

# Testing Spring

Beginner to Guru

TDD 15 - Mixed Currencies



#### TDD To-Do List

• 
$$$5 + 10 CHF = $10 (with rate of 2:1)$$

$$•$5 + $5 = $10$$

Return Money from \$5 + \$5

Sum.plus

Expression.times

Reduce Money with Conversion

• Bank.reduce(Money)

-\$5\*2=\$10

Make "amount" private

Dollar side effects?

Money Rounding?

equals()

hashCode()

Equal Null Equal Object

• 5 CHF \* 2 = 10 CHF

Dollar/Franc Duplication

Common equals()

• Common times()

Compare Francs With Dollars

Currency

• Delete testFrancMultiplication?





### Tasks

- Implement Plus on Sum
- Add times to Expression
- Implement times on Sum





## SPRING FRAMEWORK





### TDD To-Do List

• 
$$$5 + 10 CHF = $10 (with rate of 2:1)$$

$$•$5 + $5 = $10$$

- Return Money from \$5 + \$5
- <del>Sum.plus</del>
- Expression.times
- Reduce Money with Conversion
- Bank.reduce(Money)
- \$5 \* 2 = \$10
- Make "amount" private

- Dollar side effects?
- Money Rounding?
- equals()
- hashCode()
- Equal Null Equal Object
- 5 CHF \* 2 = 10 CHF
- Dollar/Franc Duplication

- Common equals()
- Common times()
- Compare Francs With Dollars
- Currency
- Delete testFrancMultiplication?





#### Are We Done Yet?

- No there are additional refactoring which could be done to improve the code
- TDD In Review:
  - Write test
  - Get to working code quickly
  - Refactor to Clean Code





## SPRING FRAMEWORK

