

## TDD LAB 1

**Overview:** You will receive a file with the code. Use TDD practices to write tests and complete the code.

### Build Specs:

- Follow the instructions in the README file to set up the project.
- Write tests to ensure ChangeHandler is working correctly. Descriptions of the test cases you should write are provided below. You must follow the TDD technique: red, green, refactor!
- The ChangeHandler class allows users to insert coins into a vending machine and calculates the correct coins to give in change. Complete this class as you work through the tests.
- Note that all amounts are counted in cents, not dollars.

### Required Test Cases

1. **constructor:**
  - a. amountDue is set based on an argument.
  - b. cashTendered is set to zero.
2. **insertCoin:**
  - a. Inserting a quarter adds 25.
  - b. Inserting a dime adds 10.
  - c. Inserting a nickel adds 5.
  - d. Inserting a penny adds 1.
  - e. Calling function multiple times continues to add on to the amount.
3. **isPaymentSufficient:**
  - a. Returns true if cashTendered more than amountDue.
  - b. Returns false if cashTendered less than amountDue.
  - c. Returns true if cashTendered equal to amountDue.
4. **giveChange:**
  - a. 32 change produces: quarters: 1, dimes: 0, nickels: 1, pennies: 2.
  - b. 10 change produces: quarters: 0, dimes: 1, nickels: 0, pennies: 0.
  - c. 27 change produces: quarters: 1, dimes: 0, nickels: 0, pennies: 2.
  - d. 68 change produces: quarters: 2, dimes: 1, nickels: 1, pennies: 3.

### Extended Challenges:

Try this String Calculator Kata (<http://codingdojo.org/kata/StringCalculator/>) or this Yahtzee Kata (<http://codingdojo.org/kata/Yahtzee/>)

