

C++ Programming

STL Tuple

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STL Tuple: A generalization of pair

```
5 int main() {
6     tuple<char, int, string> t1;
7     t1 = make_tuple('c', 10, "mostafa");
8
9     // Get<position>    c, 10
10    cout << get < 0 > (t1) << " " << get < 1 > (t1) << "\n";
11
12    // Set<position>
13    get < 0 > (t1) = 'd';
14
15    cout << (t1 <= t1) << "\n";    // we can compare tuples
16
17    char ch;
18    int val;
19    string name;
20
21    // tie unpack the tuple values into separate variables
22    tie(ch, val, name) = t1;
23    cout << name << "\n";
24
25    // Concatenating 2 tuples to return a new tuple
26    auto t2 = tuple_cat(t1, make_tuple(10.6));
27
28    // C++17 some nicer syntax. Don't try unless C++17 compilation
29    int c, d;
30    //auto [c, d] = std::make_tuple(4, 5);
31}
```

“Acquire knowledge and impart it to the people.”

“Seek knowledge from the Cradle to the Grave.”