CSC2111 Computer Science I Lab

Lab 16

Objectives

Create a templated class

Example

Implement a two parameter function that displays the first parameter, then the second, then the first. Both parameters must be the same **Templated** type.

Solution

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

template<class T>
void sammy(T bun, T meat) {
     cout << bun << " "
          << meat << " "
          << bun << endl;
}

int main(void) {
     sammy("bun", "burger");
     sammy(3, 2);
     sammy(4.1, 6.3);
}
```

```
bun burger bun
3 2 3
4.1 6.3 4.1
Press any key to continue . . .
```

Example

Implement a class that uses a **Templated** member variable to store a type.

Solution

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

template<class T>
class NamedVar {
public:
	NamedVar(string n) : name(n) {};
	NamedVar(string n, T v) : name(n), value(v) {};
	void display() {
		cout << name.c_str() << " " << value << endl;
	}
private:
	T value;
	string name;
};

int main(void) {
	NamedVar<int> i("INTEGER", 3);
	NamedVar<double> f("DOUBLE", 3.1);

	i.display();
	f.display();

	return 0;
}
```

```
INTEGER 3
DOUBLE 3.1
Press any key to continue . . .
```