Homework 02

COMSC-122

Fall 2017

Below is the Program Description

Stock Transaction Program

Last month Joe purchased some stock in Acme Software, Inc. Here are the details of the purchase:

- The number of shares that Joe purchased was 2,000.
- When Joe purchased the stock, he paid $40.00 per share.
- Joe paid his stockbroker a commission that amounted to 3 percent of the amount he paid for the stock.

Two weeks later Joe sold the stock. Here are the details of the sale:

- The number of shares that Joe sold was 2,000.
- He sold the stock for $42.75 per share.
- He paid his stockbroker another commission that amounted to 3 percent of the amount he received for the stock.
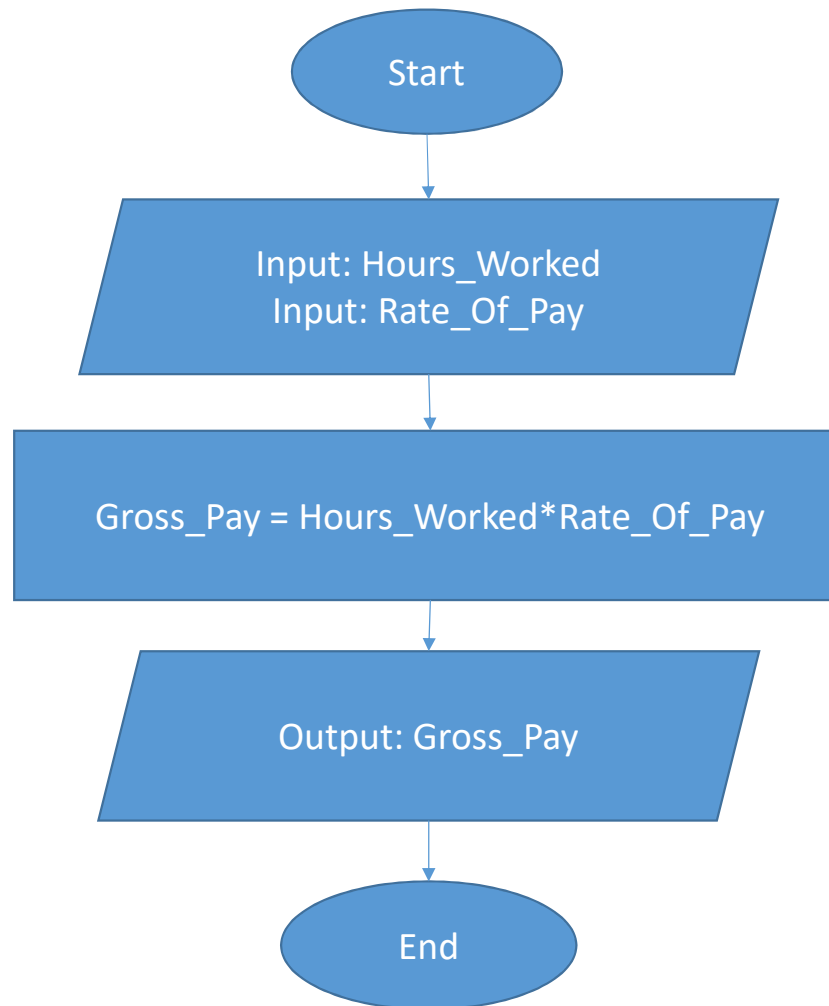
Write a program that displays the following information:

- The amount of money Joe paid for the stock.
- The amount of commission Joe paid his broker when he bought the stock.
- The amount that Joe sold the stock for.
- The amount of commission Joe paid his broker when he sold the stock.
- Display the amount of money that Joe had left when he sold the stock and paid his broker (both times). If this amount is positive, then Joe made a profit. If the amount is negative, then Joe lost money.

Homework 2A : Flowchart

- Start by generating the Algorithm for solving this problem. This algorithm will be displayed as a flowchart.

- Use a Flowchart to indicate how you are going to generate the desired result. On the next page you'll see a Flowchart of the example in Chapter 1.

- Note that there are 6 inputs required for this program as well as 5 outputs.

- Create the Flowchart for this problem using Powerpoint.
  - Instructions for how to do this can be found in a video that I have saved in YouTube:
    - the link is: https://youtu.be/r5bxbxuExhk.
    - Although I did not indicate it in the video, Add your name to the top of Flow Chart
      - See the next page as an example of what the final image should look like for the Gross Pay program.
  - Do a "Save As" of the final image produced as a .pdf File.

- Entitle this image as: **Hwrk2A-*YourName*.pdf**
  - Be sure to substitute your own name for the italicized *YourName* above.

- Save the final result in your dropbox for Homework 2.

Flow Chart Example – How to make a Flow Chart Using PowerPoint is shown in the link: https://youtu.be/r5bxbxuExhk

Homework 2B : Program Requirements

- When writing your program, see that you write your name as one of the comments at the top of the script

- Add at least one additional comment indicating what this program is about.

- The Shares bought and the Shares sold should be Integers.
  - Note that these values should be input from the keyboard, not hard coded in program.

- All other quantities, input, should be floating point variables.
  - Note that these values should be input from the keyboard, not hard coded in program.

- With the outputs displayed, they should all be floating point numbers displayed to two decimal places only, and should all have a $ preceding the resulting number with no space between the $ and the number.

- The program should be executable from Windows Explorer, with the results remaining on the screen until the Enter key is struck on the keyboard.

- See the next page for a what a sample output should look like.
  - Be sure to use your name, not the instructor's name on the program output.

- Save the result in your dropbox with the name: **Hwrk02B-*YourName*.py**

Example of Homework2B Output

C:\WINDOWS\py.exe

```
Enter number of shares purchased: 2000
Enter the price per share [in dollars]: 40
Enter the commission percentage paid broker [in %]: 3
Enter the number of shares sold: 2000
Enter the sales price per share [in dollars]: 42.75
Enter the sales commission percentage paid broker [in %]: 3

Mac Littlefield's Stock Transaction App
Joe paid: $80,000.00
Purchase Commission: $2,400.00
Joe sold at: $85,500.00
Sales Commission: $2,565.00
Joe's profit: $535.00
Hit any key to Exit:
```