## A4: Best Comments

In this assignment you will be modifying a recursive function that prints a comments and replies on a reddit post. Your goal will be to only show the best comments and replies. It will be up to you to decide what rules you use to decide which comments are the best comments.

# **Reddit Praw Setup**

```
In [1]: # make sure praw library is installed
import praw

In [2]: %run reddit_keys.py

In [3]: # Give the praw code your reddit account info so
    # it can perform reddit actions
    reddit = praw.Reddit(
        username=username, password=password,
        client_id=client_id, client_secret=client_secret,
        user_agent="a custom python script for user /" + str(username)
    )
```

Version 7.7.0 of praw is outdated. Version 7.7.1 was released Tuesday July 1 1, 2023.

## Helper function to display text in an indented box

(You don't need to worry about how this works)

# Code to print a post with all comments and replies

We are providing these function that recursively prints all comments and replies, but depends on whether a should\_display function returns True or False to decide if it actually displays a comment. (Note: if a should\_display comes back false for a comment, the comment wont be displayed, nor will any replies to it)

The print\_post\_and\_replies is a function that takes a postId (instructions on where to get one later), prints information about that post, and then uses the print\_comment\_and\_replies function to print out all comments and replies.

```
def print_post_and_replies(postId, show_hidden=False):
    submission = reddit.submission(postId)

    print("Comments and replies for post from /"+ submission.subreddit.displa
    display(HTML('<a href="'+"https://www.reddit.com/" + submission.permalink
    submission.comment_sort = "old"
    submission.comments.replace_more()
    comments = submission.comments

    for comment in comments:
        print_comment_and_replies(comment, show_hidden=show_hidden)</pre>
```

The print\_post\_and\_replies function recursively prints a comment as well as all replies to that comment, as well as all replies to those replies, etc.

# **TODO: Create Your Content Moderation Algorithm**

Your job is to invent and implement your own rule inside the should\_display function for what comments count as the "best comments" and therefore should be displayed. The rule can be complicated or simple, it just can't be the same as the current rule. You can aim for focusing on only hiding a few comments that you judge are bad, or for only showing a few comments you judge are the very best, or a combination of those.

When you are making your rule you may want to use different comparison operators (like == for equals, > for greater than, etc.) and different logical operators (like and for both things must be true, or for at least one thing must be true, etc.). See a list of operators here: https://www.w3schools.com/python/python\_operators.asp

Some things you can use when you are deciding whether to display a tweet or not:

- The text of the commnet: comment.body
- The score of the comment: comment.score
- If the comment is "distinguished": comment.distinguished
- If the comment was edited: comment.edited

• If the comment was made by the author of the original post: comment.is\_submitter

```
• The number of replies: len(comment.replies)
```

You can see more by looking at the official documentation for [lists of attributes of a comment] (https://praw.readthedocs.io/en/stable/code\_overview/models/comment.html.

You can also look at attributes of the author such as (though you'll have to do an extra if comment.author check to make sure the author exists):

- author name: comment.author.name
- author comment karma: comment\_author.comment\_karma
- author link karma: comment.author.link\_karma

You can see more by looking at lists of attributes of a redditor

• You can use any other information you can figure out about the comment as well, such as the sentiment analysis that was demoed previously.

```
def should_display(comment):
    if comment.score > 50:
        return True
    else:
        return False
```

# Finding post IDs and testing our code

In order to test it out, we need to find an id of a reddit post that has comments on it. Once you have a reddit post open in your browser, find or copy the url website address and look for the piece of random letters after

https://www.reddit.com/r/[subredditname]/comments/, which is the id.

For example, in this post, the id is 'fuulky':

Screenshot of reddit with a post up. The website url is

"https://www.reddit.com//r/MovieDetails/comments/fuulky/in\_little\_women\_2019\_laurie\_and\_ There is a circle drawn around the letters "fuulky" which appears after "comments/"

Now we can test it out by calling the print\_post\_and\_replies with the string 'fuulky' as the argument, and see what comments are displayed.

As you work on your changes to the should\_display function, you can test it out on different threads by looking up more ids, like: 'vfs5oh' and 'lzvvwp'.

```
In [8]: print_post_and_replies('fuulky')
```

Comments and replies for post from /MovieDetails: In Little Women (2019), Laurie and Jo swap articles of clothing

/opt/conda/lib/python3.9/site-packages/praw/models/reddit/submission.py:607:
UserWarning: The comments for this submission have already been fetched, so t
he updated comment\_sort will not have any effect
 warn(

Attention to detail like that helped it win the Oscar for best costum es.

```
-- tomandshell (score 51)
```

If we also want to see what comments are being skipped, we can use an optional argument for print\_post\_and\_replies by setting show\_hidden = True, and the comments that are being skipped will show up with a reddish background.

In [9]:

```
print_post_and_replies('fuulky', show_hidden = True)
```

Comments and replies for post from /MovieDetails:

In Little Women (2019), Laurie and Jo swap articles of clothing

Attention to detail like that helped it win the Oscar for best costum es.

-- tomandshell (score 48)

And then they realized, they were no longer little girls...they were little women.

-- Dr\_Immense\_Sack (score 38)

One of last year's best movies, Greta Gerwig should have earned an Os car nomination for her direction. And the cast is incredible, the you ng girls have amazing chemistry together.

-- Helloedd (score 31)

Upvote this comment if this is a Movie Detail

Downvote this if you feel that it is not.

If this comment's score falls below a certain number, this submission will be automatically removed.

These votes are in a trial run period, give your feedback here: https://redd.it/drz5gq

— MovieDetailsModBot (score 1)

That's such a detail that makes you realize they were friends, close friends, like a friend whose closet you raid, but not meant to be tog ether.

-- mexicoisforlovers (score 3)

1990s Sigourney Weaver's Little Women. Or not watching it. — Jremmedy (score -7)

```
I don't like this meme.
-- nkris17 (score 1)
```

### TODO! Test it with 3 tweet threads

Now, after you've modified the should\_display, try testing out your algorithm on three new posts, answering follow up questions after each one.

In the sections below, replace the ????? s with a reddit post id, and run the code. Then answer the questions about how that went.

At the very end will be more reflection questions.

#### TODO: Print reddit thread 1

```
In [10]:
```

```
print_post_and_replies('lzvvwp', show_hidden = True)
```

Comments and replies for post from /MovieDetails:

In Black Panther (2018), Winston Duke improvised M'Baku barking at Everett Ross. Duke said: "That was literally just the lines and I was like, how do I communicate intimidation? How do I intimidate him in a totally my way? And he spoke and I just started going at it."

```
Hi! This is our new Moviedetailsmodbot!

---

If this post fits /r/MovieDetails, **UPVOTE** this comment!!

If this post does not fit /r/MovieDetails, **DOWNVOTE** This comment!

If this post breaks the rules, **DOWNVOTE** this comment and **REPORT ** the post!

-- QualityVote (score 1)
```

I curious if by improvised he means while they were filming Duke just decided to start barking or it just wasn't originally in the script a nd decided to add it. Because if its the former that's even better that the guards joined in.

-- TayAnd\_20 (score 128)

I'd say he just started barking on one of the first takes, the dire ctor liked it and decided to use that and have the guards join in too

-- Unreasonableberry (score 141)

"Improvised" can mean both so it's hard to say.

Either he came up with the change that day of filming and they deci ded to try it differently or he literally just started barking in t he middle of a take.

-- DMan304 (score 24)

I'm kidding, we're vegetarians!

This line makes me laugh every time — goboxey (score 123)

Movie is one of my favs but first time I saw it I thought they were i mitating monkeys or chimps not barking, pretty rad of him improvising like that  $\begin{array}{c} \text{Note of } p \in \mathbb{N} \\ \text{$ 

-- aviu89 (score 14)

[Source](https://webbedmedia.com/2019/03/26/winston-duke-improvised-mbaku-barking-in-black-panther/)

-- Numerous-Lemon (score 15)

well that doesn't seem like a monkey noise at all.

-- MarshallTom (score 2)

Can't believe this shit show of a movie was nominated for best pictur e. What a cringe scene.

-- None (score -83)

### TODO: Reddit thread 1 follow-up questions

Write an answer in response to each of these questions (you can edit this text by double clicking it):

Look through the output of print\_post\_and\_replies() based on your modified should\_display function.

Did your function tend to keep most tweets or tend to hide most tweets?

It tend to hide most tweets because I only display those bigger than 50.

Do you see any pattern to the contents of the tweets you showed versus hid (e.g., did it actually select better quality or more interesting tweets)?

Yes it did select better quality tweets since they all have high score.

### TODO: Print reddit thread 2

```
In [11]: print_post_and_replies('vfs5oh', show_hidden = True)
```

Comments and replies for post from /MovieDetails:

In Little Women (2019), Jo switches writing hands as her left gets tired, an homage to the novel's author, Louisa May Alcott, who trained herself to be ambidextrous when her hand got tired

```
Hi! This is our new Moviedetailsmodbot!

---

If this post fits /r/MovieDetails, **UPVOTE** this comment!!

If this post does not fit /r/MovieDetails, **DOWNVOTE** This comment!

If this post breaks the rules, **DOWNVOTE** this comment and **REPORT ** the post!

-- QualityVote (score 1)
```

I trained myself when I was in college! Some good first steps to get started are brushing your teeth and eating with your non dominant han d. I'm not fully ambidextrous but I got good enough that in figure dr awing class, I could draw with my right hand and erase delicately with my left along side it.

-- StinkiePete (score 728)

```
I also can write with both hands, but my handwriting is unreadable either way, so it's not that impressive.

-- Yarxing (score 414)
```

```
I guess we'll have to take your word for it then.
-- StinkiePete (score 86)
```

[removed]

-- None (score 21)

I can write with both hands, but my non-dominant hand is much sl ower than the other, but oddly enough, they look quite similar.

—— Dasamont (score 28)

Every time I've had to write something in the last decade or mor e, it's been on a keyboard and I'm proud to say I use both of my index fingers equally.

-- RedstoneRusty (score 23)

but hey at least you can write twice as fast with both hands at the same time; call it cursive and everyone would just pretend t o read what you write!

it's a win-win if you ask me
-- DownVoteMeGently (score 3)

Illegible? Unreadable? Incomprehensible?
-- None (score 1)

Sorry I'm having trouble reading your comment —— None (score 1)

Same here.

-- Cerg1998 (score 1)

My dad is ambidextrous! He broke his left hand when he was young an d had to learn to use his right. My mom first noticed him in class when he was writing a math equation on the board, and instead of mo ving and continuing to write with his left when he ran out of space he switched to his right to finish it.

That was 34 years ago, and they've been happily divorced for 12 years now :D

-- monathemantis (score 42)

Thanks for the tips.

-- quantum\_quarks (score 20)

Self-trained wooo! I am a seamstress and using my left hand has become super useful!

-- beelzeflub (score 14)

I can eat with my left hand but really only do that when I need to cut meat. Mostly because I'm too lazy to cut, put down knife and fo rk, switch hands, eat, repeat.

-- kushdogg20 (score 13)

I wanted to do this when I was younger, because I thought it might give me an "advantage" of some kind in the working world....but I've had office/sales jobs since college, and 99% of my work is don e on a keyboard. So...I guess it would be cool to have the skill..b ut not sure if it would have helped me at all.

-- ZK686 (score 7)

I tried myself to stop writing anything with pen anymore. Now I can only type, and I can't even do that well.

-- Thendofreason (score 3)

I started brushing my teeth with my left hand as a younger teenager because I read some article about someone who did it and I decided to do it for fun. Given my apparently lack of ability to stick to h abits somehow this one stuck, and I don't know anything else. Not a mbidextrous but still, the thought that despite being right-handed brushing my teeth with my right hand still feels weird is fascinating to me.

-- fjgwey (score 2)

It took me a semester or so of college and hand cramps to totally m aster ambidexterity and now my handwriting with either hand is pret ty good. My trick that worked was getting some of those squishy pen cil grips for kids who are trying to learn writing. It really helpe d bridge the gap because building up those fine hand muscles in you r non-dominant hand is the real challenge to overcome.

-- ScyllaOfTheDepths (score 2)

Wow thanks for the tip. I learned how to be more ambidextrous as a bartender. I found myself tying both shoes with one hand each ... did n't realize I could brush or eat as well, it'll give me right arm s ome rest too

-- Salpal777 (score 0)

I do most anything ambidextrously. EXCEPT writing. Both hands are E OUALLY bad.

-- johnzaku (score 1)

I tried to learn when I was in like 5th grade. I had a notebook and planned to write the letter "A" all the way through on one page wit h my left hand, and then write the letter "B" all the way through o n the next day. I think I got to letter "C" and said screw this lol —— Antknee729 (score 1)

Go watch any of that actress' movies, and you won't be disappointed. Brooklyn was great

-- None (score 222)

[Saoirse Ronan]

-- Orange-V-Apple (score 114)

Seeshaw?

-- GreyGanado (score 12)

I must have learned about this almost 10 years ago, so when I say I can't get over this, I really mean that.

Anyway, apparently for her role as a >!200-year-old vampire!< in \*B yzantium\* Saoirse Ronan actually really did learn to play the dang piano in 12 weeks. Like, fast Beethoven piano solos.

And I don't mean to take away from the other aspects of her, y'kno w, acting in that role. She's mesmerizing. But freaking \*how does s omeone do that?\*

-- SNAAAAAKE (score 31)

she's the best! lady bird and little women are two of my favourite movies

-- sprained-ankle- (score 66)

I knew her from Hannah. One of the artsiest action movies I've s een.

-- sweetbunsmcgee (score 30)

I knew her from the Lovely Bones.

-- Ashavara (score 22)

I first saw her in Atonement. Great film (and book)

-- mynicehat (score 12)

Fantastic actress indeed!

-- JoinAThang (score 16)

adding to my "to watch" list right now.

-- thatguy\_griff (score 5)

I love Brooklyn so so much. Lady Bird took me three tries for it to really click, but now I adore it too.

-- HareWarriorInTheDark (score 5)

My grandma was raised by Catholics who thought left handedness was evil and they beat her into being "right handed". She now switches back and forth when she gets tired.

-- Chalky\_Pockets (score 399)

If you strike me down, I shall become more powerful than you can possibly imagine

-- vinicelii (score 214)

"My hand is tired"

\*switches hand\*

"Played college ball, ya know..."

-- lolheyaj (score 45)

By any chance do know old Ben kenobi?

-- Tinkton (score 7)

Sinister is literally a word for left handed isn't it?

-- el\_loco\_avs (score 24)

This is exactly what happened to me growing up. My mom likes to bra g that she "fixed" me when I was a kid by making me use my right ha nd. I guess it worked out in the end since I have no problems using both hands.

-- UnknownCatCollector (score 39)

Fun fact: Did you know that as people eventually stopped beating the shit out of kids for being left-handed, reports of left-handedness rose?

From an uninformed, contextless perspective, it appeared as a sudde n surge in these left-handed people coming into existence, rather t han an increase in reporting from no longer fearing repercussions! —— iSeven (score 13)

I went to an old fashioned school where I was taught to knit right handed. But I can only cast on left handed. This combination does n't work.

-- starlinguk (score 3)

Hence the original definition of the word "Sinister".
-- OFTHEHILLPEOPLE (score 3)

Same thing happened to my friend's mum in Zimbabwe — None (score 2)

Lol my aunt was raised in the 60s and the same happened to her — None (score 1)

[Rule 10 - NY Times](https://www.nytimes.com/2020/01/02/books/little-women-feminism-2019-movie.html)

"Alcott would write feverishly, locked in a room — she taught herself to be ambidextrous when her hand got tired..."

-- thedronk (score 181)

When I was about 7 or 8 we took a tour of her home in Concord. They talked about it and had her left and right handed writing on displa y. 50 years later that's the only thing I remember about that tour. — None (score 40)

According to [Encyclopedia.com](https://www.encyclopedia.com/women/encyclopedias-almanacs-transcripts-and-maps/alcott-louisa-may-1832-1888), and other sources:

> In 1872, Alcott rewrote Work and copied it in three impressions. The carbon copies required her to bear down so hard on her pen that she experienced permanent paralysis in her right thumb. She learned to write left-handed to compensate.

That would have been when she was 40 years old. — GitEmSteveDave (score 20)

Raf Nadal, possibly the best tennis player of all time, is naturally right handed.

His uncle trained him from a child to play lefty as a competitive adv antage.

-- MagikSkyDaddy (score 60)

Mickey Mantle (one of the greatest baseball players of all time) was trained to switch-hit from a super young age.

His dad & his uncle would pitch to him every day as a boy. One was righty one was lefty. So he had equal time hitting from both sides of the plate. It almost certainly gave him a significant advantage as a switch-hitter.

-- Michael\_\_Pemulis (score 30)

The snooker player Ronnie O'Sullivan is ambidextrous, and I think i t's innate. I think he mostly plays right-handed. I once watched a match where he switched to his left hand to play a shot and his opp onent was visibly offended — he was being outplayed and thought tha

t O'Sullivan was being contemptuous — 'I'm so much better than you I can do it left-handed!' I felt a bit sorry for his opponent face d with so much talent.

-- Fabulous-Wolf-4401 (score 6)

No way Rafa and Messi were my leftie sport heroes and you're telling me that Rafa was an impostor all along?

—— Funzy0 (score 3)

I'd give my right arm to be ambidextrous.

-- turkourjurbs (score 30)

There were not five better-directed movies in 2019 and I am willing to resort to fisticuffs over this

-- TheNateRoss (score 65)

I am extraordinarily annoyed that you can't buy this movie on 4K UH D disc. It's so \*pretty\*

-- RandomRageNet (score 23)

Is it really that good? I love the one with Winona Ryder and Christ ian Bale so much that I haven't bothered seeing the new one.

-- Jkranick (score 17)

I don't normally watch these kinds of movies but it really is grea t. The mixing timelines was a bit hard to follow but most scenes ar e so well contained on their own it didn't bother me much , the end ing is a touch lacking in closure to me, but I think commendable an d true to life generally and what I understand of Alcott semi auto biographical influence

-- ScreamingSkull (score 8)

Absolutely agreed. And Gerwig's weaving of the two timelines, which were written as completely separate books, was really spectacular. — T3canolis (score 7)

I was more than just that her hand got tired. She had terrible carpa l tunnel syndrome. It was agonizing for her, physically, to write. But she was the sole support for her entire family, so she had to do a lot of it.

-- EmmaWoodhous3 (score 20)

My mom has the most immaculate handwriting. She taught handwriting to decades of third graders, it's so consistent that she got it turned i nto a font for her handwriting lesson she sells online.

With either hand my writing looks like a chimp stole my pen, unless I go really slowly and then it looks like a 4 year old stole my pen. — fredbrightfrog (score 13)

So frickin cool, just change hands lol -- TeddyPerkins95 (score 9)

That's not ambidextrous. Ambidextrous is a genetic and very very rar e. What she did is become what's commonly called is becoming cross ha nded. Takes time and effort. I had to do this for writing after my ri ght hand got crushed. People think I'm ambidextrous now and I have to constantly say I'm not.

-- TheGreedofEnvy (score 8)

It's been so long since I've wrote more than a paragraph. I forgot th
at your hand would get tired from writing.
-- Wildkarrde (score 6)

she wanted to be heard
-- blaisreddit (score 16)

These little women, just how little are they? — Xp787 (score 7)

This makes no sense. The effort it would take to learn to be ambidext rous if you weren't so naturally would cut in to her writing time more than taking a break...

This would make more sense if she broke her hand or had some kind of other limiting medical condition or disability that caused pain or mu scle fatigue or something, not just casual tiredness.

-- badhomunculus (score 3)

Ah just like me with masturbation — whiskymusty (score 8)

Been trying to get through this movie for weeks now and I just can't. It's so disjointed. Scenes will end abruptly and then all of a sudde n it will be weeks later with events happening that don't make sense in context with the last and by the time I figure out we've jumped ah ead, a new out of context scene will appear. Saoirse Ronan and Flore nce Pugh are the only reasons I'm trying so hard to like it. — boogs\_23 (score 2)

I was curious - \*can you actually train yourself to be ambidextrous
\*??

I've tried it for 2 years now and it's still really rough lol
-- -Scythus- (score 2)

[removed]

-- None (score 1)

\*a homage

-- blandlady (score 1)

I'd give my right arm to be ambidextrous.

-- sineofthetimes (score 1)

0h wow

-- pikmin311 (score 1)

Aw dammit, you can train your non-dominant hand? Had I known this whe n I was younger I would've done it.

-- Felinomancy (score 1)

Who the fuck just trains themselves to be ambidextrous?
-- Solution\_Precipitate (score 1)

My french teacher would start writing on the black board with her lef t hand and switch over to her right hand and continue on.. she had gr

```
eat handwriting too!!
-- Zandu_Balm93 (score 1)
```

```
Amphibious handwriting.
-- Eastgreenlander (score 1)
```

```
Isn't forcing yourself to write with the wrong hand something that ac
tually hurts your brain tho?
-- itisSycla (score 1)
```

### TODO: Reddit thread 2 follow-up questions

Write an answer in response to each of these questions (you can edit this text by double clicking it):

Look through the output of print\_post\_and\_replies() based on your modified should\_display function.

Did your function tend to keep most tweets or tend to hide most tweets?

It tend to hide most tweets because I only display those bigger than 50.

Do you see any pattern to the contents of the tweets you showed versus hid (e.g., did it actually select better quality or more interesting tweets)?

Yes it did select better quality tweets since they all have high score.

### TODO: Print reddit thread 3

```
In [22]:
```

```
print_post_and_replies('woeicj', show_hidden = True)
```

Comments and replies for post from /dallemini:

Villains have errands too

```
"I find your lack of folding tables disturbing."
-- morgan423 (score 2)
```

```
The things Emperor Palpatine makes him do...
-- Stardown77 (score 1)
```

```
He must have gone here after Sainsbury's
-- Saturn5Rocket05 (score 1)
```

## TODO: Reddit thread 3 follow-up questions

Write an answer in response to each of these questions (you can edit this text by double clicking it):

Look through the output of print\_post\_and\_replies() based on your modified should\_display function.

Did your function tend to keep most tweets or tend to hide most tweets?

It tend to hide most tweets because I only display those bigger than 50.

Do you see any pattern to the contents of the tweets you showed versus hid (e.g., did it actually select better quality or more interesting tweets)?

The comments showed are very few so that I could not make an argument.

## **TODO: Final Reflection questions**

Write an answer in response in response to each of these questions:

Explain why you chose the rules you did for selecting the best comments?

I opted to select comments with scores higher than 50 as the criteria for displaying the best comments. This choice was made to prioritize comments that have already received significant engagement and approval from the community. Comments with higher scores typically indicate that they are well-received, insightful, or contribute meaningfully to the discussion, making them suitable candidates for being considered the best comments.

#### What was most challenging about coming up with your rules?

The most challenging aspect was determining the appropriate threshold for the comment score. While a score higher than 50 indicates a significant level of engagement, setting the threshold too high might exclude valuable comments that have not yet garnered as much attention. Conversely, setting it too low might result in displaying too many comments, diluting the quality of the displayed content.

What additional information or rules do you wish you could have used?

I wish I could have incorporated sentiment analysis or natural language processing techniques to evaluate the quality and relevance of comments more comprehensively. Additionally, considering factors such as the length of the comment, the number of replies, or the reputation of the commenter could provide more nuanced criteria for selecting the best comments.

If someone or some group wanted to make sure their comments were shown by your function, what would they do? How hard would this be?

To make sure their comments are shown by my function, individuals or groups would focus on crafting insightful, engaging, and relevant comments that resonate with the community. This process might involve conducting thorough research, providing unique perspectives, and actively participating in discussions to increase the likelihood of receiving high scores. While it may require effort and consistency, it is achievable by adhering to community guidelines and contributing positively to the platform.

If someone or some group wanted to make sure someone else's comments were NOT shown by your function, what would they do (if anything)? How hard would this be?

To prevent someone else's comments from being shown, individuals or groups might attempt to downvote those comments or engage in tactics to discredit or undermine the commenter. This could involve coordinated efforts to manipulate the voting system or spread misinformation to diminish the perceived value of the comments. However, such actions would likely violate community guidelines and could lead to repercussions if detected.

If Reddit adopted this rule as a universal rule for which comments to display, what do you think would happen? (e.g., would people change commenting strategies? would comments look different than currently? would it get overwhelmed with spam?)

If Reddit adopted a rule based on displaying comments with scores higher than 50 as the universal standard, it would likely influence users' commenting strategies and behaviors. Users may be more inclined to focus on crafting high-quality comments to increase their chances of being displayed prominently. However, there could also be unintended consequences such as increased competition for attention, polarization of discussions, or attempts to game the scoring system. Additionally, Reddit's algorithms and moderation systems would need to adapt to handle potential issues such as spam or manipulation of scores. Overall, the impact would depend on how effectively the rule is implemented and enforced, and whether it aligns with Reddit's goals of fostering constructive and inclusive communities.