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Week 7

March 5 2023

Week 7 Lecture Notes

Functions

Functions are a form of non-contiguous code reuse - they allow for a programmer to execute a block of code with a single command, without rewriting the entire block. Since functions can be called everywhere, they are considered non-contiguous. Function syntax:

Ex:

```
returnType name (args) {  
    Block  
    return  
}
```

Predefined vs user-defined functions

Predefined functions are considered functions that are predefined by the system/library you are using. User defined functions, on the other hand, are functions that you, the programmer, writes in their code.

System defined:

```
Math.cos(double x); max(12, 111);
```

User defined:

```
Public static int sq(int x) {  
    Return x * x;  
}
```

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Function setup

A function's returnType and parameters/args can both have 2 states - void and nonvoid. These determine whether or not a function has a returnType or parameters. For example, void myFunc(void); has no parameters and does not return a value.

Ex:

Void func(void); int func(void); void func(int x); int func(int x);