A 4

Due Sep 27 by 4pm **Points** 28 **Submitting** a text entry box or a file upload **File Types** ipynb and pdf
Available Sep 20 at 12am - Sep 27 at 11:59pm 8 days

This assignment was locked Sep 27 at 11:59pm.

The Word List

Many of the problems this semester will revolve around a list of English words, **words.txt** (https://canvas.harvard.edu/courses/95534/files/12801942/download?download_frd=1) that Downey provides. In this assignment, we will use the file twice: once to look for five letter words that start with a and end with t, and once to look for palindromes, words like radar and madam, that are the same back to front and front to back.

Download the **Notebook** (https://canvas.harvard.edu/courses/95534/files/13105739/download?download_frd=1) file or **PDF** (https://canvas.harvard.edu/courses/95534/files/13105740/download?download_frd=1)

Download the word list **words.txt** (https://canvas.harvard.edu/courses/95534/files/12801942/download?download_frd=1)

Hint: Python supports tests for inclusion on many data types, using the operator 'in'. See, for example, Downey, page 91, or the example below:

```
if 'i' in 'team':
   print("What!  There's no I in Team!")
```

Overall Grading Rubric:

1. Solves problems descriptions
2. Brief Comments appear in appropriate places and meaningful variable names are used.
3. Logic concise, uses Python syntax and Python abilities appropriately

4. Discretionary deductions
5. Delivery: appropriate files are in the right place

Rubric for Assignment 4

Criteria	Ratings		Pts
P1 is_vowel() Does the function recognize upper and lower case vowels? Does it recognize the vowels a, e, i, o, and u?	**5 pts** **Full Marks**	**0 pts** **No Marks**	5 pts
P2 has_all_vowels() Does the function correctly detect strings that contain all 5 vowels?	**5 pts** **Full Marks**	**0 pts** **No Marks**	5 pts
P3 is_all_vowels() Does the function correctly detect strings that only contains vowels?	**5 pts** **Full Marks**	**0 pts** **No Marks**	5 pts
P4 Palindrome Does the function recognize palindromes?	**5 pts** **Full Marks**	**0 pts** **No Marks**	5 pts
P5 Crossword Puzzle Does the function correctly detect matching strings? Does the program find all the matching words? Does the program assure that the connection to words.txt is closed after reading?	**5 pts** **Full Marks**	**0 pts** **No Marks**	5 pts
P6 & P7 Palindrome Problem Does the program find all the matching words? Does the program assure that the connection to words.txt is closed after reading?	**3 pts** **Full Marks**	**0 pts** **No Marks**	3 pts
			Total Points: 28