question1.cpp > main()

```cpp
//  Ques : Take 2 integers input and print the greatest of them.
# include <iostream>
using namespace std;
int main(){
    int a;
    cout<<"enter your first number : ";
    cin>>a;
    int b;
    cout<<"enter your second number: ";
    cin>>b;
    if(a>b){
        cout<<a<<" is greater than "<<b;
    }
    else cout<<b<<" is greater than "<<a;
}
```

```
PS C:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3> cd "c:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3\" ; if ($?) { g++ question1.cpp -o question1 } ; if ($?) { .\question1 }
enter your first number : 5
enter your second number: 7
7 is greater than 5
PS C:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3>
```

question2.cpp > main()

```cpp
// Ques : Given the radius of the circle predict whether numerically area of this circle is larger than the cir
# include <iostream>
using namespace std;
int main(){
    int  radius;
    cout<<"enter radius : ";
    cin>>radius;
    int area = 3.14*radius*radius;
    int circumference = 2*3.14*radius;
    if(area > circumference){
        cout<<"area of this circle is greater than circumference";
    }
    else cout<<"circumference of this circle is greater than area";
}

```

```
PS C:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3> cd "c:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3\" ; if ($?) { g++ question2.cpp -o question2 } ; if ($?) { .\question2 }
enter radius : 4
area of this circle is greater than circumference
PS C:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3>
```

question3.cpp > main()

```cpp
// Ques : Any year is input through the keyboard.
//  Write a program to determine whether the year is a leap year or not.
//   (Considering leap year occurs after every 4 year)
# include <iostream>
using namespace std;
int main(){
    int year;
    cout<<"enter your year : ";
    cin>>year;
    if(year%4==0){
        cout<<year<<" is a leap year ";
    }
    else cout <<year<<" is not a leap year.";
}
```

```
PS C:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3> cd "c:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3\" ; if ($?) { g++ question3.cpp -o question3 } ; if ($?) { .\question3 }
enter your year : 1976
1976 is a leap year
PS C:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3>
```

question4.cpp > main()

```cpp
//Given the length and breadth of a rectangle, write a program to find whether numerically the area of
//the rectangle is greater than its perimeter.
# include <iostream>
using namespace std;
int main(){
    int length = 5;
    int breadth = 7;
    int area = length * breadth;
    int perimeter = 2*(length+breadth);
    if(area > perimeter){
        cout<<"area is greater.";
    }
        else cout<<"perimeter is greater.";

}
```

```
PS C:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3> cd "c:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3\" ; if ($?) { g++ question4.cpp -o question4 } ; if ($?) { .\question4 }
area is greater.
PS C:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3>
```

question5.cpp > main()

```cpp
//Write a program to input sides of a triangle and check whether a triangle is equilateral, scalene or
// isosceles triangle.
// Input : side1 = 5 side2 = 4 side3 = 4
// Output: This is an Isosceles triangle.
# include<iostream>
using namespace std;
int main(){
    int a = 5;
    int b = 4;
    int c = 4;
    if(a==b==c){
        cout<<"This is an equilateral triangle.";
    }
    else if ( a==b || b==c ||a==c )
    {
        cout<<"This is an isoceles triangle.";
    }
    else cout<<"This is scalene triangle.";
}
```

```
PS C:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3> cd "c:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3\" ; if ($?) { g++ question5.cpp -o question5 } ; if ($?) { .\question5 }
This is an isoceles triangle.
PS C:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3>
```

question6.cpp > main()

```cpp
// If the marks of A, B and C are input through the keyboard, write a program to determine the student
// scoring the least marks.
// Input 1: A = 23 , B = 34 , C = 71
// Output : 'A' has the least marks
# include<iostream>
using namespace std;
int main(){
    int A;
    cout<<"enter the marks of A : ";
    cin>>A;
    int B;
    cout<<"enter the marks of B : ";
    cin>>B;
    int C;
    cout<<"enter the marks of C : ";
    cin>>C;
    if(A<B && A<C){
        cout<<"'A' has the least marks.";
    }
    else if(B<A && B<C){
        cout<<"'B' has the least marks.";
    }
    else cout<<"'C' has the least marks.";
}
```

```
PS C:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3> cd "c:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3\" ; if ($?) { g++ question6.cpp -o question6 } ; if ($?) { .\question6 }
enter the marks of A : 23
enter the marks of B : 34
enter the marks of C : 71
'A' has the least marks.
PS C:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3>
```

C++ question7.cpp > main()

```cpp
//Given a point (x, y), write a program to find out if it lies on the x-axis,
// y-axis or at the origin, viz. (0, 0).
// Input 1: 2 0
// Output 1: the point lies on the x - axis.
# include<iostream>
using namespace std;
int main(){
    int x;
    cout<<"enter the x point : ";
    cin>>x;
    int y;
    cout<<"enter the y point : ";
    cin>>y;
    if(x==0 && y!=0){
        cout<<"the point lies on the y - axis.";
    }
    else if ( x!=0 && y==0)
    {
        cout<<"the point lies on the x - axis.";
    }
    else if ( x==0 && y==0)
    {
        cout<<" the point lies at the origin.";
    }
    else cout<<"the point is not the any axis.";
}

```

```
PS C:\Users\SANDEEP\Desktop
\coding\c++\class assignmen
t\assignment L3> cd "c:\Use
rs\SANDEEP\Desktop\coding\c
++\class assignment\assignm
ent L3\" ; if ($?) { g++ qu
estion7.cpp -o question7 }
; if ($?) { .\question7 }
enter the x point : 2
enter the y point : 0
the point lies on the x - a
xis.
PS C:\Users\SANDEEP\Desktop
\coding\c++\class assignmen
t\assignment L3>
```

question8.cpp > main()

```cpp
//Given three points (x1, y1), (x2, y2) and
// (x3, y3), write a program to check if all the three points fall on one straight line.
// Input 1: x1 = 1 , y1 = 2 , x2 = 2 , y2 = 3 , x3 = 3 , y3 = 4
// Output 1: All 3 points lie on the same line
# include<iostream>
using namespace std;
int main() {
    int x1, y1, x2, y2, x3, y3;
    cout << "Enter coordinates of first point (x1, y1): ";
    cin >> x1 >> y1;
    cout << "Enter coordinates of second point (x2, y2): ";
    cin >> x2 >> y2;
    cout << "Enter coordinates of third point (x3, y3): ";
    cin >> x3 >> y3;
    float slope1 = (y2 - y1) * 1.0 / (x2 - x1);
    float slope2 = (y3 - y2) * 1.0 / (x3 - x2);
    if(slope1==slope2){
        cout<<" All 3 points lie on the same line";
    }
    else cout<<" All 3 points do not lie on the same line";
    }

```

```
PS C:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3> cd "c:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3\" ; if ($?) { g++ question8.cpp -o question8 } ; if ($?) { .\question8 }
Enter coordinates of first point (x1, y1): 1 2
Enter coordinates of second point (x2, y2): 2 3
Enter coordinates of third point (x3, y3): 3 4
 All 3 points lie on the same line
PS C:\Users\SANDEEP\Desktop\coding\c++\class assignment\assignment L3>
```

question9.cpp > main()

```cpp
//Write a C++ program to input any character and check whether it is the alphabet, digit or special
// character.
// Input 1: ch = '9'
// Output 1: digit
# include<iostream>
using namespace std;
int main(){
    char x;
    cout<<"enter your character : ";
    cin>>x;
    int y =int(x);
    if((y>=65 && y<=90) || (y>=97 &&y<=122)){
        cout<<"alphabet.";
    }
    else if (y>=48 && y<=57)
    {
        cout<<"digit.";
    }
    else cout<<"special character.";
}
```

```
PS C:\Users\SANDEEP\Desktop
\coding\c++\class assignmen
t\assignment L3> cd "c:\Use
rs\SANDEEP\Desktop\coding\c
++\class assignment\assignm
ent L3\" ; if ($?) { g++ qu
estion9.cpp -o question9 }
; if ($?) { .\question9 }
enter your character : 9
digit.
PS C:\Users\SANDEEP\Desktop
\coding\c++\class assignmen
t\assignment L3>
```

question10.cpp

```cpp
//Predict the output of the below code:
//#include<iostream>
// using namespace std;
// int main() {
//  int a = 500, b, c;
//  if (a >= 400)
//  b = 300;
//  c = 200;
//  cout << "value of b and c are respectively " << b << " and " << c;
//  return 0;
// }

// value of b and c are respectively 300 and 200
```