Assignment 6: File I/O

Winter Code Camp

DUE: January 9, 2021, 11:59PM

At the beginning of each python program, please include comments indicating your name and your student number

Example:

```
# Animesh Sarker
# 105184718
```

Please submit this assignment as a **single zip file** called `FIRSTNAME_LASTNAME_assignment6.zip`.

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1. **Write a Python program that reads all the words inside of "dictionary.txt" and then finds all the words that are in "story.txt" that are not in "dictionary.txt" [20 marks]**

   Save as fileAssign1.py

2. **In the file "people.txt" you'll find a list of people, with their hobbies listed afterwards like this:**
   `first last,hobby 1,hobby 2,hobby 3`
   Read through all these people, then make a text file for each hobby, and write all the people in the file that have that hobby. [30 marks]

   For example, say "people.txt" contained the following:

   ```
   John Smith,writing,drawing,painting
   Georgia Carson,drawing,swimming,writing
   Felicia Dawn,painting,swimming,writing
   ```

   Then the following files will be created with the the contents:

writing.txt	*drawing.txt*	*painting.txt*	*swimming.txt*
John Smith	John Smith	John Smith	Georgia Carson
Georgia Carson	Georgia Carson	Felicia Dawn	Felicia Dawn
Felicia Dawn			

   Save as fileAssign2.py

3. The NBA has hired you to investigate match fixing. In "ranks.txt" you'll find the ranks of 30 NBA teams sorted in acsending order (line 1 is rank 1, line 30 is rank 30). In "matches.txt" you'll find a list of all NBA matches that took place this season. Find out which matches have been fixed. [50 marks]

A fixed game is defined as and must satisfy ALL of the following:
- The lower ranked team (i.e. the underdog) scored higher points than the higher ranked team (i.e. the favourite) in an individual game
- The difference in rank between the underdog and the favourite is greater than 10
- The ratio between the bets placed on the underdog and the total number of bets is greater than 0.8

The format for the "matches.txt" file is:
`TEAM1,SCORE,BETS_PLACED,TEAM2,SCORE,BETS_PLACED`

For example, assuming the same "ranking.txt" as the one supplied:

Sample "matches.txt":
```
Los Angeles Lakers,69,101,Golden State Warriors,120,420
Phoenix Suns,82,278,Boston Celtics,87,421
Chicago Bulls,123,700,Indiana Pacers,90,134
Toronto Raptors,103,166,Brooklyn Nets,107,202
Miami Heat,155,265,San Antonio Spurs,161,869
```

Sample output:
```
FIXED MATCHES:
Underdog               Rank Score Bets vs Favourite          Rank Score Bets
Golden State Warriors  30   120   420  vs Los Angeles Lakers  1    69    101
San Antonio Spurs      21   161   869  vs Miami Heat          5    155   265
```

Save as fileAssign3.py