

Basic Java Concepts Quick Reference

1. Create a class

Syntax:

```
modifier class ClassName {  
    //Class body  
    //Member variables and method declarations go here  
}
```

Example:

```
public class HelloWorld {  
    //Class body  
    //Member variables and method declarations go here  
}
```

2. Declare and define a variable

Syntax:

```
//declare a variable  
dataType variableName;  
//Assign a value  
variableName = value;  
  
//or you can do it all in one line  
dataType variableName = value;
```

Example:

```
//declare a variable  
int variableName;  
//Assign a value  
variableName = 10;  
//or you can do it all in one line  
int variableName = 10;
```

3. Create methods

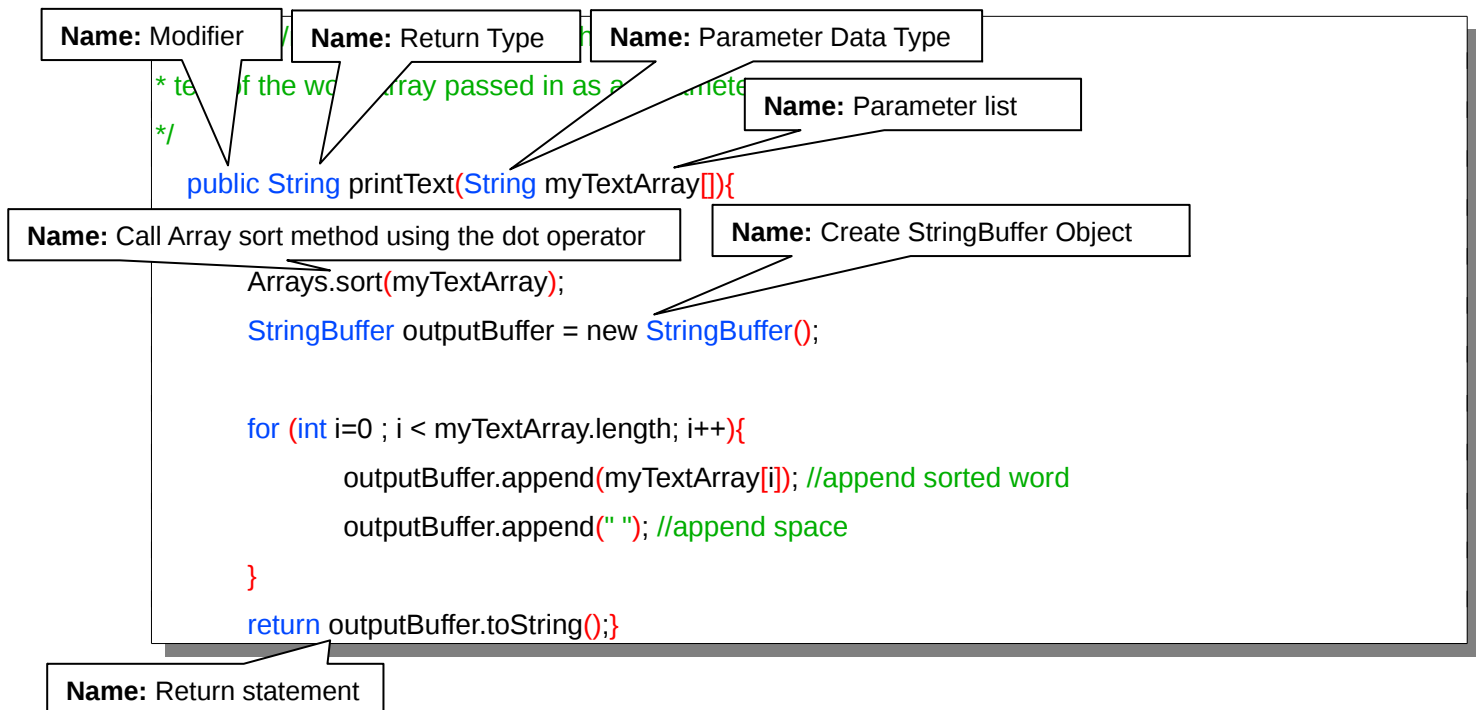
Syntax:

```
access_modifier return_type methodName(parameter_dataType parameterName){  
    //method body - Java statements go here  
}
```

Example:

```
/*  
 * This is a public method that takes an int as a * parameter and returns a  
 * String result  
 */  
public String myMethod(int one){  
    if(one%2 == 0){  
        return "Even";  
    }  
    return "Odd";  
}  
  
or  
  
public String myMethod(int one){  
    String result = "Odd";  
    if(one%2 == 0){  
        result = "Even";  
    }  
    return result;  
}
```

Anatomy of a Java Method:



4. Creating Java Objects and calling methods

Syntax:

```
//Create an Object of ClassDataType using the new keyword and assign to a variable
ClassDataType variableName = new ClassDataType();

//Use the .dot operator to call/invoke the method of the class
variableName.classMethod();

//If the method is static you do not need to create an Object of the class.
//You can call/invoke a method using only the class name
ClassDataType.classMethod();

//Use the .dot operator to call/invoke the method of the class
//and assign the value returned by method
dataType myValue = variableName.classMethod();
```

Example:

```
//Create an Object of Circle data type using the new keyword and assign to variable circle  
Circle circle = new Circle();  
  
//Use the .dot operator to call/invoke the setRadius method of the circle object passing in a parameter  
circle.setRadius(5);  
  
//Use the .dot operator to call/invoke the getRadius method of the class //and assign the value returned by method to the radius variable  
int radius = circle.getRadius();  
  
//Call/invoke the static method of the class Circle  
int circumference = Circle.getCircumferece();
```