streamOn

TV Show and Streaming Platform Recommendation System

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Prototype 1: https://stream-on-proto1.herokuapp.com
Prototype 2: https://stream-on-proto2.herokuapp.com
Final App: http://stream-on.herokuapp.com

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Project Prototype (P05): Final App

Improvements Statement

Write 2-3 paragraphs explaining the changes you have done since the first AND the second prototype. Organize your discussion by the 3 components IR/ML/Social.

Information Retrieval (IR):
Our information retrieval aspect has grown significantly since our last two prototypes. In our first prototype, the results were solely based on the similar tv show input for only a subset of tv shows retrieving information from their transcripts. In our second prototype, the app was retrieving information based on the similar tv show and ad hoc inputs from descriptions, reviews, and transcripts. For our final app, we have fine tuned the retrieval by have slider inputs to decide the weighting the description, reviews, transcripts, and ad hoc search, including filters like streaming platforms, years, seasons, and genre, and allowing the user to choose to input shows and keywords that they do not want in their results. Our final app also had enhanced search and better UI.

Machine Learning (ML):

We implemented relevance feedback for our machine learning component. When receiving results the user will indicate whether they found the document to be relevant or not. We will then store this information in a json file. If the percentage of users saying a result is relevant for a show is >=0.75 then the result is added as a result doc for the show, and if the percentage is less than =<0.25 then the result is added as an irrelevant doc for the show. We additionally added that at least four users must vote for a result to be sorted into either category.

We also implemented this relevance metric for free search in addition to TV show search.

We then use this dictionary of relevant and irrelevant docs for a show to power our rocchio update algorithm for Transcripts. And in addition to rocchio for the free search we implement a metric where if a show is relevant it is boosted by its relevance score and if it is irrelevant it is negatively boosted by its irrelevance search.

Social Aspect:

We started implementing our Social Aspect in our second prototype, when we started using reviews to affect our information retrieval. We had the review similarity done in the backend and then connected it to the frontend results during this milestone. The reviews tell us a lot about how people feel about the show so out of all the similarity scores that factor into the tv show similarity results, we give reviews the highest rating. Also, the final app gives the user the choice to rate each result relevant or irrelevant. This rating will then factor into the result of the search and improve the outputs for the next search.

Class concepts:

- Cosine Similarity
- Tf-idf weighting
- Jaccard Similarity (for a previous prototype)
- Inverted Index
- Rocchio
- Relevance feedback
- Edit Distance
- Tokenize
- Term-Document Matrix

list the concepts (or practices) that you learned in class and used in your project (e.g., TF-IDF, cosine, term-document matrix, Rocchio, SVD, etc.).

Qualitative Evaluation:

Example 1

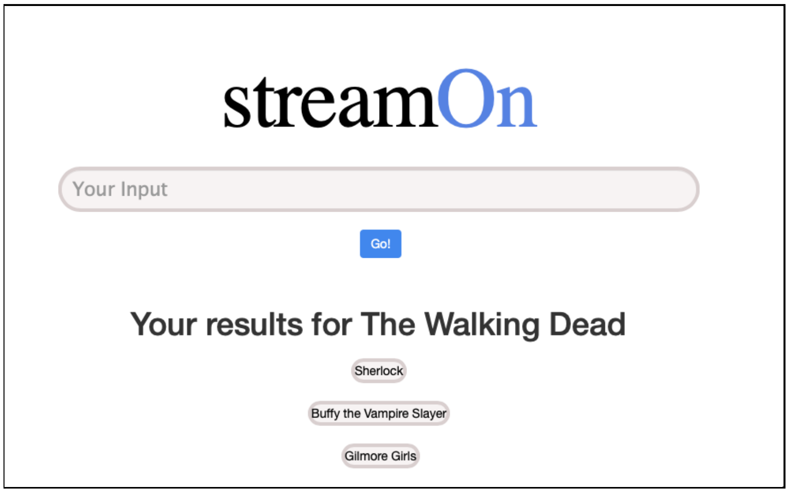
Input: TV show: The Walking Dead; **Similarity weight:** 100%

Output:

1. 'Fear the Walking Dead'
2. 'The Walking Dead: World Beyond'
3. 'Highschool of the Dead'
4. 'In the Flesh'
5. ‘Rubicon’
6. ‘Dead of Summer’'
7. 'Black Summer'
8. Z Nation
9. 'Freakish’
10. 'Mad Dogs'

Screenshot:

Prototype 1 (no weight)



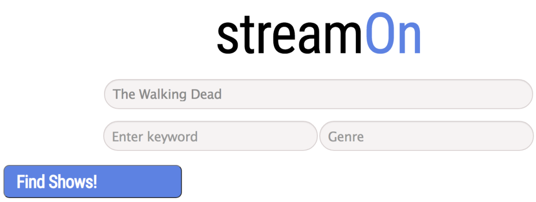
Your results for The Walking Dead

Sherlock

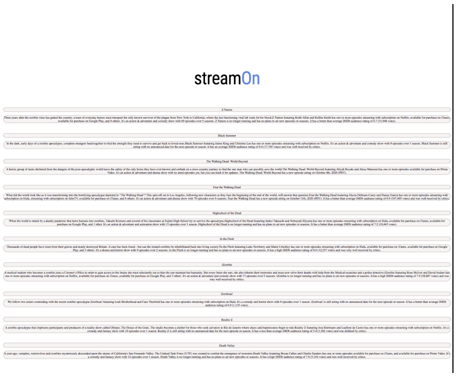
Buffy the Vampire Slayer

Gilmore Girls

Prototype 2 (no weight)



The Walking Dead



Z Nation

Three years after the zombie virus has gutted the country, a team of everyday heroes must transport the only known survivor of the plague from New York to California, where the last functioning viral lab waits for his blood.Z Nation featuring Keith Allan and Kellita Smith has one or more episodes streaming with subscription on Netflix, available for purchase on iTunes, available for purchase on Google Play, and 4 others. It's an action & adventure and comedy show with 69 episodes over 5 seasons. Z Nation is no longer running and has no plans to air new episodes or seasons. It has a better than average IMDb audience rating of 6.7 (31,948 votes).

Black Summer

In the dark, early days of a zombie apocalypse, complete strangers band together to find the strength they need to survive and get back to loved ones.Black Summer featuring Jaime King and Christine Lee has one or more episodes streaming with subscription on Netflix. It's an action & adventure and comedy show with 8 episodes over 1 season. Black Summer is still airing with no announced date for the next episode or season. It has an average IMDb audience rating of 6.4 (17,745 votes) and was well received by critics.

The Walking Dead: World Beyond

A heroic group of teens sheltered from the dangers of the post-apocalyptic world leave the safety of the only home they have ever known and embark on a cross-country journey to find the one man who can possibly save the world.The Walking Dead: World Beyond featuring Aliyah Royale and Alexa Mansour has one or more episodes available for purchase on Prime Video. It's an action & adventure and drama show with no aired episodes yet, but you can track it for updates. The Walking Dead: World Beyond has a new episode airing on October 4th, 2020 (PDT).

Fear the Walking Dead

What did the world look like as it was transforming into the horrifying apocalypse depicted in "The Walking Dead"? This spin-off set in Los Angeles, following new characters as they face the beginning of the end of the world, will answer that question.Fear the Walking Dead featuring Alycia Debnam-Carey and Danay Garcia has one or more episodes streaming with subscription on Hulu, streaming with subscription on fuboTV, available for purchase on iTunes, and 4 others. It's an action & adventure and drama show with 70 episodes over 6 seasons. Fear the Walking Dead has a new episode airing on October 11th, 2020 (PDT). It has a better than average IMDb audience rating of 6.9 (107,495 votes) and was well received by critics.

Highschool of the Dead

When the world is struck by a deadly pandemic that turns humans into zombies, Takashi Komuro and several of his classmates at Fujimi High School try to survive the apocalypse.Highschool of the Dead featuring Junko Takeuchi and Nobuyuki Hiyama has one or more episodes streaming with subscription on Hulu, available for purchase on iTunes, available for purchase on Google Play, and 1 other. It's an action & adventure and animation show with 13 episodes over 1 season. Highschool of the Dead is no longer running and has no plans to air new episodes or seasons. It has a better than average IMDb audience rating of 7.2 (10,443 votes).

In the Flesh

Thousands of dead people have risen from their graves and nearly destroyed Britain. A cure has been found - but can the treated zombies be rehabilitated back into living society?In the Flesh featuring Luke Newberry and Marie Critchley has one or more episodes streaming with subscription on Hulu, available for purchase on iTunes, available for purchase on Google Play, and 3 others. It's a drama and horror show with 9 episodes over 2 seasons. In the Flesh is no longer running and has no plans to air new episodes or seasons. It has a high IMDb audience rating of 8.0 (12,557 votes) and was very well received by critics.

iZombie

A medical student who becomes a zombie joins a Coroner's Office in order to gain access to the brains she must reluctantly eat so that she can maintain her humanity. But every brain she eats, she also inherits their memories and must now solve their deaths with help from the Medical examiner and a police detective.iZombie featuring Rose McIver and David Anders has one or more episodes streaming with subscription on Netflix, available for purchase on iTunes, available for purchase on Google Play, and 3 others. It's an action & adventure and comedy show with 71 episodes over 5 seasons. iZombie is no longer running and has no plans to air new episodes or seasons. It has a high IMDb audience rating of 7.9 (58,887 votes) and was very well received by critics.

Zombout!

We follow two sisters contending with the recent zombie apocalypse.Zomboat! featuring Leah Brotherhead and Cara Theobold has one or more episodes streaming with subscription on Hulu. It's a comedy and horror show with 6 episodes over 1 season. Zomboat! is still airing with no announced date for the next episode or season. It has a better than average IMDb audience rating of 6.9 (1,135 votes).

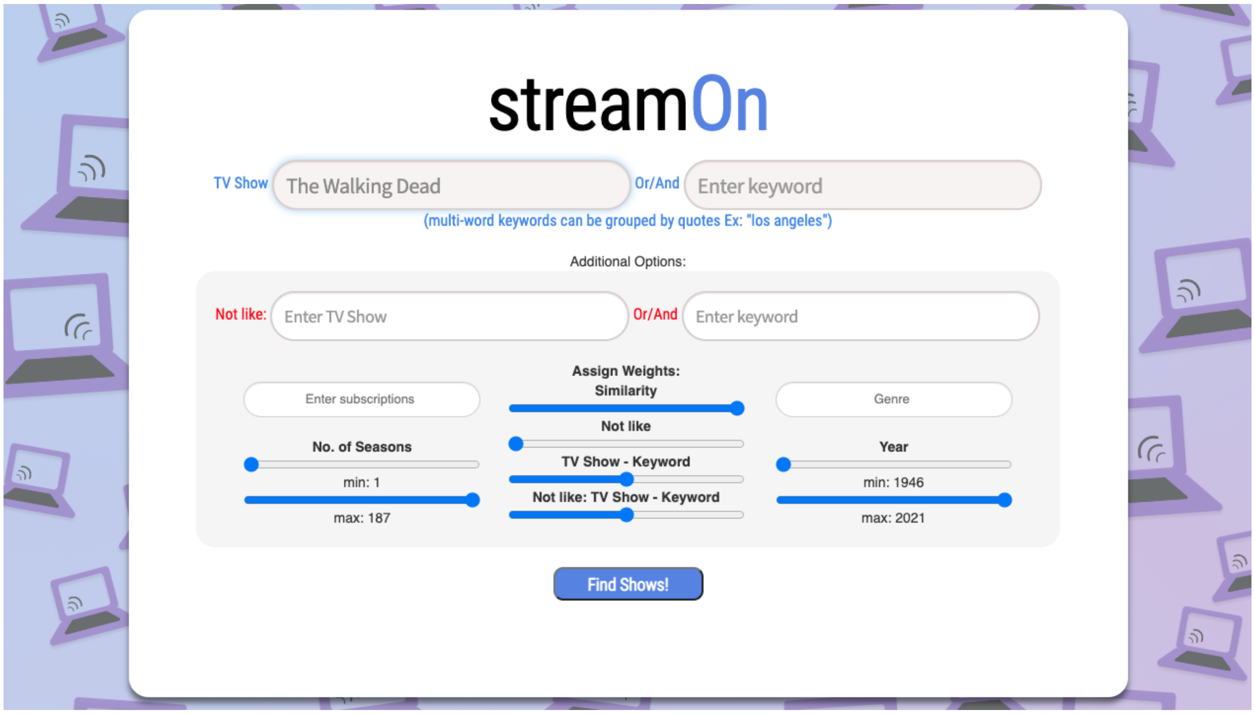
Reality Z

A zombie apocalypse that imprisons participants and producers of a reality show called Olimpo, The House of the Gods. The studio becomes a shelter for those who seek salvation in Rio de Janeiro where chaos and hopelessness begin to rule.Reality Z featuring Ana Hartmann and Luellem de Castro has one or more episodes streaming with subscription on Netflix. It's a comedy and fantasy show with 10 episodes over 1 season. Reality Z is still airing with no announced date for the next episode or season. It has a less than average IMDb audience rating of 5.4 (1,582 votes) and was disliked by critics.

Death Valley

A year ago, vampires, werewolves and zombies mysteriously descended upon the streets of California's San Fernando Valley. The Undead Task Force (UTF) was created to combat the emergence of monsters.Death Valley featuring Bryan Callen and Charlie Sanders has one or more episodes available for purchase on iTunes, and available for purchase on Prime Video. It's a comedy and fantasy show with 12 episodes over 1 season. Death Valley is no longer running and has no plans to air new episodes or seasons. It has a high IMDb audience rating of 7.8 (5,116 votes) and was well received by critics.

Final App:



streamOn

TV Show: The Walking Dead · Or/And: Enter keyword

(multi-word keywords can be grouped by quotes Ex: "los angeles")

Additional Options:

Not like: Enter TV Show · Or/And: Enter keyword

Enter subscriptions

No. of Seasons

min: 1

max: 187

Assign Weights:

Similarity

Not like

TV Show - Keyword

Not like: TV Show - Keyword

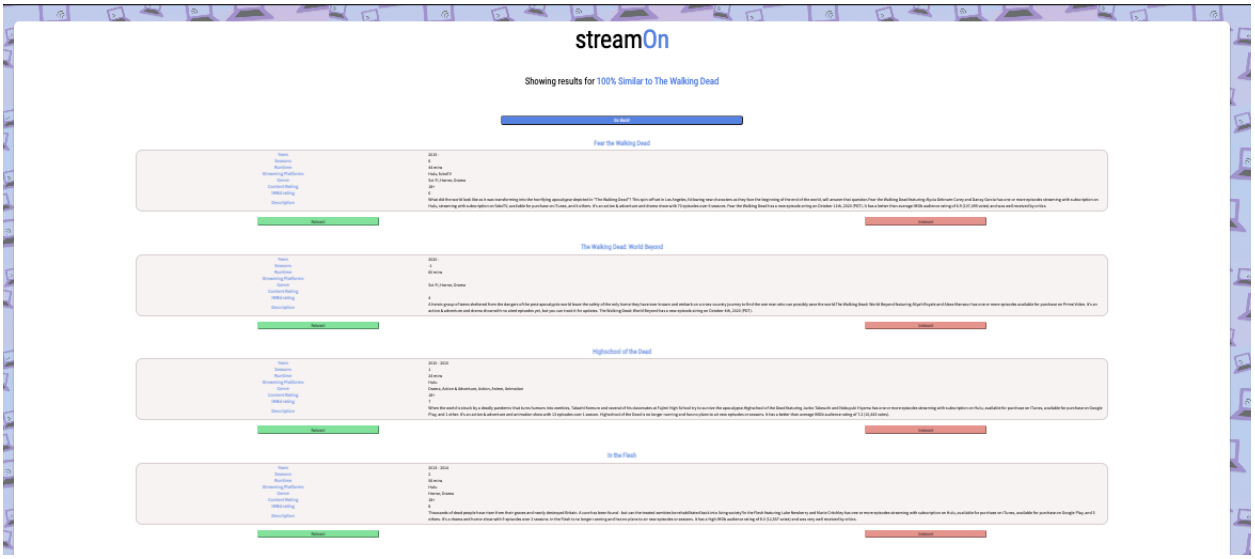
Genre

Year

min: 1946

max: 2021

Find Shows!



streamOn

Showing results for 100% Similar to The Walking Dead

Go Back!

Fear the Walking Dead

Years	2015 -
Seasons	6
Runtime	44 mins
Streaming Platforms	Hulu, fuboTV
Genre	Sci-Fi, Horror, Drama
Content Rating	18+
IMDB rating	6
Description	What did the world look like as it was transforming into the horrifying apocalypse depicted in "The Walking Dead"? This spin-off set in Los Angeles, following new characters as they face the beginning of the end of the world, will answer that question. [illegible]

Relevant · Irrelevant

The Walking Dead: World Beyond

Years	2020 -
Seasons	1
Runtime	60 mins
Streaming Platforms	
Genre	Sci-Fi, Horror, Drama
Content Rating	
IMDB rating	4
Description	A heroic group of teens sheltered from the dangers of the post-apocalyptic world leave the safety of the only home they have ever known and embark on a cross-country journey [illegible]

Relevant · Irrelevant

Highschool of the Dead

Years	2010 - 2010
Seasons	1
Runtime	24 mins
Streaming Platforms	Hulu
Genre	Drama, Action & Adventure, Action, Anime, Animation
Content Rating	18+
IMDB rating	7
Description	When the world is struck by a deadly pandemic that turns humans into zombies, Takashi Komuro and several of his classmates at Fujimi High School try to survive [illegible]

Relevant · Irrelevant

In the Flesh

Years	2013 - 2014
Seasons	2
Runtime	56 mins
Streaming Platforms	Hulu
Genre	Horror, Drama
Content Rating	18+
IMDB rating	8
Description	Thousands of dead people have risen from their graves and nearly destroyed Britain. A cure has been found [illegible]

Relevant · Irrelevant

Example 2

Input: TV show: Sherlock; **TV show Weight:** 71%; **ad-hoc:** dogs; **ad-hoc Weight:** 29%; **Similarity Weight:** 94%

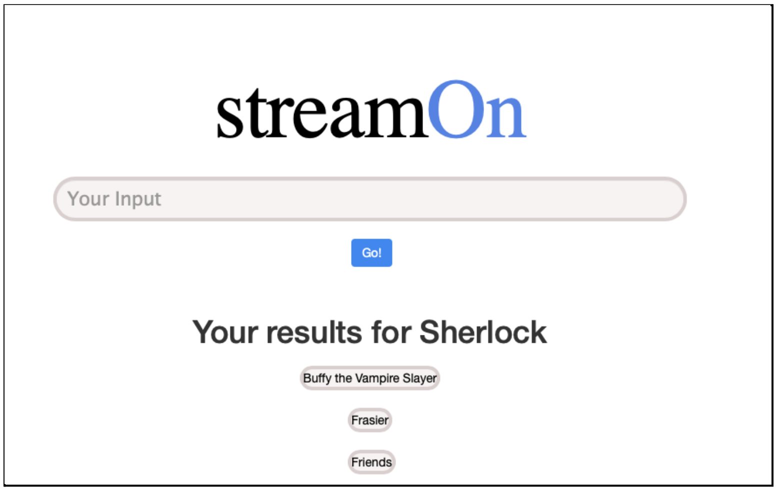
Output:

1. Harper's Island
2. Witchblade
3. Crossing Lines

4. The Innocents
5. Glitch
6. Sherlock Hound
7. Pit Bulls and Paralees
8. The Dog House
9. The Name of the Rose
10. Master of None

Screenshot:

Prototype 1 (no ad-hoc component, no weights)



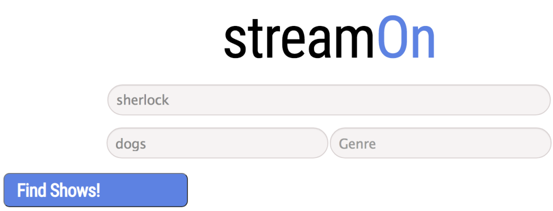
Your results for Sherlock

Buffy the Vampire Slayer

Frasier

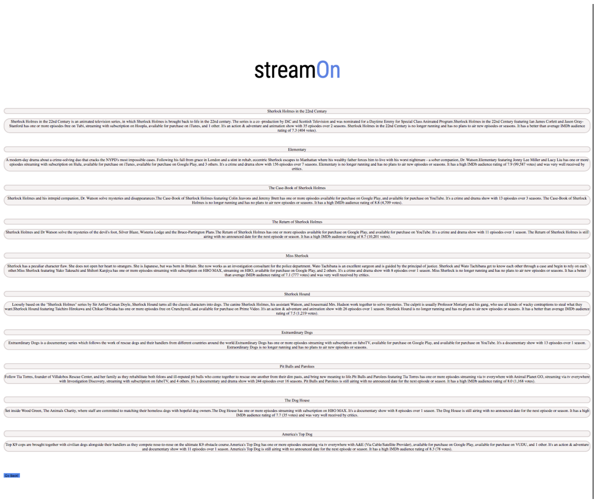
Friends

Prototype 2 (no weights)



sherlock

dogs



Sherlock Holmes in the 22nd Century

Sherlock Holmes in the 22nd Century is an animated television series, in which Sherlock Holmes is brought back to life in the 22nd century. The series is a co -production by DiC and Scottish Television and was nominated for a Daytime Emmy for Special Class Animated Program.Sherlock Holmes in the 22nd Century featuring Ian James Corlett and Jason Gray-Stanford has one or more episodes free on Tubi, streaming with subscription on Hoopla, available for purchase on iTunes, and 1 other. It's an action & adventure and animation show with 35 episodes over 2 seasons. Sherlock Holmes in the 22nd Century is no longer running and has no plans to air new episodes or seasons. It has a better than average IMDb audience rating of 7.3 (404 votes).

Elementary

A modern-day drama about a crime-solving duo that cracks the NYPD's most impossible cases. Following his fall from grace in London and a stint in rehab, eccentric Sherlock escapes to Manhattan where his wealthy father forces him to live with his worst nightmare - a sober companion, Dr. Watson.Elementary featuring Jonny Lee Miller and Lucy Liu has one or more episodes streaming with subscription on Hulu, available for purchase on iTunes, available for purchase on Google Play, and 3 others. It's a crime and drama show with 156 episodes over 7 seasons. Elementary is no longer running and has no plans to air new episodes or seasons. It has a high IMDb audience rating of 7.9 (99,587 votes) and was very well received by critics.

The Case-Book of Sherlock Holmes

Sherlock Holmes and his intrepid companion, Dr. Watson solve mysteries and disappearances.The Case-Book of Sherlock Holmes featuring Colin Jeavons and Jeremy Brett has one or more episodes available for purchase on Google Play, and available for purchase on YouTube. It's a crime and drama show with 13 episodes over 3 seasons. The Case-Book of Sherlock Holmes is no longer running and has no plans to air new episodes or seasons. It has a high IMDb audience rating of 8.8 (4,709 votes).

The Return of Sherlock Holmes

Sherlock Holmes and Dr Watson solve the mysteries of the devil's foot, Silver Blaze, Wisteria Lodge and the Bruce-Partington Plans.The Return of Sherlock Holmes has one or more episodes available for purchase on Google Play, and available for purchase on YouTube. It's a crime and drama show with 11 episodes over 1 season. The Return of Sherlock Holmes is still airing with no announced date for the next episode or season. It has a high IMDb audience rating of 8.7 (10,201 votes).

Miss Sherlock

Sherlock has a peculiar character flaw. She does not open her heart to strangers. She is Japanese, but was born in Britain. She now works as an investigation consultant for the police department. Wato Tachibana is an excellent surgeon and is guided by the principal of justice. Sherlock and Wato Tachibana get to know each other through a case and begin to rely on each other.Miss Sherlock featuring Yuko Takeuchi and Shihori Kanjiya has one or more episodes streaming with subscription on HBO MAX, streaming on HBO, available for purchase on Google Play, and 2 others. It's a crime and drama show with 8 episodes over 1 season. Miss Sherlock is no longer running and has no plans to air new episodes or seasons. It has a better than average IMDb audience rating of 7.1 (777 votes) and was very well received by critics.

Sherlock Hound

Loosely based on the "Sherlock Holmes" series by Sir Arthur Conan Doyle, Sherlock Hound turns all the classic characters into dogs. The canine Sherlock Holmes, his assistant Watson, and housemaid Mrs. Hudson work together to solve mysteries. The culprit is usually Professor Moriarty and his gang, who use all kinds of wacky contraptions to steal what they want.Sherlock Hound featuring Taichiro Hirokawa and Chikao Ohtsuka has one or more episodes free on Crunchyroll, and available for purchase on Prime Video. It's an action & adventure and animation show with 26 episodes over 1 season. Sherlock Hound is no longer running and has no plans to air new episodes or seasons. It has a better than average IMDb audience rating of 7.5 (1,219 votes).

Extraordinary Dogs

Extraordinary Dogs is a documentary series which follows the work of rescue dogs and their handlers from different countries around the world.Extraordinary Dogs has one or more episodes streaming with subscription on fuboTV, available for purchase on Google Play, and available for purchase on YouTube. It's a documentary show with 13 episodes over 1 season. Extraordinary Dogs is no longer running and has no plans to air new episodes or seasons.

Pit Bulls and Parolees

Follow Tia Torres, founder of Villalobos Rescue Center, and her family as they rehabilitate both felons and ill-reputed pit bulls who come together to rescue one another from their dim pasts, and bring new meaning to life.Pit Bulls and Parolees featuring Tia Torres has one or more episodes streaming via tv everywhere with Animal Planet GO, streaming via tv everywhere with Investigation Discovery, streaming with subscription on fuboTV, and 4 others. It's a documentary and drama show with 244 episodes over 16 seasons. Pit Bulls and Parolees is still airing with no announced date for the next episode or season. It has a high IMDb audience rating of 8.0 (1,168 votes).

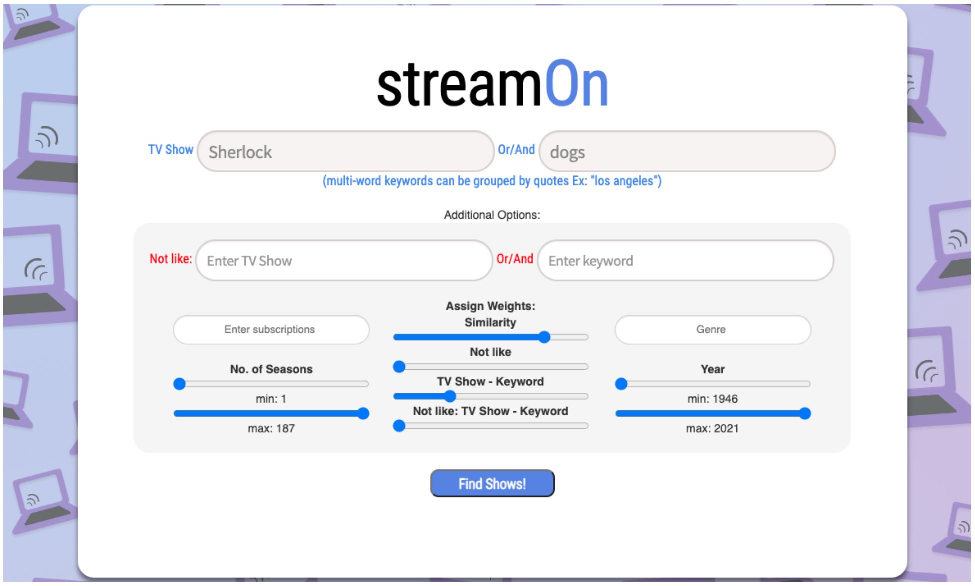
The Dog House

Set inside Wood Green, The Animals Charity, where staff are committed to matching their homeless dogs with hopeful dog owners.The Dog House has one or more episodes streaming with subscription on HBO MAX. It's a documentary show with 8 episodes over 1 season. The Dog House is still airing with no announced date for the next episode or season. It has a high IMDb audience rating of 7.7 (35 votes) and was very well received by critics.

America's Top Dog

Top K9 cops are brought together with civilian dogs alongside their handlers as they compete nose-to-nose on the ultimate K9 obstacle course.America's Top Dog has one or more episodes streaming via tv everywhere with A&E (Via Cable/Satellite Provider), available for purchase on Google Play, available for purchase on VUDU, and 1 other. It's an action & adventure and documentary show with 11 episodes over 1 season. America's Top Dog is still airing with no announced date for the next episode or season. It has a high IMDb audience rating of 8.3 (78 votes).

Final App:



streamOn

TV Show: Sherlock
Or/And: dogs

(multi-word keywords can be grouped by quotes Ex: "los angeles")

Additional Options:

Not like: Enter TV Show
Or/And: Enter keyword

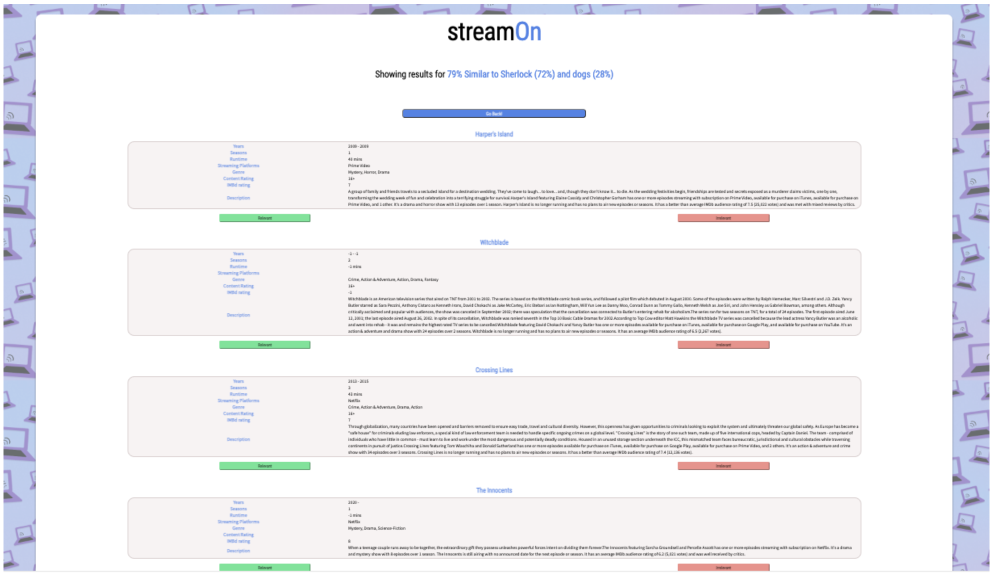
Enter subscriptions

Assign Weights:
Similarity
Not like
TV Show - Keyword
Not like: TV Show - Keyword

Genre

No. of Seasons
min: 1
max: 187

Year
min: 1946
max: 2021



streamOn

Showing results for 79% Similar to Sherlock (72%) and dogs (28%)

Harper's Island

Years	2009 - 2009
Seasons	1
Runtime	40 mins
Streaming Platforms	Prime Video
Genre	Mystery, Horror, Drama
Content Rating	16+
IMBd rating	7
Description	A group of family and friends travels to a secluded island for a destination wedding. They've come to laugh... to love... and, though they don't know it... to die. As the wedding festivities begin, friendships are tested and secrets exposed as a murderer claims victims, one by one, transforming the wedding week of fun and celebration into a terrifying struggle for survival.Harper's Island featuring Elaine Cassidy and Christopher Gorham has one or more episodes streaming with subscription on Prime Video, available for purchase on iTunes, available for purchase on Prime Video, and 1 other. It's a drama and horror show with 13 episodes over 1 season. Harper's Island is no longer running and has no plans to air new episodes or seasons. It has a better than average IMDb audience rating of 7.5 (25,022 votes) and was met with mixed reviews by critics.

Witchblade

Years	-1 - -1
Seasons	2
Runtime	-1 mins
Streaming Platforms	
Genre	Crime, Action & Adventure, Action, Drama, Fantasy
Content Rating	16+
IMBd rating	-1
Description	Witchblade is an American television series that aired on TNT from 2001 to 2002. The series is based on the Witchblade comic book series, and followed a pilot film which debuted in August 2000. Some of the episodes were written by Ralph Hemecker, Marc Silvestri and J.D. Zeik. Yancy Butler starred as Sara Pezzini, Anthony Cistaro as Kenneth Irons, David Chokachi as Jake McCartey, Eric Etebari as Ian Nottingham, Will Yun Lee as Danny Woo, Conrad Dunn as Tommy Gallo, Kenneth Welsh as Joe Siri, and John Hensley as Gabriel Bowman, among others. Although critically acclaimed and popular with audiences, the show was canceled in September 2002; there was speculation that the cancellation was connected to Butler's entering rehab for alcoholism.The series ran for two seasons on TNT, for a total of 24 episodes. The first episode aired June 12, 2001; the last episode aired August 26, 2002. In spite of its cancellation, Witchblade was ranked seventh in the Top 10 Basic Cable Dramas for 2002.According to Top Cow editor Matt Hawkins the Witchblade TV series was cancelled because the lead actress Yancy Butler was an alcoholic and went into rehab - it was and remains the highest rated TV series to be cancelled.Witchblade featuring David Chokachi and Yancy Butler has one or more episodes available for purchase on iTunes, available for purchase on Google Play, and available for purchase on YouTube. It's an action & adventure and drama show with 24 episodes over 2 seasons. Witchblade is no longer running and has no plans to air new episodes or seasons. It has an average IMDb audience rating of 6.5 (3,267 votes).

Crossing Lines

Years	2013 - 2015
Seasons	3
Runtime	43 mins
Streaming Platforms	Netflix
Genre	Crime, Action & Adventure, Drama, Action
Content Rating	16+
IMBd rating	7
Description	Through globalization, many countries have been opened and barriers removed to ensure easy trade, travel and cultural diversity. However, this openness has given opportunities to criminals looking to exploit the system and ultimately threaten our global safety. As Europe has become a "safe house" for criminals eluding law enforcers, a special kind of law enforcement team is needed to handle specific ongoing crimes on a global level. "Crossing Lines" is the story of one such team, made up of five international cops, headed by Captain Daniel. The team - comprised of individuals who have little in common - must learn to live and work under the most dangerous and potentially deadly conditions. Housed in an unused storage section underneath the ICC, this mismatched team faces bureaucratic, jurisdictional and cultural obstacles while traversing continents in pursuit of justice.Crossing Lines featuring Tom Wlaschiha and Donald Sutherland has one or more episodes available for purchase on iTunes, available for purchase on Google Play, available for purchase on Prime Video, and 2 others. It's an action & adventure and crime show with 34 episodes over 3 seasons. Crossing Lines is no longer running and has no plans to air new episodes or seasons. It has a better than average IMDb audience rating of 7.4 (12,136 votes).

The Innocents

Years	2020 -
Seasons	1
Runtime	-1 mins
Streaming Platforms	Netflix
Genre	Mystery, Drama, Science-Fiction
Content Rating	
IMBd rating	6
Description	When a teenage couple runs away to be together, the extraordinary gift they possess unleashes powerful forces intent on dividing them forever.The Innocents featuring Sorcha Groundsell and Percelle Ascott has one or more episodes streaming with subscription on Netflix. It's a drama and mystery show with 8 episodes over 1 season. The Innocents is still airing with no announced date for the next episode or season. It has an average IMDb audience rating of 6.2 (5,021 votes) and was well received by critics.

Example 3

Input: TV show: It's Always Sunny in Philadelphia; **Not Like TV show:** The League; **Similarity Weight:** 87%; **Not Like Weight:** 76%;

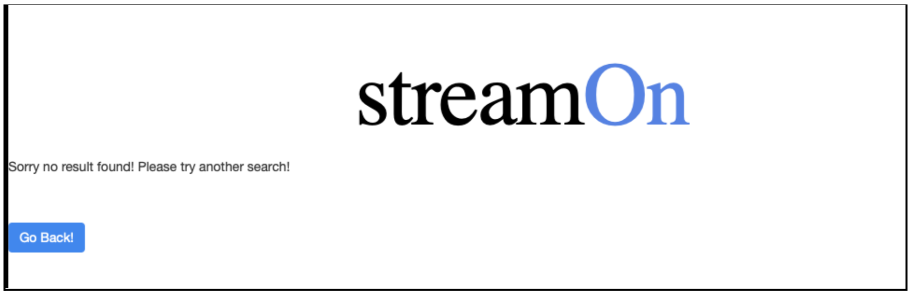
Output:

1. Transparent
2. Men at Work
3. The Last Man on Earth
4. Life on Mars
5. Rookie Blue

6. Cracked
7. The Loop
8. Mad Men
9. Stitchers
10. How to Get Away with Murder

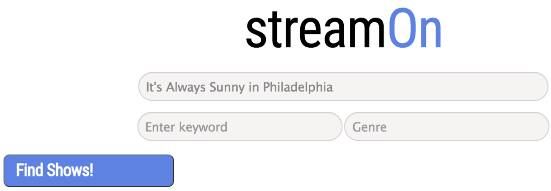
Screenshot:

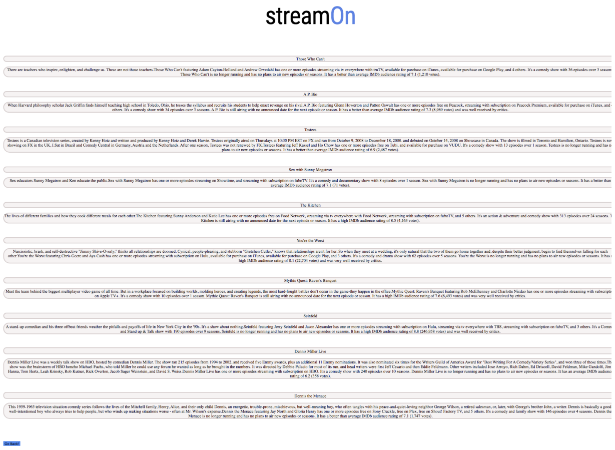
Prototype 1



Sorry no result found! Please try another search!

Prototype 2





Those Who Can't

There are teachers who inspire, enlighten, and challenge us. These are not those teachers.Those Who Can't featuring Adam Cayton-Holland and Andrew Orvedahl has one or more episodes streaming via tv everywhere with truTV, available for purchase on iTunes, available for purchase on Google Play, and 4 others. It's a comedy show with 36 episodes over 3 season Those Who Can't is no longer running and has no plans to air new episodes or seasons. It has a better than average IMDb audience rating of 7.1 (1,210 votes).

A.P. Bio

When Harvard philosophy scholar Jack Griffin finds himself teaching high school in Toledo, Ohio, he tosses the syllabus and recruits his students to help enact revenge on his rival.A.P. Bio featuring Glenn Howerton and Patton Oswalt has one or more episodes free on Peacock, streaming with subscription on Peacock Premium, available for purchase on iTunes, and others. It's a comedy show with 34 episodes over 3 seasons. A.P. Bio is still airing with no announced date for the next episode or season. It has a better than average IMDb audience rating of 7.3 (8,969 votes) and was well received by critics.

Testees

Testees is a Canadian television series, created by Kenny Hotz and written and produced by Kenny Hotz and Derek Harvie. Testees originally aired on Thursdays at 10:30 PM EST on FX and ran from October 9, 2008 to December 18, 2008. and debuted on October 14, 2008 on Showcase in Canada. The show is filmed in Toronto and Hamilton, Ontario. Testees is no showing on FX in the UK, I.Sat in Brazil and Comedy Central in Germany, Austria and the Netherlands. After one season, Testees was not renewed by FX.Testees featuring Jeff Kassel and Ho Chow has one or more episodes free on Tubi, and available for purchase on VUDU. It's a comedy show with 13 episodes over 1 season. Testees is no longer running and has n plans to air new episodes or seasons. It has a better than average IMDb audience rating of 6.9 (2,487 votes).

Sex with Sunny Megatron

Sex educators Sunny Megatron and Ken educate the public.Sex with Sunny Megatron has one or more episodes streaming on Showtime, and streaming with subscription on fuboTV. It's a comedy and documentary show with 8 episodes over 1 season. Sex with Sunny Megatron is no longer running and has no plans to air new episodes or seasons. It has a better than average IMDb audience rating of 7.1 (71 votes).

The Kitchen

The lives of different families and how they cook different meals for each other.The Kitchen featuring Sunny Anderson and Katie Lee has one or more episodes free on Food Network, streaming via tv everywhere with Food Network, streaming with subscription on fuboTV, and 5 others. It's an action & adventure and comedy show with 313 episodes over 24 seasons. T Kitchen is still airing with no announced date for the next episode or season. It has a high IMDb audience rating of 8.5 (4,163 votes).

You're the Worst

Narcissistic, brash, and self-destructive "Jimmy Shive-Overly," thinks all relationships are doomed. Cynical, people-pleasing, and stubborn "Gretchen Cutler," knows that relationships aren't for her. So when they meet at a wedding, it's only natural that the two of them go home together and, despite their better judgment, begin to find themselves falling for each other.You're the Worst featuring Chris Geere and Aya Cash has one or more episodes streaming with subscription on Hulu, available for purchase on iTunes, available for purchase on Google Play, and 3 others. It's a comedy and drama show with 62 episodes over 5 seasons. You're the Worst is no longer running and has no plans to air new episodes or seasons. It has a high IMDb audience rating of 8.1 (22,704 votes) and was very well received by critics.

Mythic Quest: Raven's Banquet

Meet the team behind the biggest multiplayer video game of all time. But in a workplace focused on building worlds, molding heroes, and creating legends, the most hard-fought battles don't occur in the game-they happen in the office.Mythic Quest: Raven's Banquet featuring Rob McElhenney and Charlotte Nicdao has one or more episodes streaming with subscripti on Apple TV+. It's a comedy show with 10 episodes over 1 season. Mythic Quest: Raven's Banquet is still airing with no announced date for the next episode or season. It has a high IMDb audience rating of 7.6 (6,493 votes) and was very well received by critics.

Seinfeld

A stand-up comedian and his three offbeat friends weather the pitfalls and payoffs of life in New York City in the '90s. It's a show about nothing.Seinfeld featuring Jerry Seinfeld and Jason Alexander has one or more episodes streaming with subscription on Hulu, streaming via tv everywhere with TBS, streaming with subscription on fuboTV, and 3 others. It's a Come and Stand up & Talk show with 190 episodes over 9 seasons. Seinfeld is no longer running and has no plans to air new episodes or seasons. It has a high IMDb audience rating of 8.8 (246,958 votes) and was well received by critics.

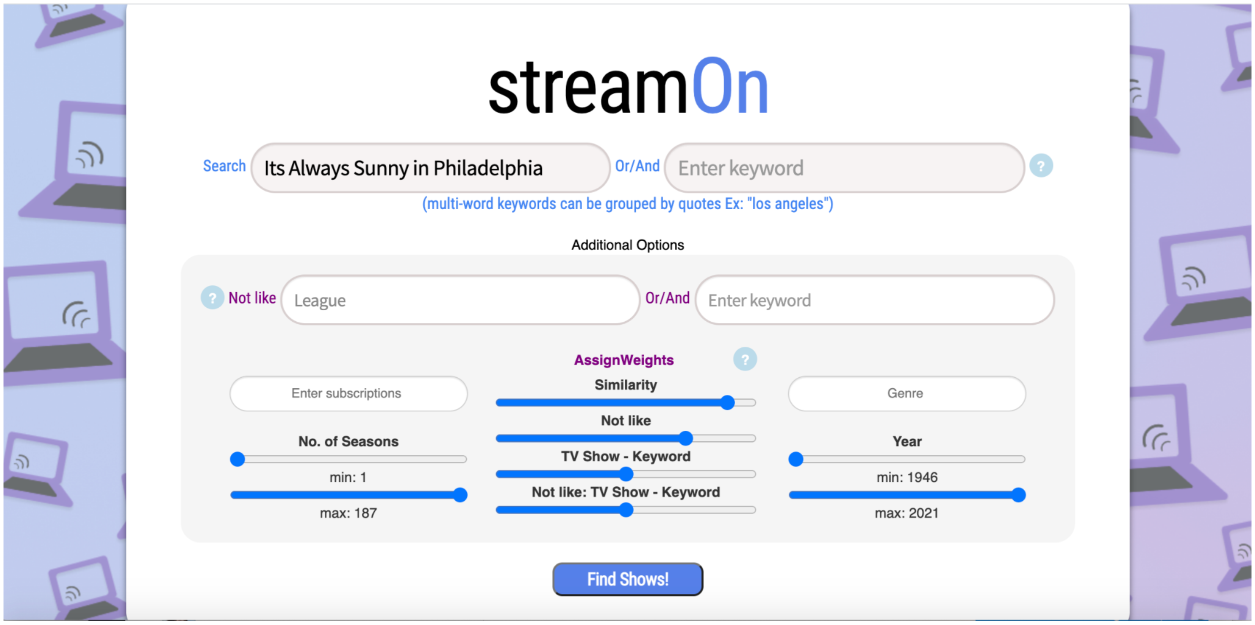
Dennis Miller Live

Dennis Miller Live was a weekly talk show on HBO, hosted by comedian Dennis Miller. The show ran 215 episodes from 1994 to 2002, and received five Emmy awards, plus an additional 11 Emmy nominations. It was also nominated six times for the Writers Guild of America Award for "Best Writing For A Comedy/Variety Series", and won three of those times.Th show was the brainstorm of HBO honcho Michael Fuchs, who told Miller he could use any forum he wanted as long as he brought in the numbers. It was directed by Debbie Palacio for most of its run, and head writers were first Jeff Cesario and then Eddie Feldmann. Other writers included Jose Arroyo, Rich Dahm, Ed Driscoll, David Feldman, Mike Gandolfi, Jim Hanna, Tom Hertz, Leah Krinsky, Rob Kutner, Rick Overton, Jacob Sager Weinstein, and David S. Weiss.Dennis Miller Live has one or more episodes streaming with subscription on HBO. It's a comedy show with 240 episodes over 10 seasons. Dennis Miller Live is no longer running and has no plans to air new episodes or seasons. It has an average IMDb audienc rating of 6.2 (358 votes).

Dennis the Menace

This 1959-1963 television situation comedy series follows the lives of the Mitchell family, Henry, Alice, and their only child Dennis, an energetic, trouble-prone, mischievous, but well-meaning boy, who often tangles with his peace-and-quiet-loving neighbor George Wilson, a retired salesman, or, later, with George's brother John, a writer. Dennis is basically a good well-intentioned boy who always tries to help people, but who winds up making situations worse - often at Mr. Wilson's expense.Dennis the Menace featuring Jay North and Gloria Henry has one or more episodes free on Sony Crackle, free on Plex, free on Shout! Factory TV, and 5 others. It's a comedy and family show with 146 episodes over 4 seasons. Dennis the Menace is no longer running and has no plans to air new episodes or seasons. It has a better than average IMDb audience rating of 7.1 (1,747 votes).

Final App:



Search: Its Always Sunny in Philadelphia

Not like: League

No. of Seasons
min: 1
max: 187

Year
min: 1946
max: 2021

Example 4

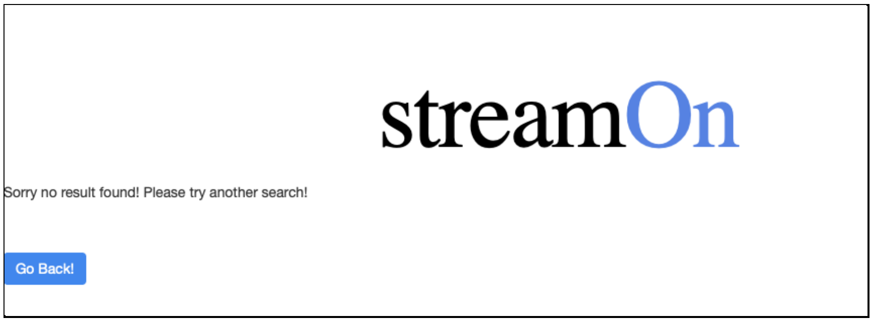
Input: TV show: insecure; **ad-hoc:** “los angeles”; **Not Like TV show:** black-ish; **Similarity Weight:** 87%; **Not Like Weight:** 76%, **Streaming Platforms:** Netflix, HBO Max

Output:

1. High Maintenance
2. Big Little Lies
3. Girls
4. True Detective
5. Game Of Thrones
6. Tell Me you Love Me
7. Euphoria
8. I May Destroy You
9. Sr. Ivila
10. On Freddie Roach

Screenshot:

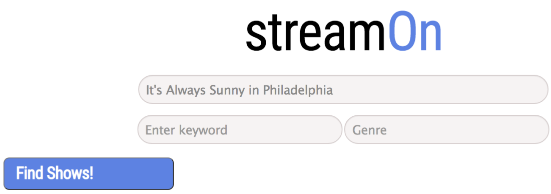
Prototype 1



streamOn

Sorry no result found! Please try another search!

Prototype 2

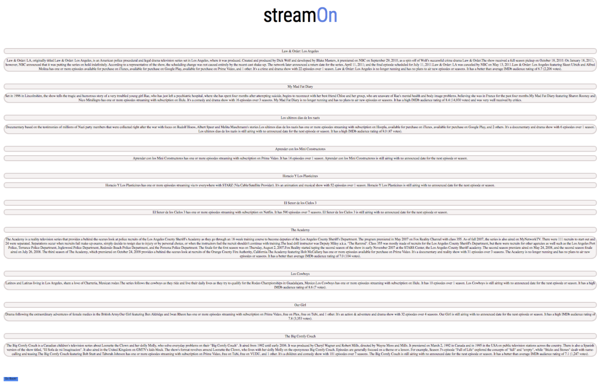


streamOn

It's Always Sunny in Philadelphia

Enter keyword

Genre



streamOn

Law & Order: Los Angeles

Law & Order: LA, originally titled Law & Order: Los Angeles, is an American police procedural and legal drama television series set in Los Angeles, where it was produced. Created and produced by Dick Wolf and developed by Blake Masters, it premiered on NBC on September 29, 2010, as a spin-off of Wolf's successful crime drama Law & Order.The show received a full season pickup on October 18, 2010. On January 18, 2011, however, NBC announced that it was putting the series on hold indefinitely. According to a representative of the show, the scheduling change was not caused entirely by the recent cast shake-up. The network later announced a return date for the series, April 11, 2011; and the final episode scheduled for July 11, 2011.Law & Order: LA was canceled by NBC on May 13, 2011.Law & Order: Los Angeles featuring Skeet Ulrich and Alfred Molina has one or more episodes available for purchase on iTunes, available for purchase on Google Play, available for purchase on Prime Video, and 1 other. It's a crime and drama show with 22 episodes over 1 season. Law & Order: Los Angeles is no longer running and has no plans to air new episodes or seasons. It has a better than average IMDb audience rating of 6.7 (2,206 votes).

My Mad Fat Diary

Set in 1996 in Lincolnshire, the show tells the tragic and humorous story of a very troubled young girl Rae, who has just left a psychiatric hospital, where she has spent four months after attempting suicide, begins to reconnect with her best friend Chloe and her group, who are unaware of Rae's mental health and body image problems, believing she was in France for the past four months.My Mad Fat Diary featuring Sharon Rooney and Nico Mirallegro has one or more episodes streaming with subscription on Hulu. It's a comedy and drama show with 16 episodes over 3 seasons. My Mad Fat Diary is no longer running and has no plans to air new episodes or seasons. It has a high IMDb audience rating of 8.4 (14,930 votes) and was very well received by critics.

Los ultimos dias de los nazis

Documentary based on the testimonies of millions of Nazi party members that were collected right after the war with focus on Rudolf Hoess, Albert Speer and Melita Maschmann's stories.Los ultimos dias de los nazis has one or more episodes streaming with subscription on Hoopla, available for purchase on iTunes, available for purchase on Google Play, and 2 others. It's a documentary and drama show with 6 episodes over 1 season. Los ultimos dias de los nazis is still airing with no announced date for the next episode or season. It has a high IMDb audience rating of 8.0 (47 votes).

Aprender con los Mini Constructores

Aprender con los Mini Constructores has one or more episodes streaming with subscription on Prime Video. It has 14 episodes over 1 season. Aprender con los Mini Constructores is still airing with no announced date for the next episode or season.

Horacio Y Los Plasticines

Horacio Y Los Plasticines has one or more episodes streaming via tv everywhere with STARZ (Via Cable/Satellite Provider). It's an animation and musical show with 52 episodes over 1 season. Horacio Y Los Plasticines is still airing with no announced date for the next episode or season.

El Senor de los Cielos 3

El Senor de los Cielos 3 has one or more episodes streaming with subscription on Netflix. It has 590 episodes over 7 seasons. El Senor de los Cielos 3 is still airing with no announced date for the next episode or season.

The Academy

The Academy is a reality television series that provides a behind-the-scenes look at police recruits of the Los Angeles County Sheriff's Academy as they go through an 18-week training course to become deputies of the Los Angeles County Sheriff's Department. The program premiered in May 2007 on Fox Reality Channel with class 355. As of fall 2007, the series is also aired on MyNetworkTV. There were 111 recruits to start out and 24 were separated. Separations occur when recruits fail make-up exams, simply decide to resign due to injury or by personal choice, or when the instructors feel the recruit shouldn't continue with training.The lead drill instructor was Deputy Miley a.k.a. "The Ramrod". Class 355 was mostly made of recruits for the Los Angeles County Sheriff's Department, but there were recruits for other agencies as well such as the Los Angeles Port Police, Torrance Police Department, Inglewood Police Department, Redondo Beach Police Department, and the Pomona Police Department. The finale for the first season was on Thursday, August 2, 2007.Fox Reality started taping the second season of the show in early November 2007 at the STARS Center, the Los Angeles County Sheriff academy. The second season premiere aired on May 24, 2008, and the second season finale aired on July 26, 2008. The third season of The Academy, which premiered on October 24, 2009 provides a behind-the-scenes look at recruits of the Orange County Fire Authority, California.The Academy featuring Holt McCallany has one or more episodes available for purchase on Prime Video. It's a documentary and reality show with 31 episodes over 3 seasons. The Academy is no longer running and has no plans to air new episodes or seasons. It has a better than average IMDb audience rating of 7.0 (104 votes).

Los Cowboys

Latinos and Latinas living in Los Angeles, share a love of Charreria, Mexican rodeo.The series follows the cowboys as they ride and live their daily lives as they try to qualify for the Rodeo Championships in Guadalajara, Mexico.Los Cowboys has one or more episodes streaming with subscription on Hulu. It has 10 episodes over 1 season. Los Cowboys is still airing with no announced date for the next episode or season. It has a high IMDb audience rating of 8.6 (7 votes).

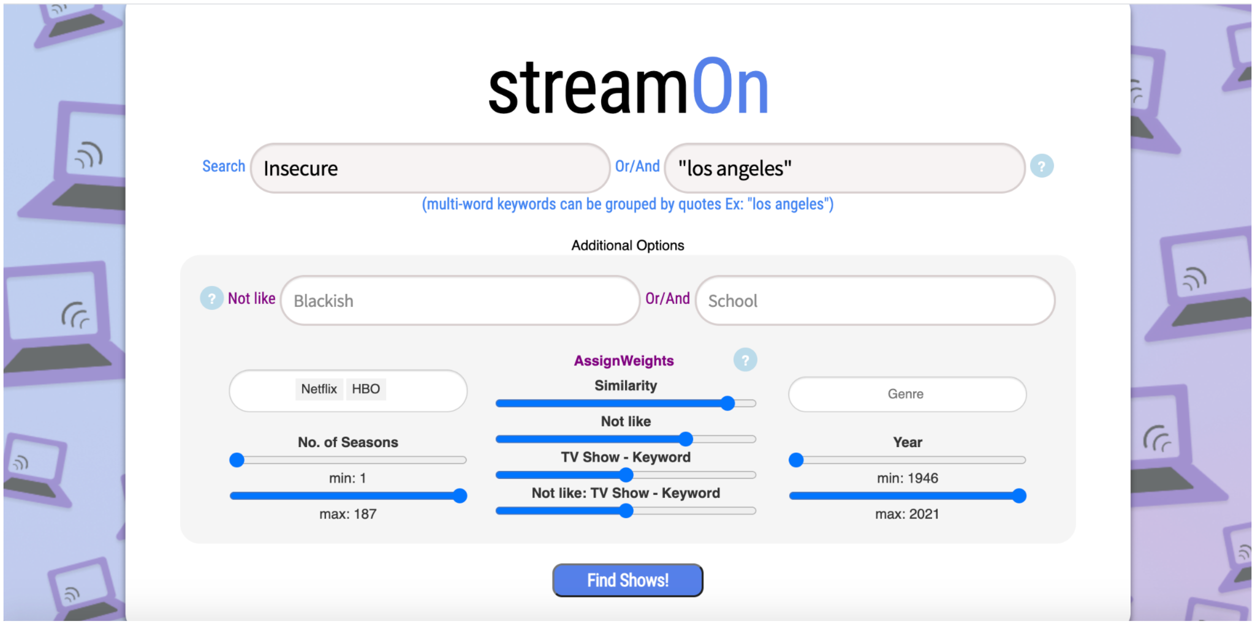
Our Girl

Drama following the extraordinary adventures of female medics in the British Army.Our Girl featuring Ben Aldridge and Iwan Rheon has one or more episodes streaming with subscription on Prime Video, free on Plex, free on Tubi, and 1 other. It's an action & adventure and drama show with 32 episodes over 4 seasons. Our Girl is still airing with no announced date for the next episode or season. It has a high IMDb audience rating of 7.8 (3,353 votes).

The Big Comfy Couch

The Big Comfy Couch is a Canadian children's television series about Loonette the Clown and her dolly Molly, who solve everyday problems on their "Big Comfy Couch". It aired from 1992 until early 2006. It was produced by Cheryl Wagner and Robert Mills, directed by Wayne Moss and Mills. It premiered on March 2, 1992 in Canada and in 1995 in the USA on public television stations across the country. There is also a Spanish version of the show titled, "El Sofa de mi Imaginacion". It also aired in the United Kingdom on GMTV's kids block. The show's format revolves around Loonette the Clown, who lives with her dolly Molly on the eponymous Big Comfy Couch. Episodes are generally focused on a theme or a lesson. For example, Season 3's episode "Full of Life" explored the concepts of "full" and "empty", while "Sticks and Stones" dealt with name-calling and teasing.The Big Comfy Couch featuring Bob Stutt and Taborah Johnson has one or more episodes streaming with subscription on Prime Video, free on Tubi, free on VUDU, and 1 other. It's a children and comedy show with 101 episodes over 7 seasons. The Big Comfy Couch is still airing with no announced date for the next episode or season. It has a better than average IMDb audience rating of 7.1 (1,247 votes).

Final App:



streamOn

Search: Insecure

Or/And: "los angeles"

(multi-word keywords can be grouped by quotes Ex: "los angeles")

Additional Options

Not like: Blackish

Or/And: School

Netflix HBO

AssignWeights

Similarity

Not like

TV Show - Keyword

Not like: TV Show - Keyword

Genre

No. of Seasons

min: 1

max: 187

Year

min: 1946

max: 2021

Project Prototype (P04): Second running prototype

Description of changes and acknowledgment of feedback.

For the second prototype, we focused on adding our social and machine learning components to our app. In the previous model, on searching a TV show, the app would return the top three similar shows based on Jaccard Similarity of the transcripts. Now, the search results also take into account the Cosine Similarity of genre, the Cosine Similarity of descriptions, and the Cosine Similarity of reviews (from IMDb), each weighted appropriately to give the optimal results. We also improved our search by making the queries case insensitive and adding edit distance to account for misspellings.

We implemented relevance feedback for our machine learning component. When receiving results the user will indicate whether they found the document to be relevant or not. We will then store this information in a json file. If the percentage of users saying a result is relevant for a show is >0.75 then the result is added as a result doc for the show, and if the percentage is less than <0.25 then the result is added as an irrelevant doc for the show. We then use this dictionary of relevant and irrelevant docs for a show to power our rocchio update algorithm.

We also improved our UI by directing the results to a new webpage, improved the layout of search boxes, and providing appropriate error messages in case the TV show doesn't exist in our database.

Input Output Examples

Example 1

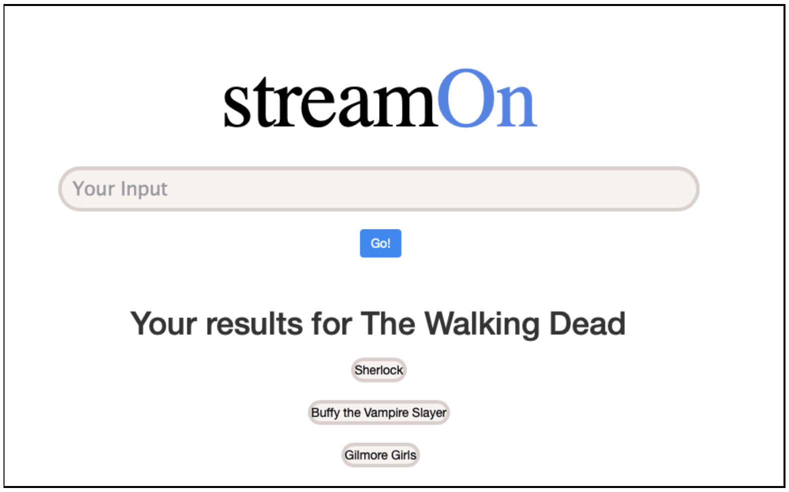
Input: TV show: The Walking Dead

Output:

11. 'Fear the Walking Dead'
12. 'The Walking Dead: World Beyond'
13. 'Highschool of the Dead'
14. 'Black Summer'
15. 'In the Flesh'
16. 'Z Nation'
17. 'Freakish'
18. 'Mad Dogs'
19. 'The 100'
20. 'The Returned'

Screenshot:

Prototype 1



Your results for The Walking Dead

Sherlock

Buffy the Vampire Slayer

Gilmore Girls

Prototype 2

Description:
For this search, we entered one TV show "The Walking Dead" which gave the results based on the Jaccard Similarity of the transcripts, reviews and descriptions. While the results are accurate and as expected, we could look into providing an option to the users to determine how close the results should be to the input as someone who was seen "The Walking Dead" would most likely know about "Fear the Walking Dead" or "The Walking Dead: World Beyond". Overall, the results were accurate for our goals for this prototype.

Example 2

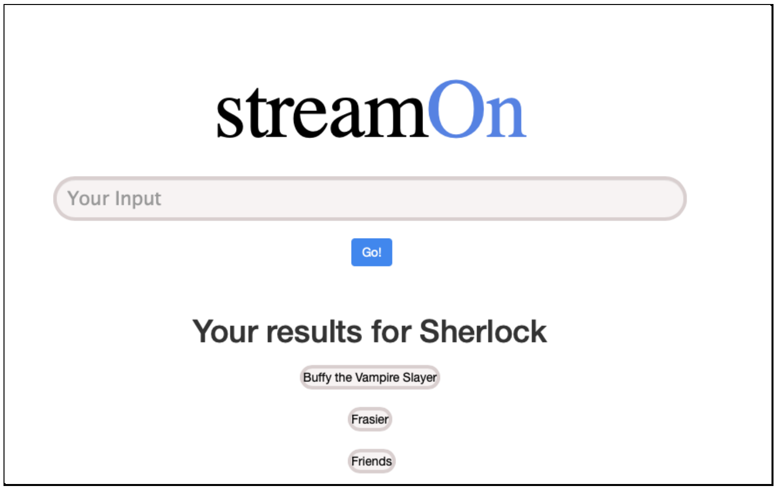
Input: TV show: Sherlock; **ad-hoc:** dogs

Output:

11. Elementary
12. Extraordinary Dogs
13. Pit Bulls and Parolees
14. The Dog House
15. America's Top Dog
16. Sherlock Holmes in the 22nd Century
17. Paul O'Grady: For the Love of Dogs
18. The Return of Sherlock Holmes
19. The Case-Book of Sherlock Holmes
20. Miss Sherlock

Screenshot:

Prototype 1 (no ad-hoc component)



Your results for Sherlock

Buffy the Vampire Slayer

Frasier

Friends

Prototype 2

Description:
For this search, we tested our normal search with the show "Sherlock" and for the free search (ad hoc) we use the keywords "dogs". For the base search, we used information from description, reviews, and transcripts. For the free search, we only used the reviews and descriptions. In our results, there were a lot of Sherlock shows and then dogs shows with similar themes. We might want to give less weight to ad hoc search inputs. Overall, the output worked really well.

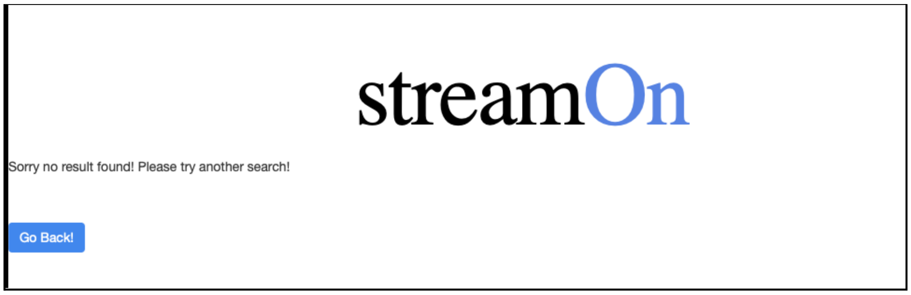
Example 3

Input: It's Always Sunny in Philadelphia

Output:
none

Screenshot:

Prototype 1



Sorry no result found! Please try another search!

Prototype 2

Description: For this search, we imputed the TV Show "It's Always Sunny in Philadelphia", but did not receive any results back. This is because our dataset currently does not have the transcripts, reviews or descriptions for this show. The user will be shown an appropriate message saying that the results weren't found and that they should try another search. Overall, the output was as expected for this show.

Example 4

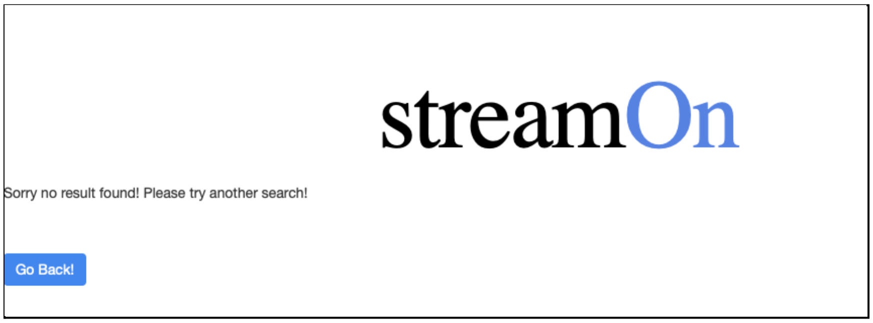
Input: TV show: insecure; **Ad hoc:** Los Angeles

Output:

1. 'Law & Order: Los Angeles'
2. 'Master of None'
3. 'Mad Dogs'
4. 'Tell Me You Love Me'
5. 'Sense8'
6. 'Easy'
7. 'Girlfriends'
8. 'Swingtown'
9. 'The Neighbors'
10. 'American Crime'

Screenshot:

Prototype 1 (no ad-hoc component)



Sorry no result found! Please try another search!

Prototype 2

Description:

For this search, we entered the TV show "insecure" which tests our basic search using transcripts and IMDb descriptions through Jaccard Similarity. The ad hoc query, "Los Angeles" tests our Jaccard Similarity for reviews from IMDb, which form the basis of our ad hoc component. As a result, there are a mix of shows that contain the keyword "Los Angeles", and shows related to "insecure". This search also shows that our inputs are case insensitive, i.e.

"insensitive" and "Insensitive" will both return the same results. Overall, the results came out as expected.

Example 5

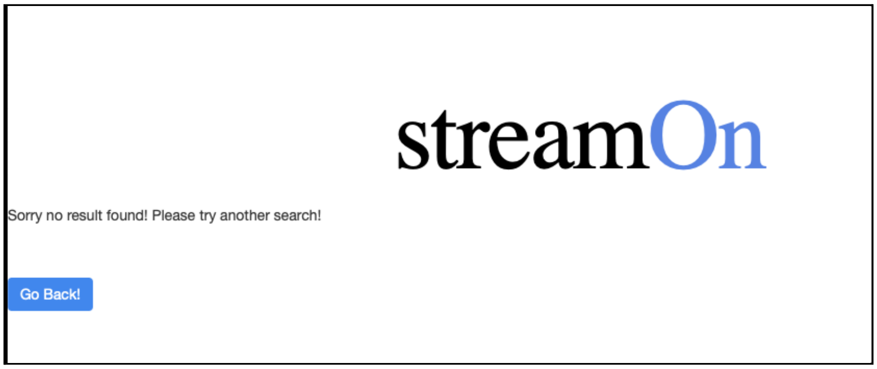
Input: TV show: power

Output:

1. 'Mad Dogs'
2. 'Rubicon'
3. 'Game of Thrones'
4. 'Sense8'
5. 'Gomorrah'
6. 'Siberia'
7. 'The Returned'
8. 'The Tomorrow People'
9. 'The 100'
10. 'American Crime'

Screenshot:

Prototype 1



Sorry no result found! Please try another search!

Prototype 2

Description:

For this search, we tested our normal search with the show “power” to test case-sensitivity . In our results, the suggestions were pretty accurate, but there were some outliers like “The 100” and “The Tomorrow People”. This might be because we have not added all of the transcripts into our prototype database. Overall, the output worked really well.

Project Prototype (P03): First running prototype

Prototype link: https://stream-on.herokuapp.com

Baseline Method Description

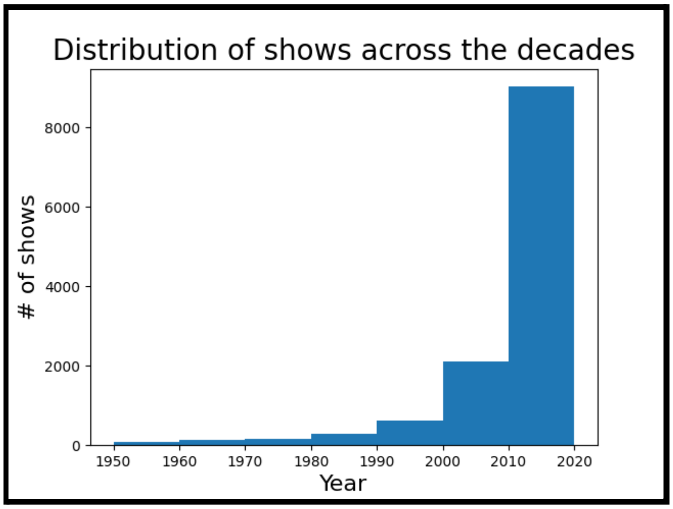
Briefly explain the baseline method that is currently generating output. What information retrieval and machine learning techniques (if any) are you using in your output? Does your method require any special data manipulation or post-processing?

For the baseline model, we focused on the main information retrieval aspect, which is to generate a ranked list of TV shows similar to the show the user inputs. For this model, we output the 3 most similar shows based on the Jaccard similarity between their transcripts. The model takes into consideration all words in the transcripts of a show that appear more than once per episode. It then uses the Jaccard similarity measure to rank which shows are the most relevant and returns the top 3 to the user.

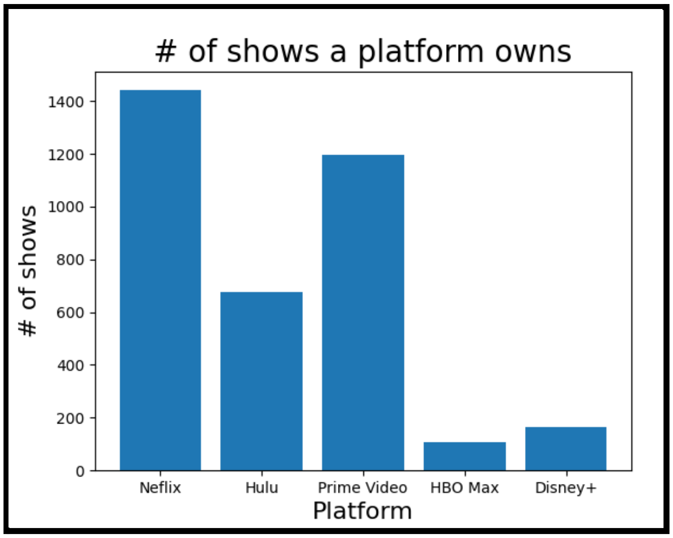
Project Update (P02): Data, Examples and Updated Description

Statistics and Basic Exploration of the Dataset

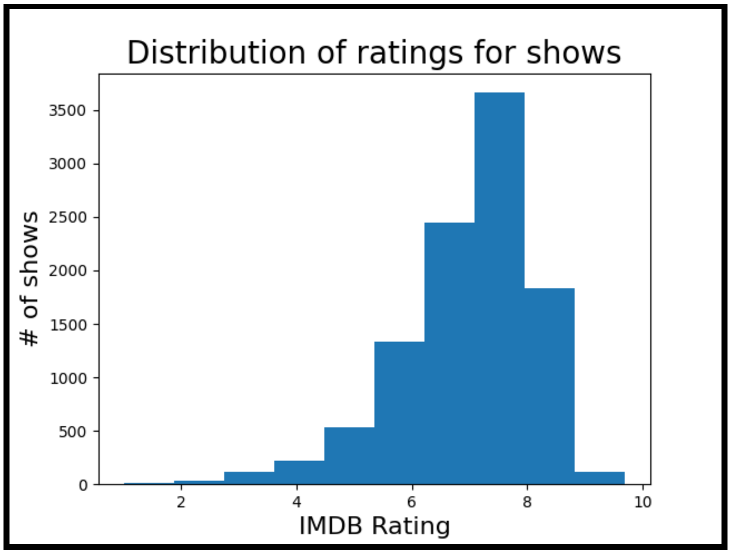
Our current dataset contains around 12450 shows. We believe that is an ample amount of data required for this project. Looking at the histogram below we see that most of the shows we will recommend come from the 21st century. This makes sense because most older shows either are not on many streaming platforms or our target audience would not care to watch.



There are a lot of ways to watch shows currently. With the rise of television streaming services and the diversification of available platforms, many shows are found on one or multiple different platforms. The shows in our dataset can be found on 5 major different platforms. The platforms that the most shows can be watched on are Netflix while HBO Max only has a few shows. This part of the data will be important in our recommendation, since we want to make sure we are able to have a significant number of recommended shows based on the input show and the desired platform that the user provides. Given that most of the platforms in our dataset have many shows, our recommendation can be reasonably accurate. However, we may struggle to provide multiple recommendations for HBO and Disney+, which are represented less in our dataset.



When ranking the recommendations, we want to provide shows that are not only highly relevant based on the input information, but also highly rated. It would not be useful to the user to provide show recommendations that are similar to their input but poorly rated and unpleasant to watch. We will have to find a balance between the show's rating and similarity. The distribution of ratings in our dataset is skewed higher on the scale, with most shows falling between the scores of 6 and 8. This will make it possible for us to provide high-quality recommendations.



Sketched Examples and Descriptions of Idealized Inputs and Outputs

For our TV recommendation system, the app will require the user to input the name of a TV show that they want the recommendation to be based on. The user also has the option to provide other information, such as additional TV shows that they want to include or exclude from the recommendation input, streaming platforms that they have access to, average desire episode length. show length, genres they want to include or exclude from the recommendation input, and more. The app will output a ranking of similar TV shows along with the streaming platforms where you can watch the shows. Each show in the list will contain a small description, year, avg. episode length, rating, and possibly a small graph to show how seasons change in similarity. Below are two examples of valid inputs and their outputs.

~ **User input:** American Horror Story

~ **System output:**

Here’s a the top results for shows that are similar to **American Horror Story** (2011):

1. American Crime Story (2016) An anthology series centered around some of history's most famous criminals.American Crime Story featuring Darren Criss and Edgar Ramírez has one or more episodes streaming with subscription on Netflix, available for purchase on iTunes, available for purchase on Google Play, and 3 others. It's a biography and crime show with 19 episodes over 2 seasons (Avg Episode Length: 53 mins). American Crime Story has a new episode airing on September 27th, 2020 (PDT). It has a high IMDb audience rating of 8.4 (77,103 votes), Rotten Tomatoes Score of 93%, and was very well received by critics.

2. The Haunting (2018) - The Crains, a fractured family, confront haunting memories of their old home and the terrifying events that drove them from it.The Haunting featuring Michiel Huisman and Elizabeth Reaser has one or more episodes streaming with subscription on Netflix, available for purchase on Google Play, available for purchase on Prime Video, and 2 others. It's a drama and horror show with 10 episodes over 1 season (Avg Episode Length: 56 mins). The Haunting is still airing with no announced date for the next episode or season. It has a high IMDb audience rating of 8.7 (154,025 votes) and was very well received by critics.

3. Black Mirror (2011) - A contemporary British re-working of The Twilight Zone with stories that tap into the collective unease about our modern world. Over the last ten years, technology has transformed almost every aspect of our lives before we've had time to stop and question it. In every home; on every desk; in every palm - a plasma screen; a monitor; a smartphone - a black mirror of our 21st Century existence. Black Mirror has one or more episodes streaming with subscription on Netflix, and available for purchase on iTunes. It's a drama and fantasy show with 22 episodes over 5 seasons. Black Mirror is still airing with no announced date for the next episode or season. It has a high IMDb audience rating of 8.8 (417,642 votes), Rotten Tomatoes Score of 83%, and was well received by critics.

...

~ Given the query "American Horror Story" the system queries the database of tv shows that are similar to *American Horror Story*, which would include shows that are Horror or Dramas and Anthology Series. Then, we will precompute to ensure that the user has input a valid query. To determine similarity, we will compare transcripts, genre, descriptions, and ratings. We have a lot of data to search through so we will have to figure out the order of how we will narrow down the dataset and which factors have a higher ranking in terms of similarity. We need to decide if we want to show just the top 10 results or pages of results ordered by rank.

~ **User input:** Friends NOT The Office STREAMING SERVICES: Hulu, Netflix EPISODE LENGTH: <30 mins

~ **System output:**

Here's are the top results for shows that are similar to **Friends** (1994) but not similar to **The Office** (2005) on **Hulu and Netflix** with an episode length **<30 mins:**

1. Seinfeld (1989) - A stand-up comedian and his three offbeat friends weather the pitfalls and payoffs of life in New York City in the '90s. It's a show about nothing.Seinfeld featuring Jerry Seinfeld and Jason Alexander has one or more episodes streaming with subscription on Hulu, streaming via tv everywhere with TBS, streaming with subscription on fuboTV, and 3 others. It's a Comedy and Stand up & Talk show with 190 episodes over 9 seasons (Avg Episode Length: 22 mins). Seinfeld is no longer running and has no plans to air new episodes or seasons. It has a high IMDb audience rating of 8.8 (246,958 votes) and was well received by critics.

2. How I Met Your Mother (2005) - A father recounts to his children - through a series of flashbacks - the journey he and his four best friends took leading up to him meeting their mother. How I Met Your Mother featuring Cristin Milioti and Neil Patrick Harris has one or more episodes streaming with subscription on Hulu. It's a comedy and romance show with 209 episodes over 9 seasons (Avg Episode Length: 22 mins). How I Met Your Mother is no longer running and has no plans to air new episodes or seasons. It has a high IMDb audience rating of 8.3 (584,275 votes), Rotten Tomatoes Score of 83%, and was well received by critics.

3. New Girl (2011) - Jessica Day is an offbeat and adorable girl in her late 20s who, after a bad breakup, moves in with three single guys. Goofy, positive, vulnerable and honest to a fault, Jess has faith in people, even when she shouldn't. Although she's dorky and awkward, she's comfortable in her own skin. More prone to friendships with women, she's not used to hanging with the boys—especially at home. New Girl featuring Zooey Deschanel and Jake Johnson has one or more episodes streaming with subscription on Netflix, streaming via tv everywhere with TBS. It's a comedy show with 146 episodes over 7 seasons (Avg Episode Length: 21-24 mins). New Girl is no longer running and has no plans to air new episodes or seasons. It has a high IMDb audience rating of 7.7 (182,534 votes), a Rotten Tomatoes score of 94%, and was very well received by critics.

…

~ Given the query "Friends NOT The Office STREAMING SERVICES: Hulu, Netflix EPISODE LENGTH: <30 mins," the system queries the database of tv shows with a runtime of 30 mins that are similar to *Friends*, which would include shows that are romantic comedies revolving around a friend group, and not similar to The Office, which would include workplace comedies, and are on Hulu or Netflix. After making sure that it's a valid query, the algorithm will work like the above example except it will prioritize the input filters over the other filters that are already a part of the algorithm.

An Updated Description

We added new things to our abstract by updating our piazza post. The italicized parts represent the differences from P01 to P02. We added that one of the filters would be streaming platforms the user has access to because we had talked about it when brainstorming this idea and we think it will make the output more personalized. We also added a Creativity section because after meeting with our TA, we have begun thinking about what would make our system stand out. Although there are other platforms that recommend TV shows, our platform has two distinct features. First, our system is entirely dedicated to TV shows on streaming services, so it only makes sense that it recommends shows that the user has access to. Second, we want to have an option to recommend a show to a group of people. If the users are a group of people, multiple people will fill out their preferences and then output movies that relate to as many of the group's preferences as possible.

Weekly Schedule

Week 4/4

- Project Manager: Kendall
- Organize Datasets
    - Team Members: Kendall, Riya, Divya
- Data Exploration
    - Team Members: Sid, Siddhi

Week 4/11

- Project Manager: Divya
- Finalize Datasets
- Begin Working on Implementation
- have all the basic recommendation working

Week 4/18

- Project Manager: Riya
- Work On Implementation
- include "mood" and user ratings
- Work on UI
    - Team Members: Siddhi, Kendall, Riya
- Prepare Demo
- **April 19: First live prototype, a presentation and demo in class**

Week 4/25

- Project Manager: Siddhi
- Finish Implementation
    - Team Members: Everyone
- Finish UI
    - Team Members: Siddhi, Kendall, Riya
- Testing
- Prepare Demo
- Team Members: Everyone
- **April 30: Second live prototype, presentation**

Week 5/2

- Project Manager: Sid
- Finalize Everything
- Prototype / Testing
- Presentation
- **May 5: Final app goes live, presentation**

Experience/Work Division

Siddhi:
- Prefer to work on backend work, can help with frontend

Divya:
- Backend - highest preference
- Machine Learning (Moderate experience - some NLP (little experience with summarization) and other more generic models like SVMs, KNN, Decision Trees, etc.)

Riya:
- primarily Backend
- Design (UI) by working with Frontend
- can help out with NLP (moderate experience)

Kendall:
- Prefers Backend
- Has experience with Frontend

Sid:
- Prefers Backend

Project Proposal Abstract (P01)

Piazza Note: https://piazza.com/class/kkphiirsh2a8p?cid=487
GitHub Repository: github.com/riyajaggi/cs4300sp2020-rj356-dd492-sc2538-sv352-kal255
Heruko App: https://stream-on.herokuapp.com

Goal

The app will recommend similar TV shows based on user input and will tell the user which platform the show can be streamed on. This can be extended to also account for episode length, moods, and can utilize summaries of the TV shows.

Description

Input: The app will require the user to input the name of a TV show that they want the recommendation to be based on. The user also has the option to provide other information, such as additional TV shows that they want to include or exclude from the recommendation input, streaming platforms that they have access to, average desire episode length and show length, genres they want to include or exclude from the recommendation input, desired age rating, and the range of years they want the movie to be from. The app can also be extended to provide results based on mood categories that the user wants the output to fall into.

Output: The app will output a list of similar TV shows along with the streaming platforms where you can watch the shows. Each show in the list will contain a small description, year, avg. episode length, rating, and possibly a small graph to show how seasons change in similarity. Along with this info the output will contain the ranking of the list. Also it will ask the user for feedback to check if the output is akin to what the user expected or wanted.

Use Cases: This app would be used to find similar (or dissimilar tv shows) given an input, and tell the user what platforms they are available on. The user will also be able to find shows based on their mood (happy, sad, thoughtful, scary, etc). Also by using additional TV shows option, they can find recommendations for group viewing.

Data Sources

- TV shows on Netflix, Prime Video, Hulu and Disney+ (Kaggle): https://www.kaggle.com/ruchi798/tv-shows-on-netflix-prime-video-hulu-and-disney
- TV Show Transcripts: https://tvshowtranscripts.ourboard.org/viewforum.php?f=139
- Web Series: Ultimate Collection (Kaggle): https://www.kaggle.com/amritvirsinghx/web-series-ultimate-edition
- IMDb Datasets: https://www.imdb.com/interfaces/
- The TV DB: https://thetvdb.com
- Web Scraper for IMBd and Rotten Tomatoes: https://github.com/masumrumi/imdb_rotten_web-scraping

Information Retrieval

The app will search for existing TV shows and their meta information like genre, age rating, reviews, year, availability, etc from the various data sources. The query will take in the name of the TV show the user wants the results of and other preferences like the genre or the length. The results will display a ranked list of similar TV shows with the streaming platforms they are available on.

Social Aspect

The app will look at the reviews posted by the previous viewers on platforms like Rotten Tomatoes, Google Reviews etc which would help us to better understand the moods and sentiments of the different shows and help us provide more personalized recommendations.

Machine Learning (optional)

We are looking to make the search more complex than just entering one TV show. We would like to allow users to add in multiple shows, genres, avg. episode length, etc to get more personalized recommendations. We are also thinking of adding in "moods" and "summaries" which could require more complex traversing of dataset and some machine learning aspect. ML could also come into play when weighting all of these inputs, when finding the results. Reviews and ratings could also help us with "sentiment analysis" and cope up with any missing data from datasets.