



Lesson 7 CPP set

set works exactly like a vector, the only difference that set sorts automatically its elements and eliminates the repetition.

We have to include the library and define a set :

```
set <data type> name_of_set;
```

If we want to add elements into a set, we use **insert(x)**:

```
#include <iostream>
```

```
#include <set>
```

```
using namespace std;
```

```
int main() {
```

```
    set <int> x;
```

```
    x.insert(9);
```

```
    x.insert(1);
```

```
    x.insert(4);
```

```
    x.insert(3);
```

```
    x.insert(9);
```

```
}
```

How to print the elements of a set ?

// Creating a iterator pointer



```
set <int> ::iterator it;
```

```
//creating the for loop
```

```
for (it = x.begin(); it != x.end(); it++)
```

```
cout << (*it) << endl;
```

example :

```
#include <iostream>
```

```
#include <set>
```

```
using namespace std;
```

```
int main() {
```

```
set <int> x;
```

```
x.insert(9);
```

```
x.insert(1);
```

```
x.insert(4);
```

```
x.insert(2);
```

```
x.insert(3);
```

```
x.insert(9);
```

```
x.insert(4);
```

```
set <int> ::iterator it;
```

```
for (it = x.begin(); it != x.end(); it++)
```

```
cout << (*it) << " ";
```

```
}
```

Output:

1 2 3 4 9 > **sorted and no repeated elements**