

# stat29000project03solutions

February 14, 2020

## 1 STAT29000 Project 3 Solutions

### 1.1 Question 1

```
[1]: import media
      # I see a message that says "You've successfully imported the media library."
```

Successfully loaded the media library.

```
[2]: from media.rottentomatoes.utilities import search

      print(search.__doc__)
      search('harry', 'potter')
      hp = ('harry', 'potter',)
      search(*hp).head()
```

Return dataframe where all of the provided words are found in the movie title in the pre-loaded movies dataset. Case insensitive.

```
[2]:          rotten_tomatoes_link \
7111      /m/harry_potter_and_the_chamber_of_secrets
7112      /m/harry_potter_and_the_deathly_hallows_part_1
7113 /m/harry_potter_and_the_deathly_hallows_part_2...
7114      /m/harry_potter_and_the_goblet_of_fire
7115      /m/harry_potter_and_the_half_blood_prince

          movie_title \
7111      Harry Potter and the Chamber of Secrets
7112 Harry Potter and the Deathly Hallows - Part 1
7113 Harry Potter and the Deathly Hallows - Part 2
7114      Harry Potter and the Goblet of Fire
7115      Harry Potter and the Half-Blood Prince

          movie_info \
```

7111 Youthful wizard Harry Potter returns to the sc...  
 7112 The first installment of the two-film adaptati...  
 7113 Harry Potter and the Deathly Hallows - Part 2,...  
 7114 Directed by Mike Newell, the fourth installmen...  
 7115 Adolescent wizard-in-training Harry Potter ret...

critics\_consensus \

7111 Though perhaps more enchanting for younger aud...  
 7112 It can't help but feel like the prelude it is,...  
 7113 Thrilling, powerfully acted, and visually daz...  
 7114 The main characters are maturing, and the film...  
 7115 Dark, thrilling, and occasionally quite funny,...

poster\_image\_url rating \

7111 <https://resizing.flixster.com/kUlHillwfm3Nzhcc...> PG  
 7112 <https://resizing.flixster.com/k3WaCWBtGfgz2R7b...> PG-13  
 7113 <https://resizing.flixster.com/4YKvh7MMtBmpFVHu...> PG-13  
 7114 [https://resizing.flixster.com/3RSZ6CbXm2kC2\\_bD...](https://resizing.flixster.com/3RSZ6CbXm2kC2_bD...) PG-13  
 7115 [https://resizing.flixster.com/19rGgcqHg\\_VCzeJR...](https://resizing.flixster.com/19rGgcqHg_VCzeJR...) PG

genre directors \

7111 Kids & Family, Science Fiction & Fantasy Chris Columbus  
 7112 Action & Adventure, Drama, Kids & Family, Myst... David Yates (II)  
 7113 Action & Adventure, Drama, Kids & Family, Myst... David Yates (II)  
 7114 Action & Adventure, Kids & Family, Science Fic... Mike Newell  
 7115 Action & Adventure, Drama, Kids & Family, Myst... David Yates (II)

writers cast ... \

7111 Steve Kloves Daniel Radcliffe, Emma Watson, Rupert Grint, J... ...  
 7112 Steve Kloves Daniel Radcliffe, Emma Watson, Rupert Grint, H... ...  
 7113 Steve Kloves Daniel Radcliffe, Rupert Grint, Emma Watson, H... ...  
 7114 Steve Kloves Daniel Radcliffe, Rupert Grint, Emma Watson, R... ...  
 7115 Steve Kloves Daniel Radcliffe, Emma Watson, Rupert Grint, T... ...

studio\_name tomatometer\_status tomatometer\_rating \

7111 Warner Bros. Pictures Certified Fresh 83  
 7112 Warner Bros. Pictures Certified Fresh 77  
 7113 Warner Bros. Pictures Certified Fresh 96  
 7114 Warner Bros. Pictures Certified Fresh 88  
 7115 Warner Bros. Pictures Certified Fresh 83

tomatometer\_count audience\_status audience\_rating audience\_count \

7111 235 Upright 80.0 1150581.0  
 7112 276 Upright 85.0 351353.0  
 7113 329 Upright 89.0 391222.0  
 7114 253 Upright 74.0 34153607.0  
 7115 276 Upright 78.0 1558838.0

	audience_top_critics_count	audience_fresh_critics_count \
7111	53	194
7112	54	213
7113	58	316
7114	52	222
7115	59	230

	audience_rotten_critics_count
7111	41
7112	63
7113	13
7114	31
7115	46

[5 rows x 23 columns]

```
[3]: from media.rottentomatoes import utilities

print(utilities.search.__doc__)
utilities.search('harry', 'potter')
hp = ('harry', 'potter',)
utilities.search(*hp).head()
```

Return dataframe where all of the provided words  
are found in the movie title in the pre-loaded movies  
dataset. Case insensitive.

```
[3]: rotten_tomatoes_link \
7111 /m/harry_potter_and_the_chamber_of_secrets
7112 /m/harry_potter_and_the_deathly_hallows_part_1
7113 /m/harry_potter_and_the_deathly_hallows_part_2...
7114 /m/harry_potter_and_the_goblet_of_fire
7115 /m/harry_potter_and_the_half_blood_prince

movie_title \
7111 Harry Potter and the Chamber of Secrets
7112 Harry Potter and the Deathly Hallows - Part 1
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movie_info \
7111 Youthful wizard Harry Potter returns to the sc...
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 7112 https://resizing.flixster.com/k3WaCWBtGfgz2R7b... PG-13  
 7113 https://resizing.flixster.com/4YKvh7MMtBmpFVHu... PG-13  
 7114 https://resizing.flixster.com/3RSZ6CbXm2kC2\_bD... PG-13  
 7115 https://resizing.flixster.com/19rGgcqHg\_VCzeJR... PG

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7113	13
7114	31
7115	46

[5 rows x 23 columns]

```
[4]: from media.rottentomatoes import utilities as utils

print(utils.search.__doc__)
utils.search('harry', 'potter')
hp = ('harry', 'potter',)
utils.search(*hp).head()
```

Return dataframe where all of the provided words are found in the movie title in the pre-loaded movies dataset. Case insensitive.

```
[4]:                                     rotten_tomatoes_link \
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                                     movie_title \
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7111	41
7112	63
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7115	46

[5 rows x 23 columns]

## 1.2 Question 2

```
[5]: from media.rottentomatoes import datasets as ds
```

```
[6]: # note that the function signature:
# def get_cast(id: str):
# may look odd. this is called type hinting
# and can be useful for IDE's, type checkers, and linters
# to make sure you aren't passing something with the wrong
# type.
def get_cast(id: str):

    cast = ds.movies.loc[ds.movies['rotten_tomatoes_link']==id,'cast']
    if cast.empty:
        return ()
    else:
        return tuple(actor.strip() for actor in cast[0].split(","))

get_cast("/m/0814255")[1:10]
```

```
[6]: ('Brandon T. Jackson',
      'Alexandra Daddario',
      'Jake Abel',
      'Sean Bean',
      'Pierce Brosnan',
      'Steve Coogan',
      'Rosario Dawson',
      'Melina Kanakaredes',
      'Catherine Keener')
```

```
[7]: def get_cast(ids):
    cast = ds.movies.loc[ds.movies['rotten_tomatoes_link'].isin(ids),'cast']
    if cast.empty:
```

```

        return ()
    else:
        # combines results into one giant comma separated string
        combined = ','.join([actor for actor in cast])
        return tuple(actor.strip() for actor in combined.split(","))

get_cast("/m/0814255", "/m/10")
get_cast(["/m/0814255", "/m/10"])

# won't work, look at type()
# get_cast("/m/10")
type(('test'))

# will work, look at type()
get_cast("/m/10",)
type(('test',))

```

[7]: tuple

```

[8]: def get_cast(*ids):
    cast = ds.movies.loc[ds.movies['rotten_tomatoes_link'].isin(ids), 'cast']
    if cast.empty:
        return ()
    else:
        # combines results into one giant comma separated string
        combined = ','.join([actor for actor in cast])
        return tuple(actor.strip() for actor in combined.split(","))

get_cast("/m/0814255", "/m/10")
get_cast(*("/m/0814255", "/m/10"))
first, second, *rest = get_cast("/m/0814255")

print(first)
print(second)
print(rest)

```

Logan Lerman

Brandon T. Jackson

['Alexandra Daddario', 'Jake Abel', 'Sean Bean', 'Pierce Brosnan', 'Steve Coogan', 'Rosario Dawson', 'Melina Kanakaredes', 'Catherine Keener', 'Kevin Mckidd', 'Joe Pantoliano', 'Uma Thurman', 'Ray Winstone', 'Julian Richings', 'Bonita Friedericy', 'Annie Ilonzeh', 'Tania Saulnier', 'Marie Avgeropoulos', 'Luisa D'Oliveira', 'Christie Laing', 'Marielle Jaffe', 'Elisa King', 'Chrystal Tisiga', 'Alexis Knapp', 'Charlie Gallant', 'Chelan Simmons', 'Andrea Brooks', 'Natassia Malthe', 'Max Van Ville', 'Serinda Swan', 'Dimitri Lekkos', 'Ona Grauer', 'Stefanie von Pfetten', 'Conrad Coates', 'Erica Cerra', 'Dylan Neal', 'Luke Camilleri', 'Holly Hougham', 'Ina Geraldine', 'Raquel Riskin', 'Yusleidis



```
Oquendo', 'Janine Edwards', 'Valerie Tian', 'Violet Columbus', 'Sarah Smyth',
'Merritt Patterson', 'Julie Luck', 'Andrea Day', 'John Stewart', 'Suzanne
Ristic', 'Deejay Jackson', 'Matthew Garrick', 'Stan Carp', 'Suzanna Ristic',
'Richard Harmon', 'Maria Olsen', 'Robin Lemon', 'Doyle Devereux', 'Tom Pickett',
'VJ Delos-Reyes', 'Tim Aas', 'Keith Dallas', 'Spencer Atkinson', 'Maya
Washington', 'Loyd Bateman', 'Victor Ayala', 'Zane Holtz', 'Eli Zagoudakis',
'Matt Reimer', 'Rob Hayter', 'Lloyd Bateman', 'Shawn Beaton', 'Jarod Joseph',
'Reilly Dolman', 'Paul Cummings', 'Julie Brar', 'Dejan Loyola', 'Damian Arman',
'Mario Casoria', 'Dorla Bell', 'Carolyn Adair (II)', 'Jade Pawluk', 'G. Patrick
Currie', 'Darian Arman', 'Mariela Zapata', 'David L. Smith']
```

```
[9]: def cast_in_common(*ids):
      result = set.intersection(*tuple(set(get_cast(id)) for id in ids))
      return tuple(result)

cast_in_common("/m/harry_potter_and_the_chamber_of_secrets", "/m/
↳harry_potter_and_the_goblet_of_fire")
cast_in_common("/m/harry_potter_and_the_chamber_of_secrets", "/m/
↳harry_potter_and_the_goblet_of_fire", "/m/beauty_and_the_beast_2017")
```

```
[9]: ('Emma Watson',)
```

### 1.3 Question 3

```
[10]: def get_reviews(id: str):
      reviews = ds.reviews.loc[ds.
↳reviews['rotten_tomatoes_link']==id, 'review_content']

      if reviews.empty:
          return ()
      else:
          return tuple(reviews.to_list())

get_reviews("/m/harry_potter_and_the_goblet_of_fire")[1:10]
```

```
[10]: ('For the first time, the stakes of this battle of good and evil become
painfully evident.',
'It feels rushed and there are definitely the most plotheoles in this entry in
the series. Still, when it does work it really works.',
'Goblet of Fire is great, very watchable and re-watchable.',
'The adolescent subplot is treated sweetly by Newell. The awkward dances and
dating faux pas at the school ball feel like additions from some other, less
mythic series, and form a welcome respite from the intense magic-making of the
rest of the film.',
'Where Newell really scores is in taking a leaf out of Peter Jackson's book and
cranking up the fear factor.',
```

"All in all, Goblet of Fire is certainly the best Potter yet, with most of the cast doing their roles justice, some great direction and Steven Kloves' screenplay makes the core of Rowling's novel into a fast-paced but easily-comprehensible enjoyable movie.",

'The acting is stronger than ever in this fourth installment.',

'For those like me who are outside but sympathetic to the faith, it looks like another handsomely made, good-natured and high-spirited family movie, which is dramatically stymied through being locked within school grounds.',

'In its last third, The Goblet of Fire builds to a climax of such overpowering dread that you might just forget the rest. Harry grows up in an instant, and the film does, too.'

```
[11]: def get_polarizing():
        return ds.movies[(ds.movies['tomatometer_count']>20) & (abs(ds.
        ↪movies['tomatometer_rating'] - ds.movies['audience_rating']) >= 20)]

get_polarizing().head()
```

```
[11]:          rotten_tomatoes_link          movie_title \
1              /m/0878835          Please Give
5              /m/10000_bc          10,000 B.C.
12             /m/10002516-lost_city          The Lost City
15  /m/10002635-bridge_of_san_luis_rey  The Bridge of San Luis Rey
25      /m/10004209-tristan_and_isolde          Tristan & Isolde

          movie_info \
1  Kate has a lot on her mind. There's the ethics...
5  A young outcast from a primitive tribe is forc...
12 Andy Garcia stars and makes his directorial de...
15 Thornton Wilder's award-winning novel is given...
25 In the medieval legend of Tristan and Isolde, ...

          critics_consensus \
1  Nicole Holofcener's newest might seem slight i...
5  With attention strictly paid to style instead ...
12 Its heart is in the right place, but what star...
15 Despite an all-star cast and some impressive v...
25 Competent but somewhat static, Tristan & Isold...

          poster_image_url rating \
1  https://resizing.flixster.com/0AbudQ4KsB4BeXSB...      R
5  https://resizing.flixster.com/x41Imwhe6xccM0Zl...  PG-13
12 https://resizing.flixster.com/0wfhebHly_0-0kJd...      R
15 https://resizing.flixster.com/SRmoX-enarXcIyAo...      PG
25 https://resizing.flixster.com/Vq0ciJhZC1aXcP7a...  PG-13

          genre          directors \
```

1		Comedy	Nicole Holofcener
5	Action & Adventure, Classics, Drama		Roland Emmerich
12		Drama	Andy Garcia
15	Art House & International, Drama, Faith & Spir...		Mary McGuckian
25	Drama, Science Fiction & Fantasy, Romance		Kevin Reynolds

	writers \
1	Nicole Holofcener
5	Roland Emmerich, Harald Kloser
12	G. Cabrera Infante, Guillermo Cabrera Infante
15	Mary McGuckian
25	Dean Georgaris

	cast ... \
1	Catherine Keener, Amanda Peet, Oliver Platt, R...
5	Steven Strait, Camilla Belle, Cliff Curtis, Jo...
12	Andy Garcia, Dustin Hoffman, Bill Murray, Inés...
15	Gabriel Byrne, F. Murray Abraham, Kathy Bates,...
25	James Franco, Sophia Myles, Rufus Sewell, Davi...

	studio_name	tomatometer_status	tomatometer_rating \
1	Sony Pictures Classics	Certified Fresh	86
5	Warner Bros. Pictures	Rotten	8
12	Magnolia Pictures	Rotten	25
15	Fine Line Features	Rotten	4
25	20th Century Fox	Rotten	31

	tomatometer_count	audience_status	audience_rating	audience_count \
1	140	Upright	64.0	11567.0
5	148	Spilled	37.0	411087.0
12	83	Upright	64.0	25940.0
15	24	Spilled	35.0	1931.0
25	121	Upright	71.0	220945.0

	audience_top_critics_count	audience_fresh_critics_count \
1	43	121
5	36	12
12	37	21
15	13	1
25	37	38

	audience_rotten_critics_count
1	19
5	136
12	62
15	23
25	83

[5 rows x 23 columns]