

Philip Pesic

Week 6

September 25 2022

Week 6 Lecture 6 Notes

Template Variables

A template variable is a variable that can be used as a placeholder for several data types.

Template variables are often used in classes to substitute data types when a class is being used to define several objects.

Ex:

```
Template <class T>
```

```
T func(T x) {cout << x;}
```

```
func<float>(x);
```

2 or more templates

Multiple template variables can also be used in a single program.

Ex:

```
Template <class T1, T2>
```

```
T1 x;
```

```
T2 y;
```

Static functions/variables

By using the keyword **static** in front of a variable or function, it makes the function/variable a static member. Essentially, a static member cannot be duplicated when multiple objects of a class are created. `::` is used to assign the static member to a class.

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Ex: static int x;

class myClass {

Cout << "Hello World";

}

Int myClass::x;

//Now, when objects are created for myClass, int x is not duplicated