CS 1400-03 Introduction to Programming and Problem Solving
Coding Practice #2
(Due: 11:59 PM, Friday, 2/12/2021)

Except Coding Practice #1, I will not grade your coding practice submissions. Instead, they will be treated as participation points. On blackboard, you will receive full points as long as you work on the exercises, which don't necessary mean they are all correct. Please check your own programs carefully and make sure they do generate the desired output.

Objectives:

- Be able to create complete Java programs with
  - Variables
  - Primitive data types
  - `String`s, string methods
  - Arithmetic operators
  - Keyboard input and output
- Be able to compile and execute a Java program
- Be able to test and debug a program

Change your working directory to `cs1400/codingPractice` for this assignment.

Task #1 Keyboard Input

Write a program, called `KeyboardInput.java`, that will ask the user to enter the following information in the given order:

- Name (`String`)
- Age (`int`)
- Company Name (`String`)
- Annual Salary (`double`)

Your Program should display the following message, where the user's input is shown in bold.

```
My name is Tyler Wood, my age is 20 and
I hope to work for Google and earn $100000.0 per year.
```

Task #2 Name and Initials

Write a program, called `NameAndInitials.java`, that will be specific to your name. If your name was John Fitzgerald Kennedy, your program would contain the code

```
String first = "John";
String middle = "Fitzgerald";
String last = "Kennedy";
```

The output should be as follows:

```
Name = John Fitzgerald Kennedy
Initials = JFK
```

```
Short name = John F Kennedy
Shorter name = J F Kennedy
UpperCase name = JOHN FITZGERALD KENNEDY
```

Invent a middle name if you don't have one.

Task #3 Vending Machine

Write a program, called `VendingMachine.java`, that determines the change to be dispensed from a vending machine. An item in the machine can cost between 25 cents and a dollar, in 5-cent increments (25, 30, 35, … 90, 95, 100), and the machine accepts only a single dollar bill to pay for the item. For example, a possible sample dialog might be

```
Enter price of item
(from 25 cents to a dollar, in 5-cent increments): 45

You bought an item for 45 cents and gave me a dollar,
so your change is
2 quarters,
0 dimes, and
1 nickels.
```

Test your program with different price values.

Submission:

Generate a `script` file `practice2.txt` with appropriate time stamps and the following steps visible:

1) a `pwd` to show the current working directory
2) a `ls -l` to show in long format the files in your `cs1400/codingPractice` directory
3) a `cat` to display `KeyboardInput.java`
4) compile `KeyboardInput.java`
5) run `KeyboardInput`
6) a `cat` to display `NameAndInitials.java`
7) compile `NameAndInitials.java`
8) run `NameAndInitials`
9) a `cat` to display `VendingMachine.java`
10) compile `VendingMachine.java`
11) run `VendingMachine` five times with the price of item = 25, 35, 45, 80, 100

Submit the script file `practice2.txt` to the instructor on Bb, under the Coding Practice Folder, Practice #2 assignment.