

FOR LOOPS

PROF. DAVID ROSSITER



AFTER THIS PRESENTATION

 You'll be able to create different kinds of for loop

WE WILL LOOK AT

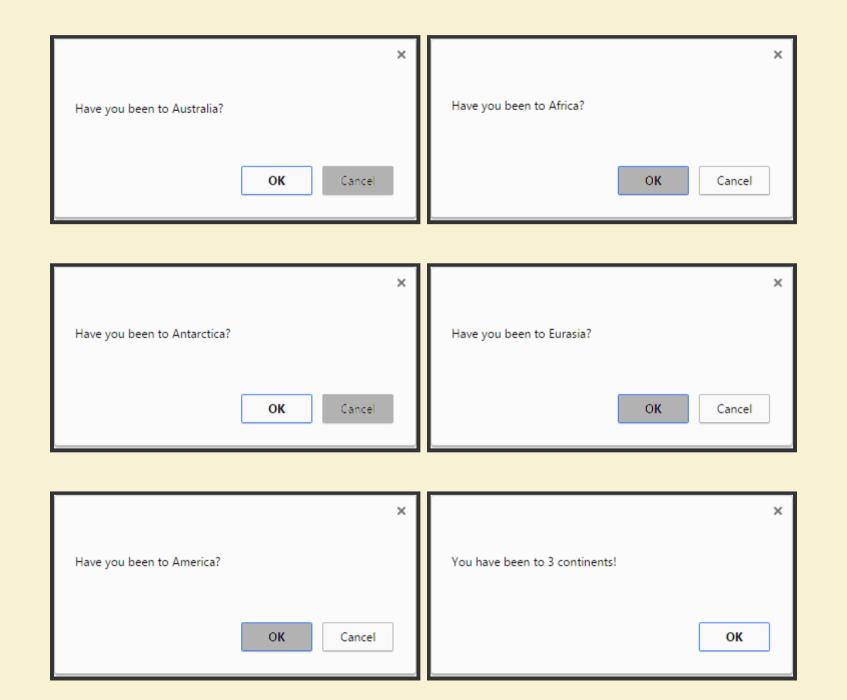
```
for...in
```

FOR LOOPS

- for clearly shows the start and end values
- for is especially good for handling a series of data

• (data_structure.length tells you how many items data_structure contains)

```
<html><head>
  <script>
  var continents=["Australia", "Africa",
      "Antarctica", "Eurasia", "America"];
  var response, count=0;
    for (var index=0; index < continents.length;</pre>
                       index++) {
      response = confirm("Have you been to " +
                          continents[index] + "?");
      if (response) count++;
    alert("You have been to " + count +
          " continents!");
  </script>
</head></html>
```



FOR ... IN LOOPS

• for ... in gives you the index of each item

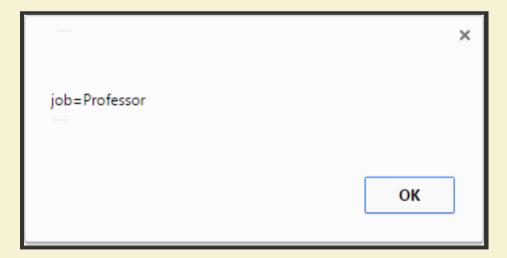
```
<!doctype html>
<html><head>
  <script>
    var continents=["Australia", "Africa",
      "Antarctica", "Eurasia", "America"];
    var response, count=0;
    for (var index in continents) {
      response=confirm("Have you been to "
               + continents[index] + "?");
      if (response) count++;
    alert("You have been to " + count +
          " continents!");
  </script>
</head></html>
```

FOR ... IN LOOPS

• This example shows how for ... in can be used to access the content of a data structure

```
<!doctype html>
<html><head>
  <title>Example of for in</title>
  <script>
  var response, count=0;
  var onePerson = { initials:"DR", age:40,
                    job:"Professor" };
  for (var property in onePerson) {
    alert(property + "=" + onePerson[property]);
  </script>
</head></html>
```





FOR ... OF LOOPS

• for ... of gives you each item

```
<!doctype html>
<html><head>
  <title>Example of for of</title>
  <script>
  var continents=["Australia", "Africa",
      "Antarctica", "Eurasia", "America"];
  var response, count=0;
  for (var continent of continents) {
    response = confirm("Have you been to " +
                       continent + "?");
    if (response) count++;
  alert("You have been to " + count + " continents!");
  </script>
</head></html>
```

OMITTING PARTS

- The 3 parts of the for can be omitted
- E.g. this will make an infinite loop:

```
for (;;) {
    alert("Welcome!");
}
```

This is OK:

```
var number=1;
for ( ; number <= 12; number++ ) {
    alert(number + " times 9 = ", number * 9);
}</pre>
```

So is this: