

# Python to Java Basics

## 1. Variable Declaration

Python:

```
x = 10
```

Java:

```
int x = 10;
```

## 2. Function Definition

Python:

```
def greet(name):  
    print("Hello, " + name)
```

Java:

```
public void greet(String name) {  
    System.out.println("Hello, " + name);  
}
```

## 3. If Statement

Python:

```
if x > 5:  
    print("Greater")
```

Java:

```
if (x > 5) {  
    System.out.println("Greater");  
}
```

## 4. While Loop

Python:

```
while x < 10:  
    x += 1
```

Java:

```
while (x < 10) {  
    x += 1;  
}
```

## 5. For Loop

Python:

```
for i in range(5):  
    print(i)
```

Java:

```
for (int i = 0; i < 5; i++) {  
    System.out.println(i);  
}
```

## 6. List vs Array

Python:

```
nums = [1, 2, 3]
```

Java:

```
int[] nums = {1, 2, 3};
```

## 7. Class and Object

Python:

```
class Dog:  
    def __init__(self, w):  
        self.w = w
```

```
d = Dog(25)
```

Java:

```
public class Dog {  
    int w;  
    public Dog(int w) {  
        this.w = w;  
    }  
}
```

```
Dog d = new Dog(25);
```