Assignment #10

1. Create a python program that will create a text file called **NameInfo.txt** that contains the names, addresses, and phone numbers of ten (10) people. For each person the name, address, and phone number should be written to separate lines in the text file.

```
File Creator
------------


Enter the information for person # 1
------------------------------------

Enter the person's name: Johnny Horton
Enter the person's address: 234 Cold Road, Yellowknife, NWT
Enter the person's phone number: (613) 450-9802

Enter the information for person # 2
------------------------------------
.
.
.
```

When complete the text file **NameInfo.txt** should look similar to the following :

```
Johnny Horton
234 Cold Road, Yellowknife, NWT
(613) 450-9802
Jimmy Smith
123 Any Street
(708) 245-6574
James Dean
56 King Road, Indiana, Indiana
(518) 675-3456
Mary Who
24 Queen Street, London, Ont.
(213) 654-9805
Samantha Green
345 Yourg Place, Toronto, Ont.
(705) 876-0325
Julie Beaute
345 Cannidale Place, London, Ont.
(905) 543-9876
Joanie Harrigan
77 Rock garden Road, Ingersoll, Ont.
(416) 678-4567
Billy Smith
123 Red Circle, Boston, Mass.
(780) 456-3456
James Gunner
67 HillBilly Road, Green, Delaware
(786) 980-6754
Helen Arm
67 Birr Road, Lucan, Ont.
(519) 227-0987
```

2. Create a Python program that opens and reads the file **NameInfo.txt,** that was created in Assign 10-1 and prints the information for each person in a neat chart on the screen.

   Your output should look as follows:

```
NameInfo.txt Contents
---------------------

      Name                      Address                              Phone Number
      ----                      -------                              ------------

  Johnny Horton          234 Cold Road, Yellowknife, NWT            (613) 450-9802
    Jimmy Smith                        123 Any Street               (708) 245-6574
     James Dean           56 King Road, Indiana, Indiana            (518) 675-3456
       Mary Who            24 Queen Street, London, Ont.            (213) 654-9805
 Samantha Green            345 Yourg Place, Toronto, Ont.           (705) 876-0325
   Julie Beaute        345 Cannidale Place, London, Ont.            (905) 543-9876
Joanie Harrigan     77 Rock garden Road, Ingersoll, Ont.            (416) 678-4567
    Billy Smith            123 Red Circle, Boston, Mass.            (780) 456-3456
   James Gunner       67 HillBilly Road, Green, Delaware           (786) 980-6754
      Helen Arm                67 Birr Road, Lucan, Ont.            (519) 227-0987
```

3. Create a file called "**Marks.txt**". The program will generate 500 Student marks (between 30 and 100) and write them to the file.

4. Create a program that will Open and read the file "**Marks.txt**". As it reads each individual mark the program will also do the following :
    - Store the marks in 1 of 2 files "**Pasess.txt**" or "**Failures.txt**"
    - Count and print how many marks were stored in each file
    - Calculate and print the average of marks were stored in each file

5. Create a file which contains the Social Insurance Number (SIN) and the yearly income of several 20 Canadian individuals. Call the file "**SIN.txt"**

6. Create a program that reads "**SIN.txt"** and for each individual, determine the income tax bracket that they belong in and then calculate the amount of their income tax. Keep track of the total amount of income, the total amount of income tax, the number of individuals in each bracket.

Canadian Tax Brackets 2014 – Canada Federal Personal Income Tax Brackets Below

Tax Bracket	Description
A	15% on the first $43,561 of taxable income
B	22% on the next $43,562 of taxable income (on the portion of taxable income between $43,562 and $87,123)
C	26%on the next $47,930 of taxable income (on the portion of taxable income between $87,124 and $135,054)
D	29% of taxable income over $135,054

Your program's output should look as follows:

```
Income Tax 2014
---------------

 Social Insurance Number        Income  Tax Bracket    Income Tax
 -----------------------        ------  -----------    ----------
       478-234-987               41234       A              6185
       432-211-157               45899       B              7049
       444-522-631              243900       D             60145
       401-998-900               35845       A              5377

The total income is:          $     366878
The total income tax is:      $      78756

Number of Individuals in Bracket A:   2
Number of Individuals in Bracket B:   1
Number of Individuals in Bracket C:   0
Number of Individuals in Bracket D:   1
```

7. Create a program that will allow the user to enter the teams that are playing in the weekly NFL games.

Save as: NFLWeeklyGames.py

Your output should look as follows:

```
Weekly NFL Games
----------------

This program creates a file that will store the names of the teams
playing each other on any given weekend.

Enter the name of the file where the information will be stored: NFLWeek13.txt

How many games are being played this week? 15

Game 1 Visiting Team: Colts
Game 1 Home Team: Texans
Game 2 Visiting Team: Patriots
Game 2 Home Team: Bills
:
:
:
Game 15 Visiting Team: Eagles
Game 15 Home Team: 49ers

Thank-you for using this program.
```

The text file **NFLWeek13.txt** would contain the following information:

Colts	Jaguars
Texans	Titans
Patriots	Chargers
Bills	Raiders
Ravens	Bears
Buccaneers	Falcons
Steelers	Cowboys
Browns	Seahawks
Panthers	Redskins
Bengals	Cardinals
Broncos	Giants
Jets	Eagles
Lions	49ers
Vikings	
Packers	
Dolphins	

8. Create a program that uses the information in the weekly NFL games text file created in #7 above, to create another text file that keeps the scores of the games.

Save as: NFLWeeklyGamesScores.py

Your output should look as follows:

```
Weekly NFL Games
----------------

This program creates a file that will store the scores of the
NFL games played on a weekend.

Enter the name of the file with the team names: NFLWeek6.txt
Enter the name of the file that will store the scores: NFLWeek6Scores.txt

Score for Game 1:
Colts: 24
Texans: 21
Score for Game 2:
Patriots: 14
Bills: 17
:
:
:
Score Game 15:
Eagles: 27
49ers: 13

Thank-you for using this program.
```

The text file **NFLWeek13Scores.txt** would contain the following information:

```
Colts
24
Texans
21
Patriots
14
Bills
17
:
:
Eagles
27
49ers
13
```