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Week 16

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Week 16 Lecture Notes

Method Overloading

Method overloading is the act of writing several methods with the same name. By writing methods with the same name but different parameters, it is possible to call two separate methods with the same method name. The method with the corresponding number/datatype of arguments is called.

Ex:

```
void func(int x) { System.out.println("I'm a number"); }
```

```
void func(char x) { System.out.println("I'm a letter"); }
```

```
func('c');
```

```
func(3);
```

Exceptions

Method overloading has a few exceptions. Since method overloading has strict rules, some functions may not count as overloading and thus throw errors. Examples include functions with different return types but same arguments, or same functions with different errors thrown.

Ex:

```
void func(); //Normal function
```

```
static void func(); //Static does not fit overloading rules
```

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Return types

Overloaded methods can have the same, different, or void return types. The only differentiating factor between overloaded methods is the parameters.

Ex:

```
int func(int x) { return x*2; }
```

```
double func(double x) { return x/2; }
```