

Python Final Project By Mahima

Opening the file and read and write format

In [1]:

```
# Opening the convo file which has script from Games of Thrones and r+ is used to read and write
conv_file = open('C:/Users/aitha/OneDrive/Desktop/Python_File_handling_Project_By_Mahima/
```

In [2]:

```
# Reading the files by each lines by using the code of readlines()
read_line = conv_file.readlines()
# use the variable name read_line to check the whether the desired output we received.
read_line
```

```
'\\n',
'\\n',
'WILL: Whatever did it to them could do it to us. They even killed the
children.\\n',
'\\n',
'ROYCE: It's a good thing we're not children. You want to run away sout
h, run away. Of course, they will behead you as a deserter ... If I don't
catch you first. Get back on your horse. I won't say it again.\\n',
'\\n',
'ROYCE: Your dead men seem to have moved camp.\\n',
'\\n',
'WILL: They were here.\\n',
'\\n',
'GARED: See where they went.\\n',
'\\n',
'ROYCE: What is it?\\n',
'\\n',
'JON: Go on. Father's watching.\\n',
'\\n',
'JON: And your mother.\\n',
'',
```

In [8]:

```
# we create the empty list called conversation_list using below code so that we can store it
conversation_list = []
# For loop is used to put readlines in empty list we created above
for line in read_line:
    if (line=="\n"):
        continue
    conversation_list.append(line[:-2])
# The continue statement in above loop will skip "\n" from each element of conversation_list
conversation_list
```

```
'CATELYN: I am so sorry, my love',
'NED: Tell me',
'ROBB: I hear the prince is a right royal prick',
'THEON: Think of all those southern girls he gets to stab with his right royal prick',
'ROBB: Go on, Tommy, shave him good. He's never met a girl he likes better than his own hair',
'CATELYN: Gods, but they grow fast',
'BRAN: I saw the king! He's got hundreds of people',
'CATELYN: How many times have I told you No climbing',
'BRAN: But he's coming right now! Down our road',
'CATELYN: I want you to promise me. No more climbing',
'NED: Your Grace',
'ROBERT: You've got fat',
'ROBERT: Cat',
'CATELYN: Your Grace',
'ROBERT: Nine years. Why haven't I seen you? Where the hell have you been',
'NED: Guarding the North for you, Your Grace. Winterfell is yours',
'ARYA: Where's the Imn'.
```

In [9]:

```
# we use len function to check how much lines are in conversation_list
len(conversation_list)
```

Out[9]:

111

Task 1: Finding out the number of unique dialogue speakers in the convo File

In [17]:

```
# We use new variable called unique_char where we define empty set. As we known the set a
unique_char = set()
# we use for loop where each element we name i in conversation_list undergoes loop
#then we name new variable a which use "i" and slit the line at ":" position and adds in
# we use[0] index to start from that index.

for i in conversation_list:
    a = i.split(":")[0]
    unique_char.add(a)
```

In [18]:

```
# To check how many unique characters are there in convo_file as set is used no duplicate
len(unique_char)
```

Out[18]:

17

In [19]:

```
# By calling the variable name we get all 17 unique_characaters
unique_char
```

Out[19]:

```
{'ARYA',
 'BRAN',
 'CASSEL',
 'CATELYN',
 'CERSEI',
 'GARED',
 'JAIME',
 'JON',
 'NED',
 'ROBB',
 'ROBERT',
 'ROYCE',
 'SANSA',
 'SEPTA MORDANE',
 'THEON',
 'WAYMAR ROYCE',
 'WILL'}
```

So we conclude that there are 17 unique dialogue speakers in the convo File and there name are as above.

Task 2: store the unique words spoken by that character in the a new text file by the name of the dialogue speaker.

In [22]:

```
# To convert above List in to lower case using lower() function.
```

```
conversation_list_2 = []
```

```
for sentence in conversation_list:
```

```
    j = sentence.lower()
```

```
    conversation_list_2.append(j)
```

```
conversation_list_2
```

```
'jon: don't think too much, bran',  
'robb: relax your bow arm',  
'cassel: lord stark. my lady. a guardsman just rode in from the hills.  
they've captured a deserter from the night's watch',  
'ned: get the lads to saddle their horses',  
'catelyn: do you have to',  
'ned: he swore an oath, cat',  
'cassel: the law is law, my lady',  
'ned: tell bran he's coming, too',  
'catelyn: ned. ten is too young to see such things',  
'ned: he won't be a boy forever. and winter is coming',  
'robb: lad, go run back and get the rest',  
'ned: king of the andals and the first men ',  
'jon: father will know if you do',  
'ned: lord of the seven kingdoms and protector of the realm, i, eddard  
of the house stark, lord of winterfell and warden of the north, sentence  
you to die',  
'jon: you did well',  
'ned: you understand why i did it',  
'bran: jon said he was a deserter',
```

In [27]:

```

# Replacing special characters with a space
for a, b in enumerate(conversation_list_2):
    if isinstance(b, str):
        conversation_list_2[a] = b.replace('.', ' ')
        conversation_list_2[a] = b.replace(',', ' ')
        conversation_list_2[a] = b.replace('?', ' ')
        conversation_list_2[a] = b.replace('...', ' ')
        conversation_list_2[a] = b.replace('!', ' ')
        conversation_list_2[a] = b.replace("i've", "i have")
        conversation_list_2[a] = b.replace("they've", "they have")
        conversation_list_2[a] = b.replace("haven't", "have not")
        conversation_list_2[a] = b.replace("we've", "we have")
        conversation_list_2[a] = b.replace("that's", "that is")

conversation_list_2
'septa mordane. fine work, as always. well done ',
'sansa: thank you',
'septa mordane: i love the detail that you've managed to get in this co
rners',
'ned: and which one of you was a marksman at ten? keep practicing, bra
n. go on',
'jon: don't think too much, bran',
'robb: relax your bow arm',
'cassel: lord stark. my lady. a guardsman just rode in from the hills.
they've captured a deserter from the night's watch',
'ned: get the lads to saddle their horses',
'catelyn: do you have to',
'ned: he swore an oath, cat',
'cassel: the law is law, my lady',
'ned: tell bran he's coming, too',
'catelyn: ned. ten is too young to see such things',
'ned: he won't be a boy forever. and winter is coming',
'robb: lad, go run back and get the rest',
'ned: king of the andals and the first men ',
'jon: father will know if you do',

```

```
# Creating an empty List and then appending using for Loop by splitting the lines at ":"
conversation_list_3 = []
for i in conversation_list:
    a = i.split(':')
    conversation_list_3.append(a)
```

```
[ 'ROYCE',  
  ' It's a good thing we're not children. You want to run away south, run  
n away. Of course, they will behead you as a deserter ... If I don't catch  
you first. Get back on your horse. I won't say it again'],  
[ 'ROYCE', ' Your dead men seem to have moved camp'],  
[ 'WILL', ' They were here'],  
[ 'GARED', ' See where they went'],  
[ 'ROYCE', ' What is it'],  
[ 'JON', ' Go on. Father's watching'],  
[ 'JON', ' And your mother'],  
[ 'SEPTA MORDANE', ' Fine work, as always. Well done'],  
[ 'SANSA', ' Thank you'],  
[ 'SEPTA MORDANE',  
  ' I love the detail that you've managed to get in this corners'],  
[ 'NED',  
  ' And which one of you was a marksman at ten? Keep practicing, Bran. Go  
o on'],  
[ 'JON', ' Don't think too much, Bran'],  
[ 'ROBB', ' Relax your bow arm'],  
[ 'SANSA',
```

In [31]:

```
print(conversation_list_3)
```

```
[['will', ' i've never seen wildlings do a thing like this. i've never seen a thing like this, not ever in my life'], ['will', ' close as any man would'], ['royce', ' do the dead frighten you'], ['royce', ' you don't think he'll ask us how they died? get back on your horse'], ['royce', ' it's a good thing we're not children. you want to run away south, run away. of course, they will behead you as a deserter ... if i don't catch you first. get back on your horse. i won't say it again'], ['will', ' they were here'], ['royce', ' what is it'], ['jon', ' and your mother'], ['sansa', ' thank you'], ['ned', ' and which one of you was a marksman at ten? keep practicing, bran. go on'], ['robb', ' relax your bow arm'], ['ned', ' get the lads to saddle their horses'], ['ned', ' he swore an oath, cat'], ['ned', ' tell bran he's coming, too'], ['ned', ' he won't be a boy forever. and winter is coming'], ['ned', ' king of the andals and the first men '], ['ned', ' lord of the seven kingdoms and protector of the realm, i, eddard of the house stark, lord of winterfell and warden of the north, sentence you to die'], ['ned', ' you understand why i did it'], ['ned', ' but do you understand why i had to kill him'], ['ned', ' the man who passes the sentence should swing the sword'], ['ned', ' the white walkers have been gone for thousands of years'], ['ned', ' a madman sees what he sees'], ['theon', ' mountain lion'], ['theon', ' it's a freak'], ['ned', ' tough old beast'], ['jon', ' now there are five'], ['bran', ' where will they go? their mother's dead'], ['ned', ' better a quick death. they won't last without their mother'], ['bran', ' no'], ['theon', ' i take orders from your father, not you'], ['ned', ' i'm sorry, bran'], ['ned', ' you will train them yourselves. you will feed them yourselves. and if they die, you will bury them yourselves'], ['jon', ' i'm not a stark. get on'], ['cersei', ' what if jon arryn told someone'], ['cersei', ' my husband'], ['cersei', ' you should be the hand of the king'], ['catelyn', ' all these years and i still feel like an outsider when i come here'], ['catelyn', ' i wonder if the old gods agree'], ['catelyn', ' i am so sorry, my love'], ['robb', ' i hear the prince is a right royal prick'], ['robb', ' go on, tommy, shave him good. he's never met a girl he likes better than his own hair'], ['bran', ' i saw the king he's got hundreds of people'], ['bran', ' but he's coming right now down our road'], ['ned', ' your grace'], ['robert', ' cat'], ['robert', ' nine years. why haven't i seen you? where the hell have you been'], ['arya', ' where's the imp'], ['robert', ' who have we here? you must be robb'], ['robert', ' ooh. show us your muscles. you'll be a soldier'], ['sansa', ' would you please shut up'], ['catelyn', ' my queen'], ['cersei', ' we've been riding for a month, my love. surely the dead can wait'], ['arya', ' where's the imp'], ['ned', ' tell me about jon arryn'], ['ned', ' we both did'], ['ned', ' aye']]
```

In [42]:

```
# A variable called unique is created and that is defined as empty dictionary as dictionary
unique = {}
# using for loop function to add keys where speakers and values dialogues
for i, j in conversation_list_3:
    if i in unique.keys():
        unique[i].append(j)
    else:
        unique[i] = [j]
```

In [44]:

```
unique.keys()
```

Out[44]:

```
dict_keys(['WILL', 'WAYMAR ROYCE', 'GARED', 'ROYCE', 'JON', 'SEPTA MORDAN  
E', 'SANSA', 'NED', 'ROBB', 'CASSEL', 'CATELYN', 'BRAN', 'THEON', 'CERSE  
I', 'JAIME', 'ROBERT', 'ARYA'])
```

In [46]:

```
# Using for loop to add a list of speakers to the list created  
speakers = []  
for i in unique.keys():  
    speakers.append(i)  
speakers
```

Out[46]:

```
['WILL',  
 'WAYMAR ROYCE',  
 'GARED',  
 'ROYCE',  
 'JON',  
 'SEPTA MORDANE',  
 'SANSA',  
 'NED',  
 'ROBB',  
 'CASSEL',  
 'CATELYN',  
 'BRAN',  
 'THEON',  
 'CERSEI',  
 'JAIME',  
 'ROBERT',  
 'ARYA']
```


In [51]:

```
# To unique speaker, adding the list of words spoken by them
words = []
for speaker in speakers:
    s = unique[speaker]
    words.append(s)
words
```

Out[51]:

```
[[' I've never seen wildlings do a thing like this. I've never seen a th
ing like this, not ever in my life',
  ' Close as any man would',
  ' Whatever did it to them could do it to us. They even killed the chil
dren',
  ' They were here'],
[' How close did you get'],
[' We should head back to the wall',
  ' Our orders were to track the wildlings. We tracked them. They won't
trouble us no more',
  ' See where they went'],
[' Do the dead frighten you',
  ' You don't think he'll ask us how they died? Get back on your horse',
  ' It's a good thing we're not children. You want to run away south, ru
n away. Of course, they will behead you as a deserter ... If I don't catch
you first. Get back on your horse. I won't say it again',
  ' Your dead men seem to have moved camp',
  ' What is it'l.
```

In [56]:

```
# Used Loop function for creating separate text files containing unique words.
for speaker in speakers:
    file = open(f'C:/Users/aitha/OneDrive/Desktop/Python_File_handling_Project_By_Mahima/
a = speakers.index(speaker)
b = words[a]
j = " ".join([str(item) for item in b])
abc = j.split(" ")
unique_words = []
for word in abc:
    if word not in unique_words:
        unique_words.append(word)
for w in unique_words:
    file.write(w + '\n')
file.close()
```

In []: