

# HW\_4

February 27, 2020

```
[1]: from PyDictionary import PyDictionary
from random_word import RandomWords
import re
import random
dictionary = PyDictionary()
```

```
[2]: winners = {
    r".est..icture": "'Parasite', directed by Bong Joon Ho",
    r".est..inematography": "'1917', directed by Sam Mendes and shot by Roger_
↪Deakins",
    r".est..eading..ctor": "Joaquin Phoenix in 'Joker'",
    r".est..upporting..ctor": "Brad Pitt in 'Once Upon a Time in Hollywood'",
    r".est..eading..ctress": "Renee Zellweger in 'Judy'",
    r".est..upporting..ctress": "Laura Dern in 'Marriage Story'",
    r".est..iginal..creenplay": "'Parasite', written by Bong Joon Ho",
    r".est..irector": "Bong Joon Ho for 'Parasite'"
}

directors = {
    r".ong..oon..o": "Parasite",
    r".artin..corsesse": "The Irishman",
    r".odd..hillips": "Joker",
    r".am..endes": "1917",
    r".uentin..arantino": "Once Upon a Time in Hollywood",
}

movies = {
    r".arasite": "Best Picture, Best Director, Best Screenplay, and Best_
↪International Feature",
    r".oker": "Best Leading Actor and Best Original Score",
    r"1917": "Best Cinematography, Best Sound Mixing, and Best Visual Effects",
    r".o.o..abbit": "Best Adapted Screenplay",
    r".ord..s..errari": "Best Film Editing and Best Sound Editing"
}

trivia = [
```

"in Terminator II: Judgement Day, Arnold Schwarzenegger earned \$15 million for speaking a total of 700 words of dialogue - which breaks down to \$21,429 per word. 'Hasta la vista, baby'? That cost \$85,716.",

"in Jurassic Park, the giant Tyrannosaurus rex occasionally malfunctioned when it rained. Producer Kathleen Kennedy recalls, 'The T. rex went into the heebie-jeebies sometimes. Scared the crap out of us. We'd be, like, eating lunch, and all of a sudden a T. rex would come alive. At first, we didn't know what was happening, and then we realized it was the rain. You'd hear people start screaming'.",

"in The Lord of the Rings, the cast often had to fly to remote shoot locations by helicopter. But Sean Bean was afraid of flying. So, when the crew shot the scenes of the Fellowship crossing the snowy mountains, Bean would spend two hours every morning climbing from the base of the mountain to the set near the top, already dressed as Boromir. The cast and crew would pass him as they flew up.",

"in Castaway, to make himself look like an average, out-of-shape, middle-aged man for the scenes in the beginning of the film, Tom Hanks didn't exercise and allowed himself to grow pudgy. Production was then halted for a year so he could lose 50 pounds and grow out his hair for his time spent on the deserted island.",

"in Star Wars: The Phantom Menace, shaving razors play key roles in the film. When Liam Neeson's character Qui-Gon Jinn uses a high-tech 'communicator' device, it's actually a redecorated Sensor Excel Razor for Women. The sound of the hovering battle tanks used by the battle droids was created by running an electric razor around a metal salad bowl and then digitally lowering the pitch.",

"in Harry Potter and the Prisoner of Azkaban, in order to acquaint himself with his three lead actors, director Alfonso Cuarón had each of them write an essay about their characters from a first-person point of view. Emma Watson, in true Hermione fashion, went a little overboard and wrote a 16-page essay. Daniel Radcliffe wrote a simple one-page summary, and Rupert Grint never even turned his in.",

"in Gangs of New York, Martin Scorsese ends the film with a shot of the New York skyline including the World Trade Center Towers even though the film was finished after the buildings were destroyed in the terrorist attacks of Sept. 11. Scorsese chose to end with that shot rather than continue with a skyline without the WTC because the movie is supposed to be about the people who built New York not those who tried to destroy it",

"in Forrest Gump, when Forrest gets up to talk at the Vietnam rally in Washington, you can't hear him because the microphone plug is pulled. According to Hanks, Forrest says, 'Sometimes when people go to Vietnam, they go home to their mommas without any legs. Sometimes they don't go home at all. That's a bad thing. That's all I have to say about that.'",

```

    "in Fargo, William H. Macy begged the directors for the role of Jerry
    ↳Lundegaard, performing two readings for the part. When the Coen brothers
    ↳didn't get back to him, Macy tracked them down in New York and told them,
    ↳'I'm very, very worried that you are going to screw up this movie by giving
    ↳this role to somebody else. It's my role, and I'll shoot your dogs if you
    ↳don't give it to me.' He was joking, of course."

]

intro_phrases = [
    "Did you know that",
    "Here's a fun one:",
    "Guess what?",
    "How about this:",
    "Fun fact!",
    "I bet you didn't know that"
]

favorites = {
    "Up": ["Carl and Ellie get married", "Carl and Russell find Kevin", "Carl
    ↳and Russell eat ice cream together"],
    "Cars": ["Lightning McQueen wins the Piston Cup", "Lightning McQueen turns
    ↳left to go right", "Doc Hudson and the other cars show up to the race"],
    "Avengers: Endgame": ["Thor, Captain America and Iron Man fight Thanos
    ↳together", "all the Avengers reunite", "Captain Marvel returns to take down
    ↳Thanos's ship"],
    "The Incredibles": ["Edna Mode makes Mr. Incredible a new suit", "Mr.
    ↳Incredible and FroZone save everyone from the burning building", "the family
    ↳learns to use their powers together"],
    "1917": ["...well, technically the movie is sort of ONE SCENE so I guess
    ↳all of it!"],
    "Jurassic Park": ["the T.rex attacks the tour car", "the water in the cup
    ↳starts to shake", "the banner falls in front of the T.rex at the end of the
    ↳movie", "Dr. Grant dreams a raptor is in the helicopter with him"]
}

emotions = [
    "amused",
    "excited",
    "spooked",
    "depressed",
    "inspired",
    "confused",
    "irritated",
    "surprised"
]

```

```

def chat():
    x = input()
    if re.match('.ello', x):
        z = re.search('.ello', x)
        print(">>", z.group(), "to you! Tell me your name?")
    elif re.search('.y name is', x):
        print(">> Nice to meet you", x.split()[-1], "! What's your favorite_
↳movie?")
    elif re.search('...bye.', x):
        z = re.search('bye', x)
        print(">>", z.group(), "already? See you later!")
        return
    elif re.search(r'.ow are you', x):
        print(">>", "I'm doing great! How are you?")
    elif re.search(r"I'm", x) and re.search(r'good', x) or re.search(r'well',_
↳x):
        x = re.search(r'good', x) or re.search(r'well', x)
        print(">>", "I'm glad to hear you're doing", x.group())
    elif re.search(r'favorite movie', x) and re.match(r'.y', x):
        print(">> I like", x.split()[-1], "a lot! What was your favorite part?")
    elif re.search(r'I', x) and re.search(r'liked', x):
        print(">> Interesting! I'll admit, that part really", random.
↳choice(emotions), "me!")
    elif re.search(r'favorite movie', x) and re.search(r'your', x):
        print(">> Good question - it changes a lot! I definitely have a_
↳favorite from this year's Oscars Nominees though!")
    elif re.search(r'.ou?.', x) and re.search(r"favorite", x) and re.
↳search(r'scene', x):
        q = random.choice(list(favorites.keys()))
        print(">> My favorite movie scene was in", q, "when", random.
↳choice(favorites[q]))
    for i in winners:
        if re.search(i, x):
            print(">>", winners[i], "won!")
    for i in directors:
        if re.search(i, x) and re.search(r"direct", x):
            z = re.search(i, x)
            print(">>", z.group(), "directed", directors[i], "!")
    for i in directors.values():
        if re.search(i, x) and re.search(r".ho.direct?[ed]", x):
            z = re.search(i, x)
            print(">>", "directed", i, "!")
    for i in movies:

```

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        if re.search(i, x) and (re.search(r"w.n", x) or re.search(r"awards", x) or re.search(r"me", x)):
            z = re.search(i, x)
            print(">>", z.group(), "won", movies[i], "at the Oscars.")
        if re.search(r"trivia", x) or (re.search(r"facts", x) or re.search(r".ell", x) or re.search(r"me", x)):
            print(">>", random.choice(intro_phrases), random.choice(trivia))
        if re.search(r'.bout the..scars', x):
            print(">> The Oscars are held every year in February to celebrate the best of the year's cinematic works, as nominated and selected by voting members of the Academy and Associated Foreign Press.")

    return chat()

```

Hello! I am OSCAR, and I love talking about movies! You can ask me about the Oscars, or we can talk about our favorite movies! You can also ask me for some random movie trivia!

## 1 Personal Trial

[3]: `chat()`

```

Hello Oscar!
>> Hello to you! Tell me your name?
My name is Wyatt
>> Nice to meet you Wyatt ! What's your favorite movie?
My favorite movie is Jaws
>> I like Jaws a lot! What was your favorite part?
I liked when Quint told the crew they needed a bigger boat
>> Interesting! I'll admit, that part really surprised me!
Let's talk about the Oscars!
>> The Oscars are held every year in February to celebrate the best of the
year's cinematic works, as nominated and selected by voting members of the
Academy and Associated Foreign Press.
Who won Best Picture this year?
>> 'Parasite', directed by Bong Joon Ho won!
Cool! Who won Best Director at the Oscars?
>> Bong Joon Ho for 'Parasite' won!
Wow, did Parasite win a lot of awards?
>> Parasite won Best Picture, Best Director, Best Screenplay, and Best
International Feature at the Oscars.
That's quite a few! Did Sam Mendes direct anything this year?
>> Sam Mendes directed 1917 !
What did 1917 win?
>> 1917 won Best Cinematography, Best Sound Mixing, and Best Visual Effects at
the Oscars.
Did Roger Deakins win that Best Cinematography, by chance?

```

>> '1917', directed by Sam Mendes and shot by Roger Deakins won!  
Nice! So what's your favorite movie?  
>> Good question - it changes a lot! I definitely have a favorite from this year's Oscars Nominees though!  
Do you have a favorite scene?  
>> My favorite movie scene was in The Incredibles when Edna Mode makes Mr. Incredible a new suit  
Is that REALLY your favorite scene?  
>> My favorite movie scene was in Avengers: Endgame when all the Avengers reunite  
That's what I thought, as should be everyone's favorite. Can you tell me some movie trivia?  
>> I bet you didn't know that in The Lord of the Rings, the cast often had to fly to remote shoot locations by helicopter. But Sean Bean was afraid of flying. So, when the crew shot the scenes of the Fellowship crossing the snowy mountains, Bean would spend two hours every morning climbing from the base of the mountain to the set near the top, already dressed as Boromir. The cast and crew would pass him as they flew up.  
That's pretty funny! Can you tell me another one?  
>> Fun fact! in Gangs of New York, Martin Scorsese ends the film with a shot of the New York skyline including the World Trade Center Towers even though the film was finished after the buildings were destroyed in the terrorist attacks of Sept. 11. Scorsese chose to end with that shot rather than continue with a skyline without the WTC because the movie is supposed to be about the people who built New York not those who tried to destroy it  
Any more trivia on your mind?  
>> Here's a fun one: in Jurassic Park, the giant Tyrannosaurus rex occasionally malfunctioned when it rained. Producer Kathleen Kennedy recalls, 'The T. rex went into the heebie-jeebies sometimes. Scared the crap out of us. We'd be, like, eating lunch, and all of a sudden a T. rex would come alive. At first, we didn't know what was happening, and then we realized it was the rain. You'd hear people start screaming'.  
That's pretty scary actually! I really liked the T.rex chase in Jurassic Park  
>> Interesting! I'll admit, that part really excited me!  
A few more questions - who won Best Supporting Actress this year?  
>> Laura Dern in 'Marriage Story' won!  
how about best Supporting actor?  
>> Brad Pitt in 'Once Upon a Time in Hollywood' won!  
Did Todd Phillips direct anything this year?  
>> Todd Phillips directed Joker !  
Did Joker win anything?  
>> Joker won Best Leading Actor and Best Original Score at the Oscars.  
In Joker, who won Best Leading Actor?  
>> Joaquin Phoenix in 'Joker' won!  
>> Joker won Best Leading Actor and Best Original Score at the Oscars.  
Tell me your favorite scene one more time?  
>> My favorite movie scene was in Up when Carl and Russell eat ice cream together

```
>> Here's a fun one: in Forrest Gump, when Forrest gets up to talk at the
Vietnam rally in Washington, you can't hear him because the microphone plug is
pulled. According to Hanks, Forrest says, 'Sometimes when people go to Vietnam,
they go home to their mommas without any legs. Sometimes they don't go home at
all. That's a bad thing. That's all I have to say about that.'
Thanks for the chat! Goodbye!
>> bye already? See you later!
```

## 2 Friend Trial

```
[4]: chat()
```

```
hello
>> hello to you! Tell me your name?
my name is monica
>> Nice to meet you monica ! What's your favorite movie?
probably star wars
what's your favorite movie
>> Good question - it changes a lot! I definitely have a favorite from this
year's Oscars Nominees though!
what about the oscars
>> The Oscars are held every year in February to celebrate the best of the
year's cinematic works, as nominated and selected by voting members of the
Academy and Associated Foreign Press.
that's cool
Who won
who won best picture
>> 'Parasite', directed by Bong Joon Ho won!
yeah he did
what else did parasite win
>> parasite won Best Picture, Best Director, Best Screenplay, and Best
International Feature at the Oscars.
sick
tell me some trivia
>> How about this: in Forrest Gump, when Forrest gets up to talk at the Vietnam
rally in Washington, you can't hear him because the microphone plug is pulled.
According to Hanks, Forrest says, 'Sometimes when people go to Vietnam, they go
home to their mommas without any legs. Sometimes they don't go home at all.
That's a bad thing. That's all I have to say about that.'
tell me another one lol
>> How about this: in Castaway, to make himself look like an average, out-of-
shape, middle-aged man for the scenes in the beginning of the film, Tom Hanks
didn't exercise and allowed himself to grow pudgy. Production was then halted
for a year so he could lose 50 pounds and grow out his hair for his time spent
on the deserted island.
wait really
bro
```

give me more trivia oscar pls

>> I bet you didn't know that in Forrest Gump, when Forrest gets up to talk at the Vietnam rally in Washington, you can't hear him because the microphone plug is pulled. According to Hanks, Forrest says, 'Sometimes when people go to Vietnam, they go home to their mommas without any legs. Sometimes they don't go home at all. That's a bad thing. That's all I have to say about that.'

you said that already

more trivia

>> How about this: in The Lord of the Rings, the cast often had to fly to remote shoot locations by helicopter. But Sean Bean was afraid of flying. So, when the crew shot the scenes of the Fellowship crossing the snowy mountains, Bean would spend two hours every morning climbing from the base of the mountain to the set near the top, already dressed as Boromir. The cast and crew would pass him as they flew up.

loool

tell me one more pls

>> I bet you didn't know that in Castaway, to make himself look like an average, out-of-shape, middle-aged man for the scenes in the beginning of the film, Tom Hanks didn't exercise and allowed himself to grow pudgy. Production was then halted for a year so he could lose 50 pounds and grow out his hair for his time spent on the deserted island.

tell me new trivia

>> Here's a fun one: in Fargo, William H. Macy begged the directors for the role of Jerry Lundegaard, performing two readings for the part. When the Coen brothers didn't get back to him, Macy tracked them down in New York and told them, 'I'm very, very worried that you are going to screw up this movie by giving this role to somebody else. It's my role, and I'll shoot your dogs if you don't give it to me.' He was joking, of course.

he did not

that's messed up

joker was nominated this year right

did joker win

>> joker won Best Leading Actor and Best Original Score at the Oscars.

who won best leading actor

>> Joaquin Phoenix in 'Joker' won!

how about best leading actress

>> Renee Zellweger in 'Judy' won!

do you have a favorite scene

>> My favorite movie scene was in Up when Carl and Russell eat ice cream together

that's a good one

i liked that scene

nice bye

goodbye oscar

>> bye already? See you later!



### 3 Notes

- Phrase specificity was too rigid for some sentences - couldn't get a response without perfect syntax
- Good randomization of responses at parts
- No internal tracking of things already said in responses
- No real error-catch for non-matching phrases

### 4 Q3

One feature that would really help my implementation would be some sort of short-term conversational memory to help prevent repeated responses and allow for the responses to add prior contextualization.

### 5 Q4

As my implementation was designed to work in the domain of popular movies, I think the phrase “Rosebud” would fail most implementations, the reason being that it has a confusing literal meaning and a much richer metaphorical and referential meaning. A chatbot might understand the word and its direct reference, but not pick up on the context implied by its usage to be a *Citizen Kane* reference.

[ ]: