

## Foreach Loops

- Iteration statements are critical to a functioning ‘loop.’ Iteration statements result in the statements within the iteration are executed repeatedly. The amount of times the code is looped depends on the iteration statement parameters.
- For loops are a version of iteration statements. These loops contain particular clauses that change the initialization and iteration of a looped code block. Other than that, they are the same as while loops. The clauses include the init, condition, and iteration clauses.
- Iteration code blocks must always return something, unlike void functions. If you don’t return something, you will err out.
- Another type of loop is the “foreach” loop. This iteration loops through each element in an enumerable object. This is useful, as almost every type in C# that are used to represent a set or list of elements are enumerable, like strings, arrays, and lists.

- `public char[] hello = {‘h’, ‘e’, ‘y’, ‘d’, ‘u’, ‘d’, ‘e’};`

```
public void HeyDude (char c) {  
    foreach (char c in hello) {  
        print(c);    //heydude  
    }  
}
```

- `public int o;`  
`string[] numbers = {“one”, “two”, “three”};`

```
void goCounting (char c) {  
    for (int o, o<3, ++o) {  
        print(numbers[c])  
    }  
}
```

```
        print(o);
```

```
    }
```

- `public int[] numbers = {1,2,3,4,5};`

```
    public void onetoFive (int i) {
```

```
        foreach (int i in numbers) {
```

```
            print(i);
```

```
        }
```

```
    }
```

- `public char[] hello = {'w', 'h', 'a', 't', 's', 'u', 'p'};`

```
    public void WhatsUp (char c) {
```

```
        foreach (char c in hello) {
```

```
            if (c == 's') continue;
```

```
            print(c);
```

```
        }
```

```
    }
```

- `public int[] numbers = {0,2,3,4,6,8};`

```
    public void evenNum (int i) {
```

```
        if (i == 3) continue;
```

```
        foreach (int i in numbers) {
```

```
            print(i);
```

```
        }
```

```
    }
```

- `public char[] spelling = {'p', 'e', 'a', 'w', 'n', 'u', 't'};`

```
public void SpellingBee (char c) {  
    foreach (char c in spelling) {  
        if (c == 'w') goto char[4];  
        print(c);  
    }  
}
```