Python to Java - Intermediate Examples

8. String Manipulation

Python:

```
name = 'Alice'
print(name.upper())
```

Java:

```
String name = "Alice";
System.out.println(name.toUpperCase());
```

9. List Comprehension vs Loop

Python:

```
squares = [x*x for x in range(5)]
```

Java:

```
int[] squares = new int[5];
for (int i = 0; i < 5; i++) {
    squares[i] = i * i;
}
```

10. Dictionary vs HashMap

Python:

```
ages = {'Alice': 25, 'Bob': 30}
print(ages['Alice'])
```

Java:

```
Map<String, Integer> ages = new HashMap<>();
ages.put("Alice", 25);
ages.put("Bob", 30);
System.out.println(ages.get("Alice"));
```

11. Try-Except vs Try-Catch

Python:

```
try:
    x = 10 / 0
except ZeroDivisionError:
```

```
    print('Error')
```

Java:

```
try {
    int x = 10 / 0;
} catch (ArithmeticException e) {
    System.out.println("Error");
}
```

12. Class Inheritance

Python:

```
class Animal:
    def speak(self):
        print("...")

class Dog(Animal):
    def speak(self):
        print("Woof")
```

Java:

```
class Animal {
    void speak() {
        System.out.println("...");
    }
}

class Dog extends Animal {
    void speak() {
        System.out.println("Woof");
    }
}
```

13. List vs ArrayList

Python:

```
my_list = [1, 2, 3]
my_list.append(4)
```

Java:

```
ArrayList<Integer> myList = new ArrayList<>();
myList.add(1);
myList.add(2);
myList.add(3);
myList.add(4);
```

14. Reading a File

Python:

```
with open('file.txt', 'r') as f:
    content = f.read()
```

Java:

```
try {
                                String content = new
String(Files.readAllBytes(Paths.get("file.txt")));
} catch (IOException e) {
    e.printStackTrace();
}
```