AFS
Agile Full Stack
Developer Bootcamp
Thoughtworks ©

Review

What is Tasking?

Easy to read and understand

Division of labor
& Independent testing

Input & Output

What is Tasking?

Simple Task

Easy to read and understand

Independent

Division of labor
& Independent testing

Verifiable

Input & Output

What is Context Map composed of ?

Box with name

_____ name

Arrow pointing to box - Input

_____ parameters

Arrow pointing away from the box - Output

_____ value

What is Context Map composed of ?

Box with name

Function name

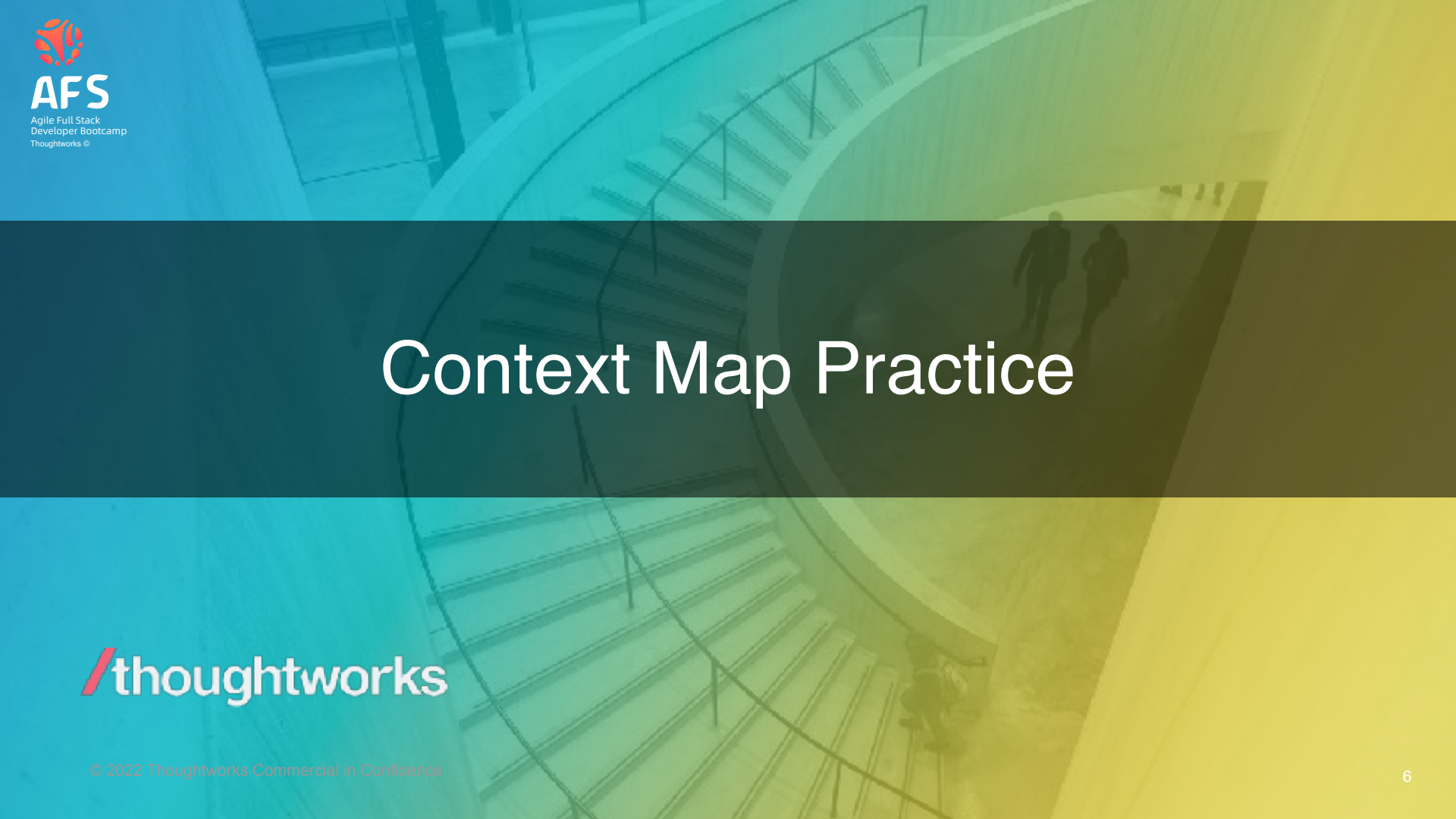
Arrow pointing to box - Input

Input parameters

Arrow pointing away from the box - Output

Output value

Context Map Practice



thoughtworks

Implement A Multiplication Table

Please read the following requirement:

I want to create a multiplication table. The input should be 2 integers specifying the start and the end of the table:

AC1: The start number must be smaller than or equal to the end number.

AC2: The start number and the end number can be any number in a range of 1 to 1000 (inclusive).

AC3: The output should be a string represents the multiplication table. Suppose that the start number is 2 and the end number is 4, the output should be something like the following.

```
2*2=4
2*3=6   3*3=9
2*4=8   3*4=12   4*4=16
```

Implement A Multiplication Table

Please read the following requirement:

I want to create a multiplication table. The input should be 2 integers specifying the start and the end of the table:

AC1: The start number must be smaller than or equal to the end number. Or else the function will return null.

AC2: The start number and the end number can be any number in a range of 1 to 1000 (inclusive). Or else the function will return null.

AC3: The output should be a string represents the multiplication table. Suppose that the start number is 2 and the end number is 4, the output should be something like the following.

```
2*2=4
2*3=6   3*3=9
2*4=8   3*4=12   4*4=16
```

Practice time

Everyone needs to share screen.

- Tasking and Draw the multiplication table context map individually (20 minutes)
- Showcase

Tasking

- 1. Validate the start number and end number
  - Is end number bigger than start number
  - Is start number in range 1 ~1000
  - Is end number in range 1 ~ 1000

  → Is number in range 1 ~ 1000

- 2. Generate multiplication table
  - Generate multiplication line
    - Generate multiplication expression

Multiplication Table Context Map

Multiplication Table Demo

Practice time

Everyone needs to share screen.

- Implementation based on the context map I shared with you (30 minutes)
- Showcase
- Tips:
  - Download the code from the TW school platform
  - Use git manage the project: git init
  - Add .gitignore file under the src folder
  - Start from the right side function box to the left
  - Run the corresponding test to ensure your implementation is right
  - Implementation until all the tests passed

Pos machine Practice

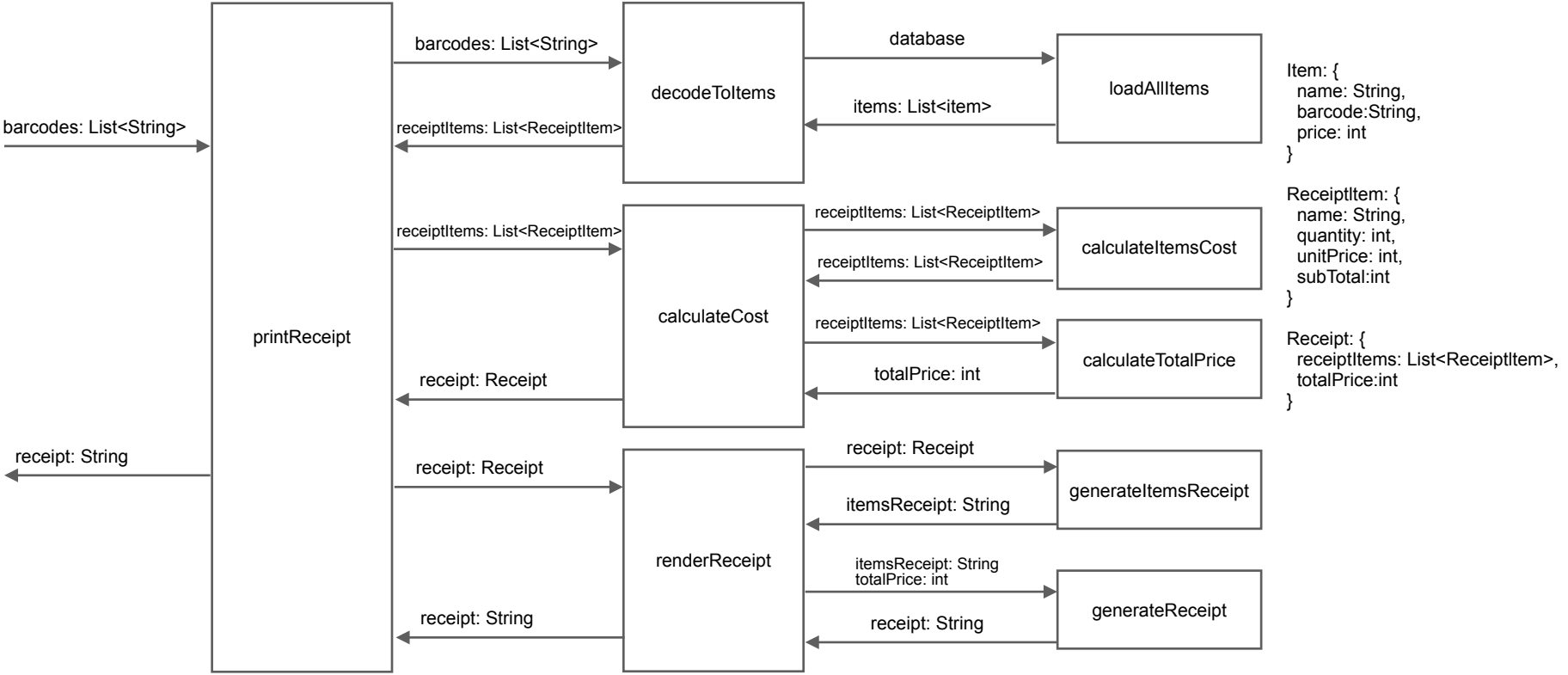
https://school.thoughtworks.cn/learn/program-center/student/index.html#/program/404/task

Practice time

- Tasking and Draw the pos machine context map (30 minutes)

- Showcase

Pos-Machine Context Map



Homework

Homework

1. Dairy using ORID
2. Pos machine （Fork the repository to your GitHub account, and use the repository to implement your work.）
   - Context map: draw context map, add the context-map.png (at least 6 function box) to your repository under the root directory.
   - Programming implementation: git commit after you implement a function box in context-map. (At least 6 commits)
   - Better to achieve:
     - No obvious duplicate code
     - Use Java stream instead of for loop
     - Use meaningful names for variables, methods, classes
     - Method with single responsibility
     - Context map and implementation code are consistent
   - **Submit your homework with your GitHub repository address**

Deadline 22:00