

**Bank** b[1000]; int Total = 0;

void **Create**(){

int x,y;

cout **<<** "Enter your account no. : \n ";

cin **>>** x;;

y = b[x-1].**GetBalance**();

cout **<<** "Your Balance = " **<<** y **<<** '\n';

}

void **Deposit**(){

int x, y;

cout **<<** "Enter your account no. : \n ";

cin **>>** x;

cout **<<** "Enter amount deposit: \n";

cin **>>** y;

b[x-1].**SetBalance**(y);

cout **<<** "Deposit Successful \n";

}

void **ShowBalance**()cout **<<** "It's coming :) ..\n";

int **main**(void){

int option;

while (1){

cout **<<** "\n\t<----- MAIN MENU ----->\n\n";

cout **<<** "1. New Account\n";

cout **<<** "2. Deposit\n";

cout **<<** "3. Transfer Money\n";

cout **<<** "4. Show Balance\n";

cout **<<** "5. Exit\n\n";

cout **<<** "Enter Your Option - ";

cin **>>** option;

if (option == 1) **Create**();

else if (option == 2) **Deposit**();

else if (option == 4) **Transfer**();

else if (option == 5) **ShowBalance**();

else if (option == 6) break;

else cout **<<** "You entered a wrong number.... Please Enter correct one.\n";

}

}

Input & Output :

<----- MAIN MENU ----->

1. New Account

2. Deposit

3. Withdrawal

4. Transfer Money

5. Show Balance

6. Exit

Enter Your Option – 6