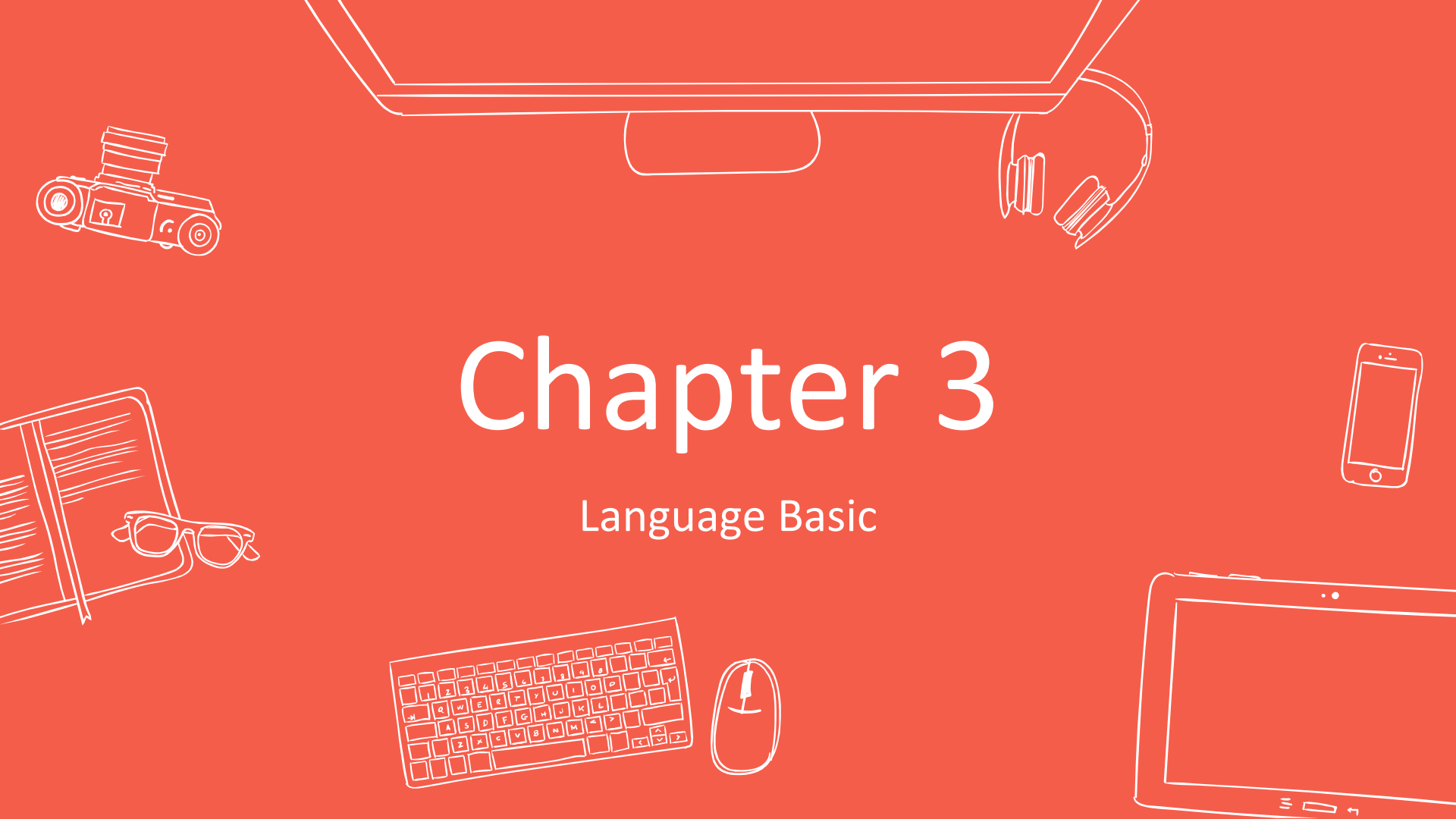


# Chapter 3

## Language Basic



# Language Basic

Comments

Variable

Operators

Expression, Statement and Block

Control Flow

# Comments

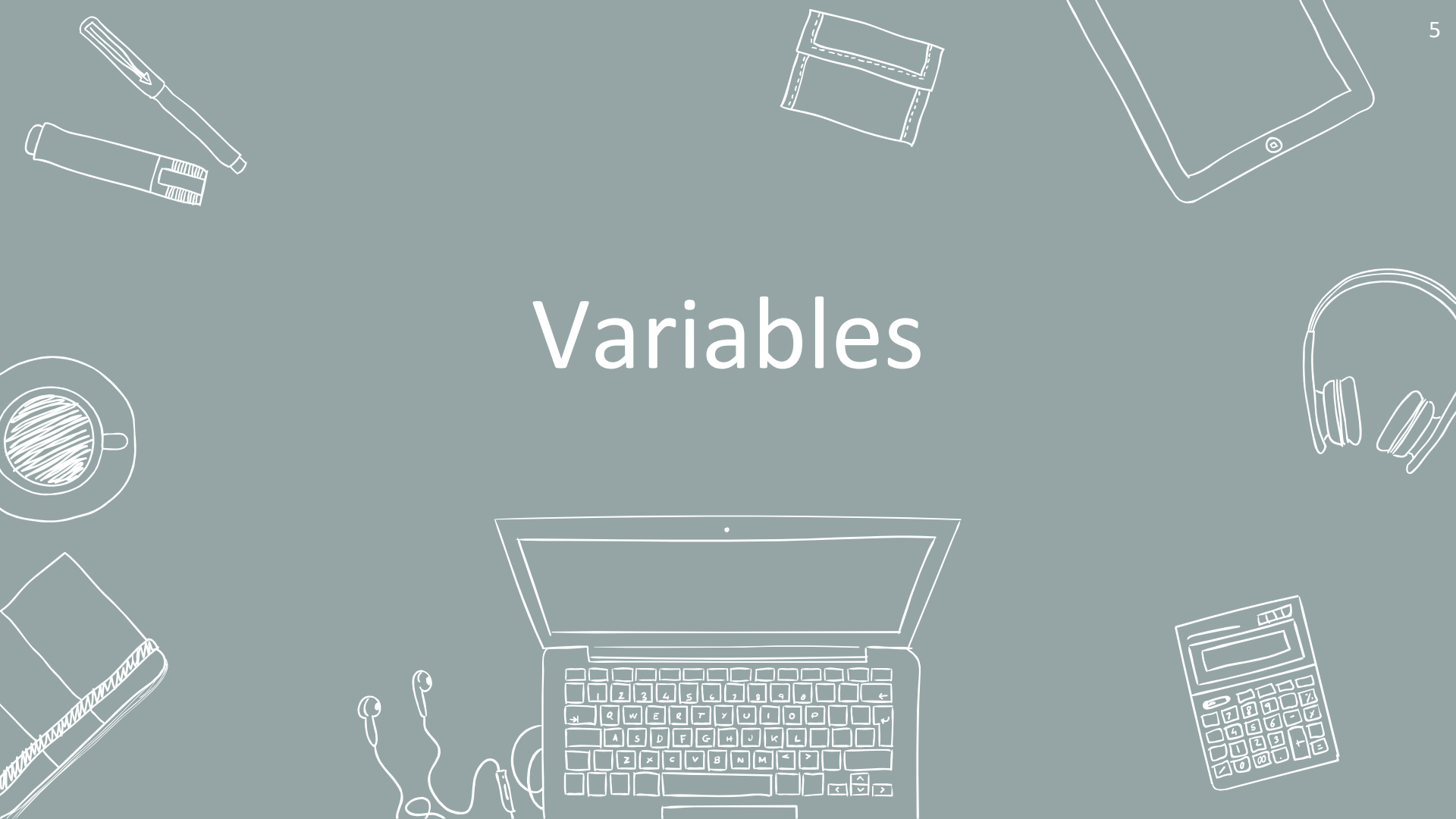


## Comment

Java supports following type of comments

- Single line comment
  - E.g. `// This is test`
- Multi-line comment
  - E.g. `/* This is test */`
- Java Doc comment
  - E.g. `/** Class, Method or variable document comment */`

# Variables



# Variable Names

Case-sensitive

Naming

- Can begin with a letter, \$ or \_.
- Can not start with number
- White space is not permitted.
- Subsequent characters may be letters, digits, \$, or \_.

Use camel case for variable name

## Variable Names

For constants use all uppercase with underscore character as separator

Parameter always start with a prefix

Use “this” prefix for instance variable.

## Variables Example

```
int numberOfStudents;  
float PI_VALUE = 3.14;  
int add (int aFirstNumber, int aSecondNumber) {  
    return aFirstNumber + aSecondNumber -  
    this.index; }  
String NULL_VALUE = null;
```



# Data Type

Primitive Data Types

Object Data Type

# Primitive Data Types

**byte:** The byte data type is an 8-bit signed two's complement integer. It has a minimum value of -128 and a maximum value of 127 (inclusive).

**short:** The short data type is a 16-bit signed two's complement integer. It has a minimum value of -32,768 and a maximum value of 32,767 (inclusive).

**int:** The int data type is a 32-bit signed two's complement integer. It has a minimum value of -2,147,483,648 and a maximum value of 2,147,483,647 (inclusive).

**long:** The long data type is a 64-bit signed two's complement integer. It has a minimum value of -9,223,372,036,854,775,808 and a maximum value of 9,223,372,036,854,775,807 (inclusive).

# Primitive Data Types

**float:** The float data type is a single-precision 32-bit IEEE 754 floating point. **This data type should never be used for precise values, such as currency.** For that, you will need to use the `java.math.BigDecimal` class instead.

**double:** The double data type is a double-precision 64-bit IEEE 754 floating point. For decimal values, this data type is generally the default choice. **As mentioned above, this data type should never be used for precise values, such as currency.**

**boolean:** The boolean data type has only two possible values: true and false. Use this data type for simple flags that track true/false conditions.

**char:** The char data type is a single 16-bit Unicode character. It has a minimum value of `'\u0000'` (or 0) and a maximum value of `'\uffff'` (or 65,535 inclusive).

# Thanks!

## Any questions?

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