

Task1 - Find out the number of unique characters in the sample conversation

```
In [13]: import pandas as pd
import numpy as np
```

```
In [14]: a = []
f = open('D:/Internshala/python/DSPProject/conv.txt','r').readlines()
# print each line text
for line in f :
    unique_characters = line.split(' ')
    if unique_characters[0] != '\n':
        if unique_characters[0].endswith(':') == 1:
            a.append(unique_characters[0].replace(":", ""))
        else:
            c = (unique_characters[0] + " " + unique_characters[1])
            a.append(c.replace(":", ""))
b=set(a)
print("No of unique characters involved in the conversation are :- ",len(b),"Those are :- ")
```

No of unique characters involved in the conversation are :- 17  
Those are :-

```
Out[14]: {'ARYA',
'BRAN',
'CASSEL',
'CATELYN',
'CERSEI',
'GARED',
'JAIME',
'JON',
'NED',
'ROBB',
'ROBERT',
'ROYCE',
'SANSA',
'SEPTA MORDANE',
'THEON',
'WAYMAR ROYCE',
'WILL'}
```

```
In [15]: # Opening the text file and storing its contents in a list stored_conv
with open("D:/Internshala/python/DSPProject/conv.txt") as f:
    conv = f.read()

# splitting the list contents with the parameter \n to make unique list elements by
temp_list = list(conv.split('\n'))
temp_list
```

```
Out[15]: ['WILL: Iâ€™ve never seen wildlings do a thing like this. Iâ€™ve never seen a thin
g like this, not ever in my life.',
'',
'WAYMAR ROYCE: How close did you get?',
'',
'WILL: Close as any man would.',
'',
'GARED: We should head back to the wall.',
'',
'ROYCE: Do the dead frighten you?',
'',
'GARED: Our orders were to track the wildlings. We tracked them. They wonâ€™t tro
uble us no more.',
'',
'ROYCE: You donâ€™t think heâ€™ll ask us how they died? Get back on your horse.',
'',
'WILL: Whatever did it to them could do it to us. They even killed the childre
n.',
'',
'ROYCE: Itâ€™s a good thing weâ€™re not children. You want to run away south, run
away. Of course, they will behead you as a deserter â€¦ If I donâ€™t catch you fir
st. Get back on your horse. I wonâ€™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. Fatherâ€™s watching.',
'',
'JON: And your mother.',
'',
'SEPTA MORDANE: Fine work, as always. Well done.',
'',
'SANSA: Thank you.',
'',
'SEPTA MORDANE: I love the detail that youâ€™ve managed to get in this corners.',
'',
'NED: And which one of you was a marksman at ten? Keep practicing, Bran. Go on.',
'',
'JON: Donâ€™t think too much, Bran.',
'',
'ROBB: Relax your bow arm.',
'',
'CASSEL: Lord Stark. My lady. A guardsman just rode in from the hills. Theyâ€™ve
captured a deserter from the Nightâ€™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 heâ€™s coming, too.',
'',
'CATELYN: Ned. Ten is too young to see such things.',
'',
'NED: He wonâ€™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 â€¦',
'',
'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.',
'',
'NED: But do you understand why I had to kill him?',
'',
'BRAN: Our way is the old way?',
'',
'NED: The man who passes the sentence should swing the sword.',
'',
'BRAN: Is it true he saw the White Walkers?',
'',
'NED: The White Walkers have been gone for thousands of years.',
'',
'BRAN: So he was lying?',
'',
'NED: A madman sees what he sees.',
'',
'JON: What is it?',
'',
'THEON: Mountain lion?',
'',
'NED: There are no mountain lions in these woods.',
'',
'THEON: Itâ€™s a freak.',
'',
'NED: Itâ€™s a direwolf.',
'',
'NED: Tough old beast.',
'',
'ROBB: There are no direwolves south of the Wall.',
'',
'JON: Now there are five.',
'',
'JON: You want to hold it?',
'',
'BRAN: Where will they go? Their motherâ€™s dead.',
'',
'CASSEL: They donâ€™t belong down here.',
'',
'NED: Better a quick death. They wonâ€™t last without their mother.',
'',
'THEON: Right. Give it here.',
'',
'BRAN: NO!',
'',
'ROBB: Put away your blade.',
'',
'THEON: I take orders from your father, not you.',
'',
'BRAN: Please, father!',
'',
'NED: Iâ€™m sorry, Bran.'
```

```
''  
'JON: Lord Stark? There are five pups. One for each of the Stark children. The direwolf is the sigil of your House. They were meant to have them.',  
''  
'NED: You will train them yourselves. You will feed them yourselves. And if they die, you will bury them yourselves.',  
''  
'BRAN: What about you?',  
''  
'JON: Iâ€™m not a Stark. Get on.',  
''  
'ROBB: What is it?',  
''  
'CERSEI: What if Jon Arryn told someone?',  
''  
'JAIME: But who would he tell?',  
''  
'CERSEI: My husband.',  
''  
'JAIME: If he told the king, both our heads would be skewered on the city gates by now. Whatever Jon Arryn knew or didnâ€™t know, it died with him. And Robert will choose a new Hand of the king, someone to do his job while heâ€™s off fucking boys and hunting whores. Or is it the other way around? And life will go on.',  
''  
'CERSEI: You should be the Hand of the king.',  
''  
'JAIME: Thatâ€™s an honor I can do without. Their days are too long, their lives are too short.',  
''  
'CATELYN: All these years and I still feel like an outsider when I come here.',  
''  
'NED: You have five northern children. Youâ€™re not an outsider.',  
''  
'CATELYN: I wonder if the old gods agree.',  
''  
'NED: Itâ€™s your gods with all the rules.',  
''  
'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. Heâ€™s never met a girl he likes better than his own hair.',  
''  
'CATELYN: Gods, but they grow fast.',  
''  
'BRAN: I saw the king! Heâ€™s got hundreds of people!',  
''  
'CATELYN: How many times have I told you No climbing!',  
''  
'BRAN: But heâ€™s coming right now! Down our road!',  
''  
'CATELYN: I want you to promise me. No more climbing.',  
''  
'NED: Your Grace.',  
''  
'ROBERT: Youâ€™ve got fat.',  
''  
'ROBERT: Cat!'
```

```

'',
'CATELYN: Your Grace.',
'',
'ROBERT: Nine years. Why havenâ€™t I seen you? Where the hell have you been?',
'',
'NED: Guarding the North for you, Your Grace. Winterfell is yours.',
'',
'ARYA: Whereâ€™s the Imp?',
'',
'SANSA: Will you shut up?',
'',
'ROBERT: Who have we here? You must be Robb.',
'',
'ARYA: Arya.',
'',
'ROBERT: Ooh. Show us your muscles. Youâ€™ll be a soldier.',
'',
'ARYA: Thatâ€™s Jaime Lannister. The queenâ€™s twin brother.',
'',
'SANSA: Would you please shut up.',
'',
'NED: My queen.',
'',
'CATELYN: My queen.',
'',
'ROBERT: Take me to your crypt. I want to pay my respects.',
'',
'CERSEI: Weâ€™ve been riding for a month, my love. Surely the dead can wait.',
'',
'ROBERT: Ned.',
'',
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'CERSEI: Where is our brother? Go find the little beast.',
'',
'NED: Tell me about Jon Arryn.',
'',
'ROBERT: One minute he was fine, and then â€¦ Burned right through him, whatever
it was. I loved that man.',
'',
'NED: We both did.',
'',
'ROBERT: He never had to teach you much, but me â€¦ You remember me at 16? All I
wanted to do was crack skulls and fuck girls. He showed me what was what.',
'',
'NED: Aye.',
'',
'']

```

Task 2 - Create a new text file for each of the characters with their name and store the unique words said by them in their respective file. Store one word in one line.

In [16]: *# creating a function to remove the punctuation marks within the dialouges*

```

def remove_punctuation(string):
    punctuation = " ' , . ! ? ... "
    clean_text = ''.join(ch for ch in string if ch not in punctuation)
    return (clean_text)

```

In [17]:

```

updated_list = []
for i in range(len(temp_list)):
    updated_list.append(remove_punctuation(temp_list[i]))
updated_list

```



```

Out[17]: ['WILL: Iâ€™ve never seen wildlings do a thing like this Iâ€™ve never seen a thing
like this not ever in my life',
'',
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way Of course they will behead you as a deserter â€¦ If I donâ€™t catch you first
Get back on your horse I wonâ€™t say it again',
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'NED: And which one of you was a marksman at ten Keep practicing Bran Go on',
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'JON: Donâ€™t think too much Bran',
'',
'ROBB: Relax your bow arm',
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'CASSEL: Lord Stark My lady A guardsman just rode in from the hills Theyâ€™ve cap
tured a deserter from the Nightâ€™s Watch',
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'JON: Father will know if you do',  
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Stark Lord of Winterfell and Warden of the North sentence you to die',  
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```

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'NED: Guarding the North for you Your Grace Winterfell is yours',
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'SANSA: Will you shut up',
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'ROBERT: Who have we here You must be Robb',
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was I loved that man',
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'NED: We both did',
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'ROBERT: He never had to teach you much but me â€¦ You remember me at 16 All I wa
nted to do was crack skulls and fuck girls He showed me what was what',
'',
'NED: Aye',
'',
'']

```

In [18]: *# Creating a list for storing the name of the characters as well as storing the inc*

```

name_of_character = []
dialogues_WILL = []
dialogues_WAYMAR = []
dialogues_GARED = []
dialogues_ROYCE = []
dialogues_JON = []
dialogues_SEPTA = []
dialogues_SANSA = []
dialogues_NED = []
dialogues_ROBB = []
dialogues_CASSEL = []
dialogues_CATELYN = []
dialogues_BRAN = []
dialogues_THEON = []

```

```

dialogues_CERSEI = []
dialogues_JAIME = []
dialogues_ROBERT = []
dialogues_ARYA = []

```

In [19]: *# main logic of code*

```

for i in range(len(updated_list)):                                # traversing the list
    if updated_list[i] == '':
        continue
    else:
        name_of_character.append(updated_list[i].split(':')[0])    # storing the character name
        if name_of_character[-1] == 'WILL':
            for word in updated_list[i].split(':')[1].split():      # splitting the words
                if word not in dialogues_WILL:                       # in this case, word is not in the list
                    dialogues_WILL.append(word)                     # then we append the word
                with open('WILL.txt' , mode = 'w') as f:             # said are
                    for word in dialogues_WILL:                       # then we write the word
                        f.write(word)
                        f.write('\n')

        elif name_of_character[-1] == 'ARYA':
            for word in updated_list[i].split(':')[1].split():
                if word not in dialogues_ARYA:
                    dialogues_ARYA.append(word)
            with open('ARYA.txt' , mode = 'w') as f:
                for word in dialogues_ARYA:
                    f.write(word)
                    f.write('\n')

        elif name_of_character[-1] == 'BRAN':
            for word in updated_list[i].split(':')[1].split():
                if word not in dialogues_BRAN:
                    dialogues_BRAN.append(word)
            with open('BRAN.txt' , mode = 'w') as f:
                for word in dialogues_BRAN:
                    f.write(word)
                    f.write('\n')

        elif name_of_character[-1] == 'WAYMAR ROYCE':              # We do the same for WAYMAR ROYCE
            for word in updated_list[i].split(':')[1].split():
                if word not in dialogues_WAYMAR:
                    dialogues_WAYMAR.append(word)
            with open('WAYMAR ROYCE.txt' , mode = 'w') as f:
                for word in dialogues_WAYMAR:
                    f.write(word)
                    f.write('\n')

        elif name_of_character[-1] == 'CASSEL':
            for word in updated_list[i].split(':')[1].split():
                if word not in dialogues_CASSEL:
                    dialogues_CASSEL.append(word)
            with open('CASSEL.txt' , mode = 'w') as f:
                for word in dialogues_CASSEL:
                    f.write(word)
                    f.write('\n')

        elif name_of_character[-1] == 'CATELYN':
            for word in updated_list[i].split(':')[1].split():
                if word not in dialogues_CATELYN:
                    dialogues_CATELYN.append(word)
            with open('CATELYN.txt' , mode = 'w') as f:
                for word in dialogues_CATELYN:

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```

        f.write(word)
        f.write('\n')

    elif name_of_character[-1] == 'GARED':
        for word in updated_list[i].split(':')[1].split():
            if word not in dialogues_GARED:
                dialogues_GARED.append(word)
            with open('GARED.txt' , mode = 'w') as f:
                for word in dialogues_GARED:
                    f.write(word)
                    f.write('\n')

    elif name_of_character[-1] == 'ROYCE':
        for word in updated_list[i].split(':')[1].split():
            if word not in dialogues_ROYCE:
                dialogues_ROYCE.append(word)
            with open('ROYCE.txt' , mode = 'w') as f:
                for word in dialogues_ROYCE:
                    f.write(word)
                    f.write('\n')

    elif name_of_character[-1] == 'JON':
        for word in updated_list[i].split(':')[1].split():
            if word not in dialogues_JON:
                dialogues_JON.append(word)
            with open('JON.txt' , mode = 'w') as f:
                for word in dialogues_JON:
                    f.write(word)
                    f.write('\n')

    elif name_of_character[-1] == 'SEPTA MORDANE':
        for word in updated_list[i].split(':')[1].split():
            if word not in dialogues_SEPTA:
                dialogues_SEPTA.append(word)
            with open('SEPTA MORDANE.txt' , mode = 'w') as f:
                for word in dialogues_SEPTA:
                    f.write(word)
                    f.write('\n')

    elif name_of_character[-1] == 'SANSA':
        for word in updated_list[i].split(':')[1].split():
            if word not in dialogues_SANSA:
                dialogues_SANSA.append(word)
            with open('SANSA.txt' , mode = 'w') as f:
                for word in dialogues_SANSA:
                    f.write(word)
                    f.write('\n')

    elif name_of_character[-1] == 'NED':
        for word in updated_list[i].split(':')[1].split():
            if word not in dialogues_NED:
                dialogues_NED.append(word)
            with open('NED.txt' , mode = 'w') as f:
                for word in dialogues_NED:
                    f.write(word)
                    f.write('\n')

    elif name_of_character[-1] == 'ROBB':
        for word in updated_list[i].split(':')[1].split():
            if word not in dialogues_ROBB:
                dialogues_ROBB.append(word)
            with open('ROBB.txt' , mode = 'w') as f:
                for word in dialogues_ROBB:
                    f.write(word)

```

```
f.write('\n')

elif name_of_character[-1] == 'THEON':
    for word in updated_list[i].split(':')[1].split():
        if word not in dialogues_THEON:
            dialogues_THEON.append(word)
    with open('THEON.txt' , mode = 'w') as f:
        for word in dialogues_THEON:
            f.write(word)
            f.write('\n')

elif name_of_character[-1] == 'CERSEI':
    for word in updated_list[i].split(':')[1].split():
        if word not in dialogues_CERSEI:
            dialogues_CERSEI.append(word)
    with open('CERSEI.txt' , mode = 'w') as f:
        for word in dialogues_CERSEI:
            f.write(word)
            f.write('\n')

elif name_of_character[-1] == 'JAIME':
    for word in updated_list[i].split(':')[1].split():
        if word not in dialogues_JAIME:
            dialogues_JAIME.append(word)
    with open('JAIME.txt' , mode = 'w') as f:
        for word in dialogues_JAIME:
            f.write(word)
            f.write('\n')

elif name_of_character[-1] == 'ROBERT':
    for word in updated_list[i].split(':')[1].split():
        if word not in dialogues_ROBERT:
            dialogues_ROBERT.append(word)
    with open('ROBERT.txt' , mode = 'w') as f:
        for word in dialogues_ROBERT:
            f.write(word)
            f.write('\n')

else:
    continue
```

In [ ]: