ITP 449, FALL 2020

HOMEWORK 2
30 POINTS

For each one of the following questions, write Python code in PyCharm. For each question, create a new Python file. Name it *HW2_Q1_lastname_firstname.py* Create a header in each file using *comments* to display your name and HW information. After that write your Python code.

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 # ITP 449 Fall 2020
 # HW2
 # Question 1

1. Write a program to compute and print all possible combinations of change for $1.
   Denominations to be considered – quarter, dime, nickel, penny
   Hint: Use nested loops (loops within loops for the various denominations of coins)
   Change for $1
   0 quarters, 0 dimes, 0 nickels, 100 pennies
   …
   4 quarters, 0 dimes, 0 nickels, 0 pennies

2. Ask the user to enter two positive integers between 1 and 100. Read those integers. Then output a multiplication table of the first number times the second number.
   Please enter an integer: 5
   Please enter another integer: 20
   5 x 1 = 5
   5 x 2 = 10
   5 x 3 = 15
   …
   5 x 20 = 100

3. Write a program to ask the user to enter a password. Then check to see if it is a valid password based on these requirements
   a. Must be at least 8 characters long
   b. Must contain both uppercase and lowercase letters
   c. Must contain at least one number between 0-9
   d. Must contain a special character -!,@,#,$

   If the password is not valid, ask the user to re-enter. This should continue until the user enters a valid password. After a valid password is entered, print Access Granted.

   Please enter a password. Follow these requirements

a. *Must be at least 8 characters long*
b. *Must contain both uppercase and lowercase letters*
c. *Must contain at least one number between 0-9*
d. *Must contain a special character -!,@,#,$*
   Password: HelloWorld1
   Invalid password. Try again!
   Password: Hello@World1
   Access Granted!

Zip all files together (name the zip file *lastname_firstname_hw2.zip*) and submit it on Blackboard.