

# APPMOB - Javascript Functions

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# Functions as First-Class Objects

In Javascript, a function is a **first-class object**. In other words, it's a value like any other value, such as a number, string, object or array. It can be stored in variables and passed as an argument.

```
function whatIs(arg) {  
  console.log(typeof(arg));  
}
```

```
whatIs(3);           // "number"  
whatIs(true);        // "boolean"  
whatIs("foo");        // "string"  
whatIs({ a: "b" });  // "object"  
whatIs([1, 2, 3]);   // "array"
```

```
var add = function(a, b) {  
  return a + b;  
}
```

```
whatIs(add); // "function"
```

# Function Declaration

Here are some ways to declare functions.

You can store a function in a **variable**.

```
var add = function(a, b) {  
  return a + b;  
};
```

```
add(1, 2); // 3
```

```
function sub(a, b) {  
  return a - b;  
}
```

You can define a **named** function.

Note that when you use it, there's no difference between a function stored in a variable and a named function.

```
sub(1, 2); // -1
```

You can define and pass an **anonymous** function directly, using neither a variable nor a name.

```
downloadItems(function(items) {  
  // do something with items  
});
```

You can store a function as the **property of an object**.

```
var o = {  
  mul: function(a, b) {  
    return a * b;  
  }  
};
```

```
o.mul(2, 3); // 6
```