C++ SIZEOF OPERATOR

The **sizeof** is a keyword, but it is a compile-time operator that determines the size, in bytes, of a variable or data type.

The sizeof operator can be used to get the size of classes, structures, unions and any other user defined data type.

The syntax of using sizeof is as follows:

```
sizeof (data type)
```

Where data type is the desired data type including classes, structures, unions and any other user defined data type.

Try the following example to understand all the sizeof operator available in C++. Copy and paste following C++ program in test.cpp file and compile and run this program.

```
#include <iostream>
using namespace std;

int main()
{
   cout << "Size of char : " << sizeof(char) << endl;
   cout << "Size of int : " << sizeof(int) << endl;
   cout << "Size of short int : " << sizeof(short int) << endl;
   cout << "Size of long int : " << sizeof(long int) << endl;
   cout << "Size of float : " << sizeof(float) << endl;
   cout << "Size of double : " << sizeof(double) << endl;
   cout << "Size of wchar_t : " << sizeof(wchar_t) << endl;
   return 0;
}
```

When the above code is compiled and executed, it produces the following result, which can vary from machine to machine:

```
Size of char : 1
Size of int : 4
Size of short int : 2
Size of long int : 4
Size of float : 4
Size of double : 8
Size of wchar_t : 4
```