#### **PHP Function**

PHP functions are similar to other programming languages. A function is a block of statements that can be used repeatedly in a program. A function will not execute automatically when a page load. A function will be executed by a call to the function.

# Defining Your Own Functions

We use the function keyword to define a function, we name the function and take optional argument variables. The body of the function is in a block of code { }

```
function greet() {
    print "Hello\n";
}
greet();
greet();
```

Hello Hello

## **Choosing Function Names**

- Much like variable names but do not start with a dollar sign
- Start with a letter or underscore consist of letters, numbers, and underscores ( )
- Avoid built-in function names
- Case does not matter but please do not take advantage of this

#### **PHP Functions with Parameters**

To specify strict we need to set declare(strict\_types=1);. This must be on the very first line of the PHP file. The strict declaration forces the variables to be declared very strictly.

```
<?php declare(strict_types=1); // strict requirement

function addNumbers(int $a, int $b) {
   return $a + $b;
}
echo addNumbers(5, "5");
// since strict is enabled and "5 " is not an integer, an error will be thrown
?>
```

## Return Values

Often a function will take its arguments, do some computation, and return a value to be used as the value of the function call in the calling expression. The return keyword is used for this.

```
function greeting() {
    return "Hello";
}

print greeting() . " Glenn\n";
print greeting() . " Sally\n";
```

### **PHP Default Argument Value**

You can set a parameter to have a default value if the function's caller doesn't pass it.

# Optional Arguments Arguments can have defaults, and so can be omitted. function howdy(\$lang='es') { if (\$lang == 'es') return "Hola"; if (\$lang == 'fr') return "Bonjour"; return "Hello"; } print howdy() . " Glenn\n"; print howdy('fr') . " Sally\n";

# Call By Value

- The argument variable within the function is an "alias" to the actual variable.
- But even further, the alias is to a \*copy\* of the actual variable in the function call.

```
function double($alias) {
    $alias = $alias * 2;
    return $alias;
}
$val = 10;
$dval = double($val);
echo "Value = $val Doubled = $dval\n";
Value = 10 Doubled = 20
```

## Call By Reference

Sometimes we want a function to change one of its arguments, so we indicate that an argument is "by reference" using ( & ).

```
function triple(&$realthing) {
    $realthing = $realthing * 3;
}

$val = 10;
triple($val);
echo "Triple = $val\n";
Triple = 30
```