

# Python Project Report

1. Introduction: I chose task number one. In task number one I need to read the top 1000 words from the English Language and save them in an Excel file. Then I need to get a random word from the Excel file and have the user guess the word. The word will be displayed as dashes and each attempt the user will guess the character and if the user was guessing the character correctly then the character will be revealed in place of the dash. User loses if they make 5 mistakes and wins if there weren't 5 mistakes and the user can guess all of the characters that are contained in the word.

## 2. Table of functions:

Function Prototype	Description of its purpose
<pre>def read(w: list): -&gt; list</pre>	This function takes an empty list and fills it in with the top 1000 words from the website. Then it returns the list with the top 1000 words in it.
<pre>def save(word: list): -&gt; str</pre>	This function saves the words from the list of words in the excel file. It takes the list that is filled with the top 1000 words and it saves them in an Excel file. Then it returns the Excel file.
<pre>def get_word(wb1: str): -&gt; str</pre>	This function reads from the excel file and is getting a random word from the excel file. It receives the Excel file and chooses a random word from it and returns that random word.
<pre>def update(dashes: str, char: str, words: str): -&gt; str</pre>	This function updates the dashes if the user guesses a character correctly, it is replacing the dash in place of the character that was guessed correctly. It receives the current dashes of the word, the character that was guessed correctly and the word itself.

```
def check_win_lose(dashes:
str,rand_word1: str): -> None
```

This function contains a while loop that checks the status and calls the update function to update the dashes if the user selected a character that is contained in the word. It is also checking to see if the user made 5 mistakes and it checks if the user won. It receives the dashes for that word and the word that was chosen. In the while loop I constantly check if user won or lost and update the dashes if the user guessed the character correctly.

### 3. Snapshots of the program execution

Winning:

```
File Edit Selection View Go Run Terminal Help
projpython.py - PythonPractice - Visual Studio Code

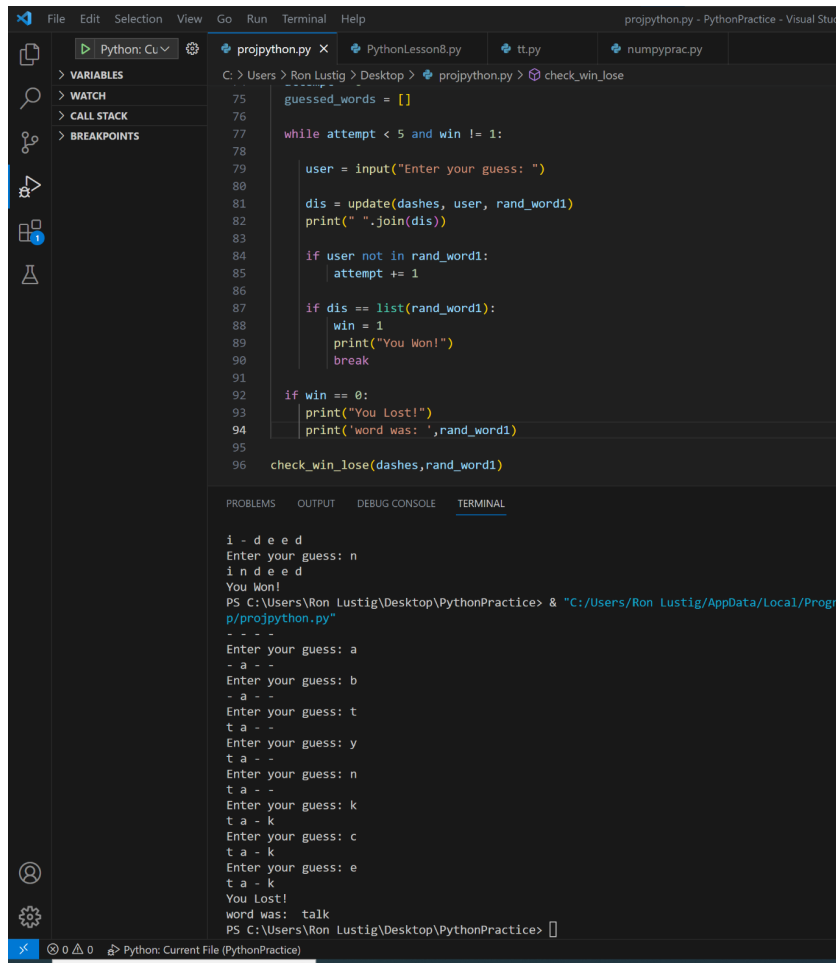
Python: C:\Python38\Python.exe
projpython.py x PythonLesson8.py tt.py

> VARIABLES
> WATCH
> CALL STACK
> BREAKPOINTS

C:\Users\Ron Lustig\Desktop> projpython.py > check_win_lose
1 import requests
2 import openpyxl
3 import random
4 from bs4 import BeautifulSoup
5
6 w = []
7 #This method reads the top 1000 words in English and places them in a list
8 def read(w):
9     url = "https://www.ef.edu/english-resources/english-vocabulary/top-1000-words/"
10    response = requests.get(url)
11
12    soup = BeautifulSoup(response.content, 'html.parser')
13
14    s = soup.find('div', class_='content')
15
16    lines = s.find_all('p')
17
18    for line in lines:
19        if 'a' in line:
20            w.extend(line.text.split())
21    return w
22
23 word=read(w)

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Enter your guess: r
- 1 - -
You lost! high
PS C:\Users\Ron Lustig\Desktop\PythonPractice> & "C:\Users\Ron Lustig\AppData\Local\Programs\Python\Python38\python.exe" p\projpython.py
- - - - -
Enter your guess: a
- a - -
Enter your guess: e
- - e a - -
Enter your guess: l
- 1 e a - 1 -
Enter your guess: p
- 1 e a - 1 -
Enter your guess: h
- 1 e a - 1 -
Enter your guess: g
- 1 e a - 1 -
Enter your guess: c
c 1 e a - 1 -
Enter your guess: r
c 1 e a r l -
Enter your guess: y
c 1 e a r l y
You Won!
PS C:\Users\Ron Lustig\Desktop\PythonPractice>
```

Losing:



The screenshot shows the Visual Studio Code interface with a Python file named `projpython.py` open. The code is a Hangman-style game. The terminal shows the execution of the script, where the user guesses letters and eventually loses because the word was "talk".

```
File Edit Selection View Go Run Terminal Help
projpython.py - PythonPractice - Visual Studio Code

Python: C:\Python38\python.exe
projpython.py X PythonLesson8.py tt.py numpyprac.py

> VARIABLES
> WATCH
> CALL STACK
> BREAKPOINTS

C:\Users\Ron Lustig\Desktop> projpython.py > check_win_lose
75     guessed_words = []
76
77     while attempt < 5 and win != 1:
78
79         user = input("Enter your guess: ")
80
81         dis = update(dashes, user, rand_word1)
82         print(" ".join(dis))
83
84         if user not in rand_word1:
85             attempt += 1
86
87         if dis == list(rand_word1):
88             win = 1
89             print("You Won!")
90             break
91
92     if win == 0:
93         print("You Lost!")
94         print('word was: ',rand_word1)
95
96     check_win_lose(dashes,rand_word1)

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

i - d e e d
Enter your guess: n
i n d e e d
You Won!
PS C:\Users\Ron Lustig\Desktop\PythonPractice> & "C:/Users/Ron Lustig/AppData/Local/Programs/Python/Python38/python.exe" projpython.py
- - - -
Enter your guess: a
- a - -
Enter your guess: b
- a - -
Enter your guess: t
t a - -
Enter your guess: y
t a - -
Enter your guess: n
t a - -
Enter your guess: k
t a - k
Enter your guess: c
t a - k
Enter your guess: e
t a - k
You Lost!
word was: talk
PS C:\Users\Ron Lustig\Desktop\PythonPractice>
```

4. Ron Lustig: I did everything and I worked by myself