



# Java Cheatsheet II

## Arrays

```
String[] coffee = {"Americano", "Cappuccino",  
"Espresso", "Latte", "Mocha", "Cold Brew"};  
  
int[] passcode = new int[10];  
// Integer array initialized with 10 elements
```

## Indexes

```
System.out.println(coffee[2]);  
// Output: Espresso
```

## Length

```
System.out.println(coffee.length);  
// Output: 6
```

## Organizing Data

```
import java.util.Arrays;  
  
int[] a = {1, 2, 3};  
int[] b = {2, 3, 1};  
  
Arrays.sort(b);           // [1, 2, 3]  
Arrays.equals(a, b);      // true
```

## Methods

```
public static void greeting(String name) {  
    System.out.println("Hi, " + name + "!");  
}  
  
public static boolean isValid(String phone) {  
    return phone.length == 10;  
}
```

## Calling a Method

```
isThisNumberEven(99);  
  
// saving method result to an array  
int[] squaredNumbers = squaresOf(numbers);
```

## Classes

```
class Student {  
    String fullName;  
    int studentId;  
    double gpa;  
}
```

## Objects

```
Student gabby = new Student();  
// assigning data to object  
gabby.gpa = 3.5;
```

## Parameterized Constructors

```
class Laptop {  
    String model;  
    double version;  
  
    Laptop (String model, double version) {  
        this.model = model;  
        this.version = version;  
    }  
}
```

## Utility Functions

```
import java.util.Random;  
  
Random rand = new Random();  
int guess = rand.nextInt(11);  
  
double result = Math.sqrt(25);  
int upper = Math.max(8, 15);  
int lower = Math.min(8, 15);
```

## Access Modifiers

- public: Methods/variables/classes accessible by any class
- private: Methods/variables/classes accessible only inside the same class
- protected: Methods/variables/classes visible to classes in the same package