In [1]:
```python
#Importing numpy
import numpy as np
```

In [2]:
```python
#Opening and Reading Text
with open("C:/Users/irsha/Downloads/conv.txt","r") as c:
    text = c.read()

print(text)
```

WILL: I've never seen wildlings do a thing like this. I've never seen a thing 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 won't trouble us no more.

ROYCE: You don't think he'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 children.

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.

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 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 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 didn't know, it died with him. And Robert will choose a new Hand of the king, someone to do his job while he's off fucking boars 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: That'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. You're not an outsider.

CATELYN: I wonder if the old gods agree.

NED: It'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. 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 Imp?

SANSA: Will you shut up?

ROBERT: Who have we here? You must be Robb.

ARYA: Arya.

ROBERT: Ooh. Show us your muscles. You'll be a soldier.

ARYA: That's Jaime Lannister. The queen'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: We've been riding for a month, my love. Surely the dead can wait.

ROBERT: Ned.

ARYA: Whereâ€™s the Imp?

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.

In [3]:
```python
#Removing unrecognized characters and converting byte code text to normal text format
encoded_text = text.encode("ascii", "ignore")
cleaned_text = encoded_text.decode("utf-8")

print(cleaned_text)
```

WILL: Ive never seen wildlings do a thing like this. Ive never seen a thing 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 wont trouble us no more.

ROYCE: You dont think hell 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 children.

ROYCE: Its a good thing were not children. You want to run away south, run away. Of course, they will behead you as a deserter If I dont catch you first. Get back on your horse. I wont 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. Fathers watching.

JON: And your mother.

SEPTA MORDANE: Fine work, as always. Well done.

SANSA: Thank you.

SEPTA MORDANE: I love the detail that youve managed to get in this corners.

NED: And which one of you was a marksman at ten? Keep practicing, Bran. Go on.

JON: Dont think too much, Bran.

ROBB: Relax your bow arm.

CASSEL: Lord Stark. My lady. A guardsman just rode in from the hills. Theyve captured a deserter from the Nights 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 hes coming, too.

CATELYN: Ned. Ten is too young to see such things.

NED: He wont 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.

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: Its a freak.

NED: Its 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 mothers dead.

CASSEL: They dont belong down here.

NED: Better a quick death. They wont 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: Im 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: Im 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 didnt know, it died with him. And Robert will choose a new Hand of the king, someone to do his job while hes off fucking boars 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: Thats 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. Youre not an outsider.

CATELYN: I wonder if the old gods agree.

NED: Its 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. Hes never met a girl he likes better than his own hair.

CATELYN: Gods, but they grow fast.

BRAN: I saw the king! Hes got hundreds of people!

CATELYN: How many times have I told you No climbing!

BRAN: But hes coming right now! Down our road!

CATELYN: I want you to promise me. No more climbing.

NED: Your Grace.

ROBERT: Youve got fat.

ROBERT: Cat!

CATELYN: Your Grace.

ROBERT: Nine years. Why havent I seen you? Where the hell have you been?

NED: Guarding the North for you, Your Grace. Winterfell is yours.

ARYA: Wheres the Imp?

SANSA: Will you shut up?

ROBERT: Who have we here? You must be Robb.

ARYA: Arya.

ROBERT: Ooh. Show us your muscles. Youll be a soldier.

ARYA: Thats Jaime Lannister. The queens 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: Weve been riding for a month, my love. Surely the dead can wait.

ROBERT: Ned.

ARYA: Wheres the Imp?

CERSEI: Where is our brother? Go find the little beast.

NED: Tell me about Jon Arryn.

ROBERT: One minute he was fine, and then Burned right through him, whatever it was. I l
oved that man.

NED: We both did.

ROBERT: He never had to teach you much, but me You remember me at 16? All I wanted to d
o was crack skulls and fuck girls. He showed me what was what.

NED: Aye.

In [4]:
```python
#Defining punctuations for cleaning the data
punc = '''.?!,'''

for element in cleaned_text:
    if element in punc:
        cleaned_text= cleaned_text.replace(element, " ")
#Cleaned data
print(cleaned_text)
```

WILL: Ive never seen wildlings do a thing like this Ive never seen a thing like this n
ot 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 wont trouble us no
more

ROYCE: You dont think hell ask us how they died Get back on your horse

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ROYCE: Its a good thing were not children You want to run away south run away Of cour
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e I wont 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 Fathers watching

JON: And your mother

SEPTA MORDANE: Fine work as always Well done

SANSA: Thank you

SEPTA MORDANE: I love the detail that youve managed to get in this corners

NED: And which one of you was a marksman at ten Keep practicing Bran Go on

JON: Dont think too much Bran

ROBB: Relax your bow arm

CASSEL: Lord Stark My lady A guardsman just rode in from the hills Theyve captured a deserter from the Nights 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 hes coming too

CATELYN: Ned Ten is too young to see such things

NED: He wont 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

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: Its a freak

NED: Its 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 mothers dead

CASSEL: They dont belong down here

NED: Better a quick death They wont 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: Im 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: Im 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 didnt know it died with him And Robert will choose a new Hand of the king someone to do his job while hes off fucking boars and hunting whores Or is it the other way around And life will go on

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NED: You have five northern children Youre not an outsider

CATELYN: I wonder if the old gods agree

NED: Its 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 Hes never met a girl he likes better than his own hair

CATELYN: Gods but they grow fast

BRAN: I saw the king Hes got hundreds of people

CATELYN: How many times have I told you No climbing

BRAN: But hes coming right now Down our road

CATELYN: I want you to promise me No more climbing

NED: Your Grace

ROBERT: Youve got fat

ROBERT: Cat

CATELYN: Your Grace

ROBERT: Nine years Why havent I seen you Where the hell have you been

NED: Guarding the North for you Your Grace Winterfell is yours

ARYA: Wheres the Imp

SANSA: Will you shut up

ROBERT: Who have we here You must be Robb

ARYA: Arya

ROBERT: Ooh Show us your muscles Youll be a soldier

ARYA: Thats Jaime Lannister The queens 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: Weve been riding for a month my love Surely the dead can wait

ROBERT: Ned

ARYA: Wheres the Imp

CERSEI: Where is our brother Go find the little beast

NED: Tell me about Jon Arryn

ROBERT: One minute he was fine and then Burned right through him whatever it was I l
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NED: We both did

ROBERT: He never had to teach you much but me You remember me at 16 All I wanted to d
o was crack skulls and fuck girls He showed me what was what

NED: Aye

In [5]:
```python
#Splitting paragraphs into lines
para_1 = cleaned_text.splitlines()

print(para_1)
```

['WILL: Ive never seen wildlings do a thing like this Ive never seen a thing like this
not ever in my life ', '', 'WAYMAR ROYCE: How close did you get ', '', 'WILL: Close as a
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to teach you much but me You remember me at 16 All I wanted to do was crack skulls an
d fuck girls He showed me what was what ', '', 'NED: Aye ', '']

In [6]:
```python
para_2 = []
characters = []

#splitting conversations by character
for lines in para_1:
    sentence = lines.split(':')

    if len(sentence)!=1: #ignores blank lines
        para_2.append(sentence) # stores the sentences by character name and conversati
        characters.append(sentence[0]) # stores person names
```

Question 1.

#Find out the number of unique characters in the sample conversation?

In [7]:
```python
#Solution:

# getting unique characters from the list
unique_characters = np.unique(characters)

# counting the number of unique characters
count_characters = len(unique_characters)

print(count_characters)
```

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Question 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 [8]:
```python
#extracting details for every unique characters present in the conversation
for people in unique_characters:
    speech_words=[]
    unique_words=[]

    # for each person their every conversation will be stored in speech_words
    for person, speech in para_2:
        if people == person:
            speech_words+=(speech.lower()).split() # splitting after making it case ins
        unique_words=np.unique(speech_words) # extracting the unique words


    # creating a text file in append mode to store the unique words
    with open('{}.txt'.format(people), 'a') as c:
        for words in unique_words:
            c.write(words+'\n') # storing each word in new line

print("Thank you!")
```

Thank you!