

# Web scraping, cloud storage and analysis

# Assignment 1 Deliverables

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## Part 1 Data collection

- Perform **Web Scraping** techniques on 100 entries
- Create a **data frame** suitable for scraped data
- Platform of choice – **Beautiful Soup**

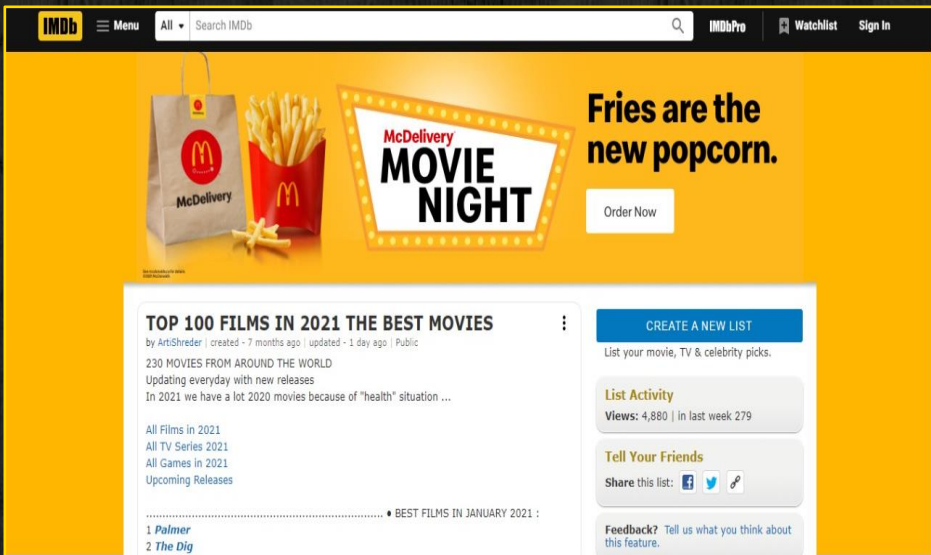
## Part 2 Data Storage

- Create **database** for using the data frame
- Platform of choice - **MongoDB**

## Part 3 Web Application Development

- Connecting the database to a **UI**
- Performing **Create, Read, Update & Delete** functions
- Platform of choice - **Flask**

## Data Source

Source Data – **Best 100 movies of 2021 by IMDb**

# Technologies & Libraries Used

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## Technologies

- Python
- Flask
- Bootstrap
- MongoDB Atlas

## Libraries

- Beautiful Soup
- PyMongo
- Flask
- pandas

# 1. Data Collection

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*Web Scraping*  
*Data Frame*



# HTML Inspection and tags finding

my rating : 8,5/10 \*\*\*\*\* great

watched : 22 august 2021

woow , great movie 8,5/10  
I'm just watched Hugh Jackman newest movie , Jason Momoa newest movie , Al Pacino newest movie and F9 , Black Widow and many more and U now what ? all these films are not great but when i saw this one - CODA i simply falling in love with this picture

Absolutely worth 2 see !!!!!!!!!!!!!!!!!!!!!!!  
One of the best films in this year ...

1. **CODA** (2021)  
PG-13 | 111 min | Drama, Music  
★ 8.1 ☆ Rate 7.5 Metascore  
As a CODA (Child of Deaf Adults) Ruby is the only hearing person in her deaf family. When the family's fishing business is threatened, Ruby finds herself torn between pursuing her love of music and her fear of abandoning her parents.  
Director: Sian Heder | Stars: Emilia Jones, Marlee Matlin, Troy Kotsur, Daniel Durant  
Votes: 17,921

2. **Nobody** (2021)  
R | 92 min | Action, Crime, Drama  
★ 7.4 ☆ Rate 6.4 Metascore  
A bystander who intervenes to help a woman being harassed by a group of men becomes the target of a vengeful drug lord.



# Web Scrapping

Platform used – BeautifulSoup

## ○ Source code used for web scrapping

```
web_scrapping.py x untitled
1 from urllib.request import urlopen as uReq
2 from bs4 import BeautifulSoup as soup
3 import pymongo
4 from pymongo import MongoClient
5 import pandas as pd
6
7
8 my_url = 'https://www.imdb.com/list/ls084462066/'
9
10 #opening up connection, grabbing the page
11
12 uClient = uReq(my_url)
13
14 page_html = uClient.read()
15
16 uClient.close()
17
18 #html parser
19
20 page_soup = soup(page_html, "html.parser")
21
22 # grabs each product
23
24 fab = page_soup.findAll("div",{"class":"list-item mode-detail"})
25
26 #exporting to CSV
27
28 filename = "products.csv"
29
30 f = open(filename, "w")
31
32 headers = "Film Title,IMDB Rating,Run Time,Genre,Short Narration,Director\n"
33
34 f.write(headers)
35
36
```

## ○ Source code used for web scraping

```
web_scraping.py x untitle
37
38
39 for fa in fab:
40
41     try:
42         title = fa.div.img["alt"]
43
44         rating = fa.findAll("span", {"class": "ipl-rating-star__rating"})[0].text
45
46         runtime = fa.findAll("span", {"class": "runtime"})[0].text
47
48         genre = fa.findAll("span", {"class": "genre"})[0].text.strip()
49
50         description = fa.findAll("p", {"class": ""})[0].text.strip()
51
52         director = fa.findAll("p", {"class": "text-muted text-small"})[1].a.text
53
54
55
56         print ( " Film Title : " + title)
57         print ( " IMDB Rating : " + rating)
58         print ( " Run Time : " + runtime)
59         print ( " Genre : " + genre)
60         print ( " Short Narration : " + description)
61         print ( " Director : " + director)
62
63         f.write(title.replace(", ", " ") + ", " + rating + ", " + runtime + ", " + genre.replace(", ", "|") + ", " + description.replace(", ", "|") + "\n")
64
65
66     except IndexError:
67         print ("_")
68
69
70 f.close()
71
72
```



# Web Scraping

.csv file created after scraping data

	A	B	C	D	E	F	G
1	Film Title	IMDB Rat	Run Time	Genre	Short Nar	Director	
2	CODA	8.1	111 min	Drama	M As a CODA	Sian Heder	
3	Nobody	7.4	92 min	Action	Cr A bystand	Ilya Naishuller	
4	Palmer	7.3	110 min	Drama	An ex-con	Fisher Stevens	
5	Seaspiracy	8.2	89 min	Document	Passionati	Ali Tabrizi	
6	Love Death	8.5	15 min	Animation	A collectiv	Scott Whyte	
7	Halston	7.5	240 min	Biography	The story	Ewan McGregor	
8	Time	8.3	59 min	Crime	Dr Eric is a pr	Sean Bean	
9	Joji	7.9	113 min	Crime	Dr Joji an en	Dileesh Pothan	
10	Minamata	7.8	115 min	Drama	War phot	Andrew Levitas	
11	The White Ti	7.1	125 min	Crime	Dr An ambitio	Ramin Bahrani	
12	Stillwater	6.6	139 min	Crime	Dr A father tr	Tom McCarthy	
13	The Dig	7.1	112 min	Biography	An archae	Simon Stone	
14	The Map of	6.8	98 min	Comedy	Two teen	Ian Samuels	
15	Wrath of Ma	7.2	119 min	Action	Cr The plot f	Guy Ritchie	
16	Nowhere Sp	7.6	96 min	Drama	When Joh	Uberto Pasolini	
17	Boss Level	6.8	94 min	Action	M A retired S	Joe Carnahan	
18	Loki	8.4		Action	Ac The merc		
19	Born a Cham	6.9	112 min	Action	Dr Mickey Ke	Alex Ranarivelo	
20	Paper Lives	6.7	96 min	Drama	Mehmet i Can	Ulkey	
21	Sweat	6.6	106 min	Drama	Three day	Magnus von Horn	
22	Chintu Ka Bir	7.8	80 min	Drama	W During US	Devanshu Singh	
23	Oxygen	6.5	100 min	Drama	F A woman	Alexandre Aja	
24	Silk Road	6	112 min	Crime	Dr Philosophi	Tiller Russell	
25	Long Story Sl	6.6	90 min	Comedy	Teddy wal	Josh Lawson	
26	Respect	6.6	145 min	Biography	Following	Liesel Tommy	
27	Mare of East	8.5	60 min	Crime	Dr A detecti	Kate Winslet	
28	Space Sweep	6.6	136 min	Action	Ac Set in the	Sung-hee Jo	
29	Shadow and	7.7		Action	Ac Dark force		
30	Kate	6.3	106 min	Action	Ac A female	Cedric Nicolas-Troyan	

	A	B	C	D	E	F	G
31	Mimi	8	132 min	Comedy	Mimi is int	Rajesh Bhatia	
32	The Whaler t	6.5	93 min	Drama	A young hi	Philipp Yuryev	
33	Behind Her E	7.2	298 min	Drama	M It follows	Simona Brown	
34	Kaagaz	7.5	109 min	Biography	A satirical	Satish Kaushik	
35	12 Mighty Or	6.9	118 min	History	S Haunted b	Ty Roberts	
36	Below Zero	6.2	106 min	Action	Ac On a lonel	Lluís Quilez	
37	Shang-Chi an	8	132 min	Action	Ac Shang-Chi	Destin Daniel Cretton	
38	Don't Tell a S	5.9	83 min	Drama	Ti Two thief	Alex McAulay	
39	Sweet Tooth	7.9		Action	Ac A boy whc		
40	A Quiet Place	7.3	97 min	Drama	H Following	John Krasinski	
41	My Son	6.1	95 min	Drama	M Driving in	Christian Carion	
42	Crazy About	6.6	102 min	Comedy	Truffle a m	Dani de la Orden	
43	Pig	7	92 min	Drama	Ti A truffle h	Michael Samoski	
44	The Courier	7.1	112 min	Drama	H Cold War	Dominic Cooke	
45	Skater Girl	6.6	107 min	Drama	F A When a te	Manjari Makijany	
46	Firebird	7.9	107 min	Drama	Ri At the hei	Peeter Rebane	
47	Jungle Cruise	6.6	127 min	Action	Ac Based on	Jaume Collet-Serra	
48	Girl in the Ba	6.4	88 min	Crime	Th Sarah is a	Elisabeth Röhm	
49	The Soul	6.6	130 min	Drama	M The found	Wei-Hao Cheng	
50	Limbo	7.2	104 min	Drama	Omar is a	Ben Sharrock	
51	The Wheel o	6	10 min	Action	Ac Set in a hij		
52	The Crying St	8	108 min	Drama	70% of inc	Marina Kunarova	
53	The Fallout	7.4	92 min	Drama	High scho	Megan Park	
54	Vacation Frie	6.3	103 min	Adventure	A couple r	Clay Tarver	
55	Zack Snyder's	8.1	242 min	Action	Ac Determine	Zack Snyder	
56	The Vault	6.4	118 min	Action	Ti Follows a	Jaume Balagueró	
57	The Suicide S	7.3	132 min	Action	Ac Supervillai	James Gunn	
58	The Little Thi	6.3	128 min	Crime	Dr Kern Coun	John Lee Hancock	
59	Cry Macho	6	104 min	Drama	Ti A one-tim	Clint Eastwood	
60	The Box	8.1	94 min	Drama	M A music pr	Yang Jeong-Woong	

	A	B	C	D	E	F	G
61	The Mauritan	7.5	129 min	Drama	Ti Mohamed	Kevin Macdonald	
62	Jolt	5.6	91 min	Action	Th A bouncer	Tanya Wexler	
63	Judas and th	7.5	126 min	Biography	Offered a	Shaka King	
64	No Man's La	5.1	114 min	Action	Ac When a vi	Conor Allyn	
65	Plantados	8.4	118 min	Drama	H The film n	Lilo Vilaplana	
66	I'm Your Mar	7.3	105 min	Comedy	I in order to	Maria Schrader	
67	Man in Love	7	115 min	Drama	Ri A small-ti	Chen-Hao Vin	
68	Zola	6.5	86 min	Comedy	(A stripper	Janicza Bravo	
69	No Time to D	163 min		Action	Ac James Bon	Cary Joji Fukunaga	
70	Top Gun: Ma			Action	Dr After more	Joseph Kosinski	
71	Lupin	7.5	45 min	Action	Cr Inspired b	Omar Sy	
72	Dune	8.5	155 min	Adventure	Feature ac	Denis Villeneuve	
73	The King's M			Action	Ac In the earl	Matthew Vaughn	
74	Aspirants	9.7	45 min	Drama	It is the st	Naveen Kasturia	
75	The Power of	6.5	126 min	Drama	Ri Charisma	Jane Campion	
76	The Green Kr	6.6	130 min	Adventure	A fantasy	David Lowery	
77	Major Grom:	6.3	136 min	Action	Ac Supercop	Oleg Trofim	
78	The Tomorrow	6.6	138 min	Action	Ac A future	Chris McKay	
79	No Sudden M	6.5	115 min	Crime	Dr A group of	Steven Soderbergh	
80	Rays and the	7.4	107 min	Animation	In a realm	Don Hall	
81	WandaVisio	8	350 min	Action	Cc Blends the	Elizabeth Olsen	
82	The Guilty	6.2	90 min	Crime	Dr A demote	Antoine Fuqua	
83	The Woman	5.7	100 min	Crime	Dr An agorap	Joe Wright	
84	Vicious Fun	6.6	101 min	Comedy	I Joel a cau	Cody Calahan	
85	Star Wars: Th	8		Animation	The 'bad B		
86	In the Height	7.4	143 min	Drama	M A film ver	Jon M. Chu	
87	Hitman's Wi	6.1	100 min	Action	Cc The bodyg	Patrick Hughes	
88	Cruella	7.4	134 min	Adventure	A live-act	Craig Gillespie	
89	Malcolm & M	6.7	106 min	Drama	Ri A director	Sam Levinson	
90	Luca	7.5	95 min	Animation	On the Ita	Enrico Casarosa	
91	Trollhunters	6.8	104 min	Animation	The heroes	Johane Matte	
92	Resident Ali	8.2	44 min	Comedy	I A crash-l	Alan Tudyk	
93	Don't Breathe	6.1	98 min	Horror	Ti The seque	Rodo Sayagues	
94	Holler	6.2	90 min	Drama	To pay for	Nicole Riegel	
95	The Conjurin	6.3	112 min	Horror	M The Warre	Michael Chaves	
96	Them	7.3	45 min	Drama	H A Black fa	Deborah Ayrinde	
97	A Dark Foe	6.7	114 min	Crime	Dr A guilt-rid	Maria Gabriela Cardenas	
98	Akilla's Esc	5.1	90 min	Crime	Dr In a crime	Charles Officer	
99	Annette	6.4	141 min	Drama	M A stand-up	Leos Carax	
100	The Colony	5.4	104 min	Sci-Fi	Thi Set in the	Tim Fehlbaum	
101	Those Who V	6	100 min	Action	Cr A teenage	Taylor Sheridan	
102							

# Data Frame

- Importing .csv to data frame & sorting the data to MongoDB

```
web_scraping.py  untitled
61     print (" Director : " + director)
62
63     f.write(title.replace(", ", " ") + "," + rating + "," + runtime + "," + genre.replace(", ", "|") + "," + description.replace(", ", "|"))
64
65
66     except IndexError:
67         print ("_")
68
69
70 f.close()
71
72
73
74 # Import CSV Files into Pandas Dataframes
75
76
77 df = pd.read_csv ('products.csv', encoding = "ISO-8859-1")
78
79 df
80
81
82 # connecting to mongo DB and storing the data
83
84 cluster = MongoClient("mongodb+srv://testuser:testuser123@cluster0.dj0nr.mongodb.net/myFirstDatabase?retryWrites=true&w=majority")
85
86 db = cluster["testDb"]
87
88 collection = db["testData"]
89
90 collection.insert_many(df.to_dict('records'))
91
```

# Web Scarping

## Data frame created using the .csv file

Command Prompt - python

```
C:\Users\Jeeva\Documents>python
Python 3.9.7 (tags/v3.9.7:1016ef3, Aug 30 2021, 20:19:38) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import pandas as pd
>>> df = pd.read_csv('products.csv', encoding = "ISO-8859-1")
>>> df
```

	Film Title	IMDB Rating	Run Time	Genre	Short Narration	Director
0	CODA	8.1	111 min	Drama  Music	As a CODA (Child of Deaf Adults) Ruby is the o...	Sian Heder
1	Nobody	7.4	92 min	Action  Crime  Drama	A bystander who intervenes to help a woman bei...	Ilya Naishuller
2	Palmer	7.3	110 min	Drama	An ex-convict strikes up a friendship with a b...	Fisher Stevens
3	Seaspiracy	8.2	89 min	Documentary  Adventure	Passionate about ocean life a filmmaker sets ...	Ali Tabrizi
4	Love Death & Robots	8.5	15 min	Animation  Short  Action	A collection of animated short stories that sp...	Scott Whyte
..	...	...	...	...	...	...
95	A Dark Foe	6.7	114 min	Crime  Drama  Horror	A guilt-ridden FBI agent stranded in the pain...	Maria Gabriela Cardenas
96	Akilla's Escape	5.1	90 min	Crime  Drama	In a crime-noir about the urban child-soldier ...	Charles Officer
97	Annette	6.4	141 min	Drama  Musical  Romance	A stand-up comedian and his opera singer wife ...	Leos Carax
98	The Colony	5.4	104 min	Sci-Fi  Thriller	Set in the distant future a female astronaut ...	Tim Fehlbaum
99	Those Who Wish Me Dead	6	100 min	Action  Crime  Drama	A teenage murder witness finds himself pursued...	Taylor Sheridan

```
[100 rows x 6 columns]
>>>
```

## 2. Data Storage

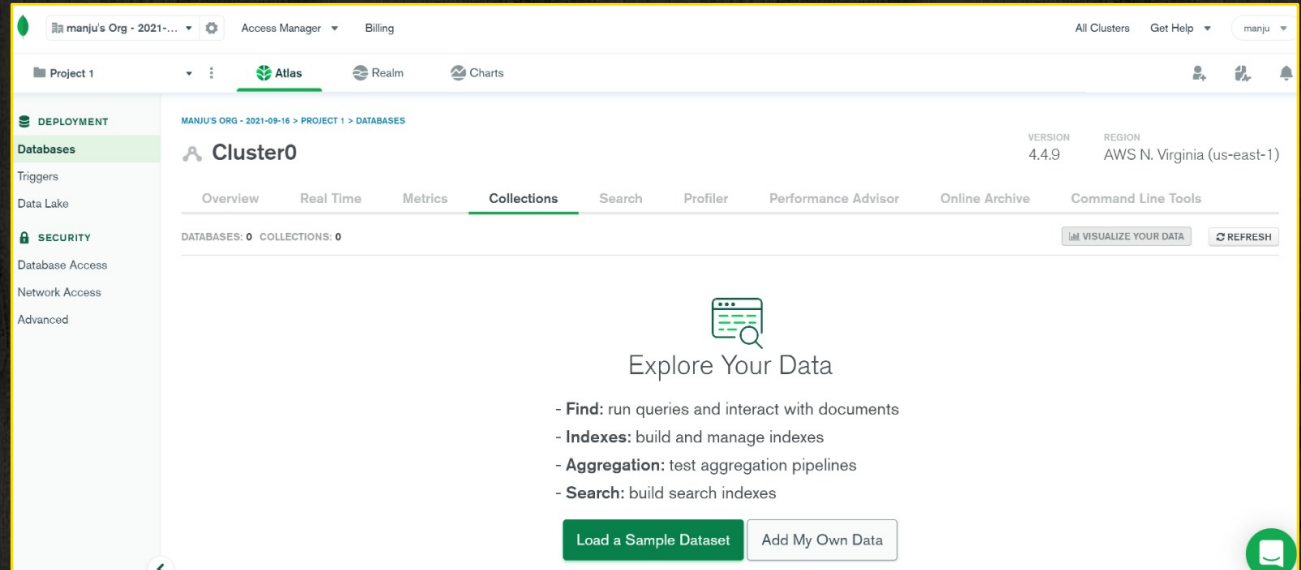
---

*Database Creation*

# Database Creation

## Platform used - MongoDB

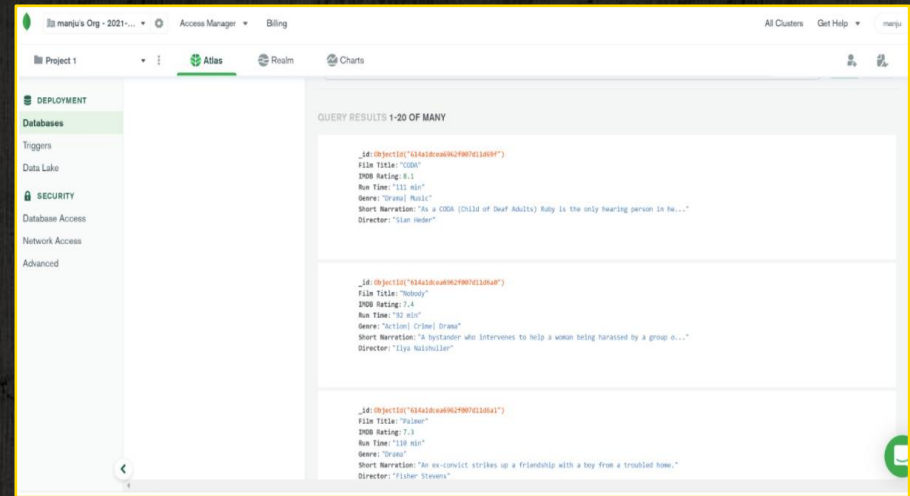
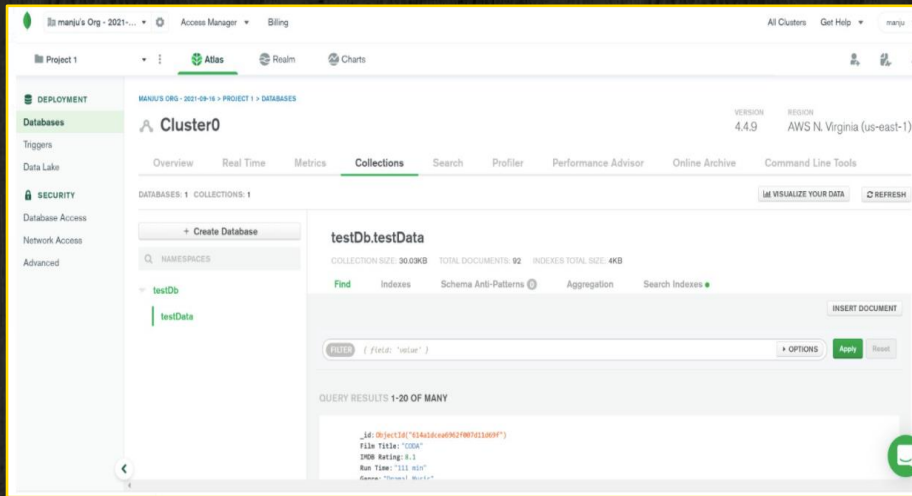
- MongoDB Atlas – before web scraping





# Database Creation

- MongoDB Atlas – after loading web scraped data



# 3. Web Application Development

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*User Interface*

# **Web App Development**

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## User Interface

- View – view all available information available on the database
- Add – add new records into the database
- Edit – make changes to existing records on the database
- Delete – remove existing records from the database

# Web App Development

## Platform used - Flask

### ○ Downloading .csv file into IDE

# Web App Development

## UI - View

### ○ View Page

IMDB Top 100 films in 2021 - The Best Movies

[Add Movie](#)

Film Title	IMDB Rating	Run Time	Genre	Short Narration	Director		
CODA	8.1	111 min	Drama  Music	As a CODA (Child of Deaf Adults) Ruby is the only hearing person in her deaf family. When the family's fishing business is threatened Ruby finds herself torn between pursuing her love of music and her fear of abandoning her parents.	Sian Heder	<a href="#">Edit</a>	<a href="#">Delete</a>
Nobody	7.4	92 min	Action  Crime  Drama	A bystander who intervenes to help a woman being harassed by a group of men becomes the target of a vengeful drug lord.	Ilya Naishulier	<a href="#">Edit</a>	<a href="#">Delete</a>
Palmer	7.3	110 min	Drama	An ex-convict strikes up a friendship with a boy from a troubled home.	Fisher Stevens	<a href="#">Edit</a>	<a href="#">Delete</a>
Seaspiracy	8.2	89 min	Documentary  Adventure	Passionate about ocean life a filmmaker sets out to document the harm that humans do to marine species - and uncovers alarming global corruption.	Ali Tabrizi	<a href="#">Edit</a>	<a href="#">Delete</a>
Love Death & Robots	8.5	15 min	Animation  Short  Action	A collection of animated short stories that span various genres including science fiction fantasy horror and comedy.	Scott Whyte	<a href="#">Edit</a>	<a href="#">Delete</a>
Halston	7.5	240 min	Biography  Drama	The story of a man who leverages his single invented name into a worldwide fashion empire that's synonymous with luxury sex status and fame literally defining the era.	Ewan McGregor	<a href="#">Edit</a>	<a href="#">Delete</a>
Time	8.3	59 min	Crime  Drama	Eric is a prison officer who tries to protect those in his charge. When one of the most dangerous inmates identifies his weakness Eric faces an impossible choice between his principles and his love for his family.	Sean Bean	<a href="#">Edit</a>	<a href="#">Delete</a>
Joji	7.9	113 min	Crime  Drama	Joji an engineering dropout and the youngest son of a rich family lives with his aspirations of becoming super wealthy. Driven by greed and blind ambition he decides to execute his plans following an unexpected event	Dileesh Pothan	<a href="#">Edit</a>	<a href="#">Delete</a>



# Web App Development

## ○ view.html Code

```
templates > view.html > ...  
1  {% extends 'layout.html' %}  
2  {% block body %}  
3    <h3>IMDB Top 100 films in 2021 - The Best Movies</h3>  
4    <br>  
5    <br>  
6    <a class="btn btn-success" href="/add"> Add Movie</a>  
7    <table class="table table-striped">  
8      <tr>  
9        <th>Film Title</th>  
10       <th>IMDB Rating</th>  
11       <th>Run Time</th>  
12       <th>Genre</th>  
13       <th>Short Narration</th>  
14       <th>Director</th>  
15     </tr>  
16     <tr>  
17       <td>{{movie.Film Title}}</td>  
18       <td>{{movie.IMDB Rating}}</td>  
19       <td>{{movie.Run Time}}</td>  
20       <td>{{movie.Genre}}</td>  
21       <td>{{movie.Short Narration}}</td>  
22       <td>{{movie.Director}}</td>  
23     </tr>  
24     <tr>  
25       <td>{{movie.Film Title}}</td>  
26       <td>{{movie.IMDB Rating}}</td>  
27       <td>{{movie.Run Time}}</td>  
28       <td>{{movie.Genre}}</td>  
29       <td>{{movie.Short Narration}}</td>  
30       <td>{{movie.Director}}</td>  
31     </tr>  
32     <tr>  
33       <td>{{movie.Film Title}}</td>  
34       <td>{{movie.IMDB Rating}}</td>  
35       <td>{{movie.Run Time}}</td>  
36       <td>{{movie.Genre}}</td>  
37       <td>{{movie.Short Narration}}</td>  
38       <td>{{movie.Director}}</td>  
39     </tr>  
40   </table>  
41 %}
```

## ○ View Flask Code

```
app.py x view.html add.html edit.html web_scraping.py products.csv test.py app.cpython-38.pyc  
app.py  
1  from flask import Flask, render_template, flash, redirect, url_for, session, request, logging  
2  import pymongo  
3  from pymongo import MongoClient  
4  app = Flask(__name__)  
5  from bson.objectid import ObjectId  
6  
7  cluster = MongoClient("mongodb+srv://testuser:testuser123@cluster0.dj0nr.mongodb.net/myFirstDatabase?retryWrites=true&w=majority")  
8  db = cluster["testDb"]  
9  collection = db["testData"]  
10  
11  
12  
13  # View  
14  @app.route('/')  
15  def index(methods=['POST','GET']):  
16    movies = collection.find()  
17    return render_template('view.html',movies=movies)  
18
```

# Web App Development

---

## UI - Add

### ○ Add Page

Please enter the below details to add a movie

Film Title:

IMDB Rating:

Run Time:

Genre:

Short Narration:

Director:

# Web App Development

## ○ Entering data to Add Page

Please enter the below details to add a movie

Film Title:

IMDB Rating:

Run Time:

Genre:

Short Narration:

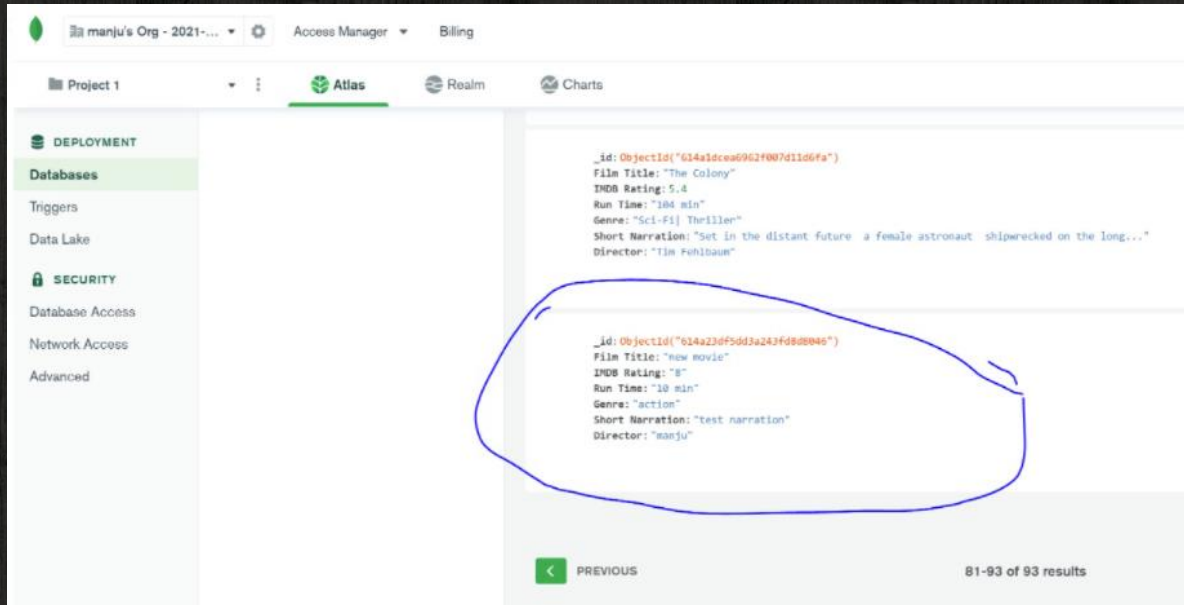
Director:

## ○ New Movie Updated on Add Page

the Titans	min	Adventure	fight the Arcane Order for control over the magic that binds them all.		
Resident Alien	8.2	44 min	Comedy  Drama  Mystery	A crash-landed alien named Harry who takes on the identity of a small-town Colorado doctor and slowly begins to wrestle with the moral dilemma of his secret mission on Earth.	Alan Tudyk Edit Delete
Don't Breathe 2	6.1	98 min	Horror  Thriller	The sequel is set in the years following the initial deadly home invasion where Norman Nordstrom (Stephen Lang) lives in quiet solitude until his past sins catch up to him.	Rodo Sayagues Edit Delete
Holler	6.2	90 min	Drama	To pay for her education and the chance of a better life a young woman joins a dangerous scrap metal crew.	Nicole Riegel Edit Delete
The Conjuring: The Devil Made Me Do It	6.3	112 min	Horror  Mystery  Thriller	The Warrens investigate a murder that may be linked to a demonic possession.	Michael Chaves Edit Delete
Them	7.3	45 min	Drama  Horror  Thriller	A Black family moves to an all-white Los Angeles neighborhood where malevolent forces next door and otherworldly threaten to taunt ravage and destroy them.	Deborah Ayorinde Edit Delete
A Dark Foe	6.7	114 min	Crime  Drama  Horror	A guilt-ridden FBI agent stranded in the painful memory of the abduction of his sister suffers from a rare condition known as Nyctophobia an irrational fear of the dark and will have to... See full summary »	Maria Gabriela Cardenas Edit Delete
Akilla's Escape	5.1	90 min	Crime  Drama	In a crime-noir about the urban child-soldier Akilla Brown captures a fifteen-year-old Jamaican boy in the aftermath of an armed robbery. Over one gruelling night Akilla confronts a cycle of generational violence he thought he escaped.	Charles Officer Edit Delete
Annette	6.4	141 min	Drama  Musical  Romance	A stand-up comedian and his opera singer wife have a 2 year old daughter with a surprising gift.	Leos Carax Edit Delete
The Colony	5.4	104 min	Sci-Fi  Thriller	Set in the distant future a female astronaut shipwrecked on the long-decimated Earth must decide the fate of the wasteland's remaining populace.	Tim Fehlbauum Edit Delete
new movie	8	10 min	action	test narration	manju Edit Delete

# Web App Development

## ○ New Movie Updated on MongoDB



# Web App Development

○ add.html Code

```
app.py view.html add.html edit.html web_scraping.py products.csv
templates > add.html > form > div.form-group > input#ShortNarration.form-control
1
2
3
4
5 {% block body %}
6 <h3>Please enter the below details to add a movie </h3> <br><br><br>
7 <form method="POST" action="{url_for('add_movie')}}">
8   <div class="form-group">
9     <label for="usr">Film Title:</label>
10    <input type="text" class="form-control" name="FilmTitle" id="FilmTitle">
11  </div>
12  <div class="form-group">
13    <label for="usr">IMDB Rating:</label>
14    <input type="text" class="form-control" name="IMDBRating" id="IMDBRating">
15  </div>
16  <div class="form-group">
17    <label for="usr">Run Time:</label>
18    <input type="text" class="form-control" name="RunTime" id="RunTime">
19  </div>
20  <div class="form-group">
21    <label for="usr">Genre:</label>
22    <input type="text" class="form-control" name="Genre" id="Genre">
23  </div>
24  <div class="form-group">
25    <label for="usr">Short Narration:</label>
26    <input type="text" class="form-control" name="ShortNarration" id="ShortNarration">
27  </div>
28  <div class="form-group">
29    <label for="usr">Director:</label>
30    <input type="text" class="form-control" name="Director" id="Director">
31  </div>
32  <div class="form-group">
33    <input class="btn btn-primary" type="submit" value="Add movie">
34  </div>
35 </form>
36 {% endblock %}
37
38 PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
39 127.0.0.1 - - [21/Sep/2021 14:23:54] "GET /add HTTP/1.1" 200 -
```

○ Add Flask Code

```
app.py x view.html add.html edit.html web_scraping.py products.csv test.py app.cpython-38.pyc delete.html
45 return redirect(url_for('index'))
46
47 # Add Movie
48 @app.route('/add_movie', methods=['POST', 'GET'])
49 def add_movie():
50     items = collection.find().count()
51     print(items)
52     FilmTitle = request.form.get('FilmTitle')
53     IMDBRating = request.form.get('IMDBRating')
54     RunTime = request.form.get('RunTime')
55     Genre = request.form.get('Genre')
56     ShortNarration = request.form.get('ShortNarration')
57     Director = request.form.get('Director')
58     mylist = [
59         {'Film Title': FilmTitle, 'IMDB Rating': IMDBRating, 'Run Time': RunTime, 'Genre': Genre, 'Short Narration': ShortNarration, 'Director': Director}
60     ]
61
62     collection.insert_many(mylist)
63     return redirect(url_for('index'))
```



# Web App Development

---

## UI - Edit

- Edit Page

Edit the movie details

Film Title	IMDB Rating	Run Time	Genre	Short Narration	Director	
<input type="text" value="CODA"/>	<input type="text" value="8.1"/>	<input type="text" value="111 min"/>	<input type="text" value="Drama  Music"/>	<input type="text" value="As a CODA (Child of E"/>	<input type="text" value="Sian Heder"/>	<input type="button" value="Save"/>

# Web App Development

○ Edit Movie Name to CODA edit

Edit the movie details

Film Title	IMDB Rating	Run Time	Genre	Short Narration	Director	
<input type="text" value="CODA edit"/>	<input type="text" value="8.1"/>	<input type="text" value="111 min"/>	<input type="text" value="Drama  Music"/>	<input type="text" value="As a CODA (Child of Deaf Adults)"/>	<input type="text" value="Sian Heder"/>	<input type="button" value="Save"/>

○ CODA edit Updated on Edit Page

IMDB Top 100 films in 2021 - The Best Movies

[Add Movie](#)

Film Title	IMDB Rating	Run Time	Genre	Short Narration	Director	
<a href="#">CODA edit</a>	8.1	111 min	Drama  Music	As a CODA (Child of Deaf Adults) Ruby is the only hearing person in her deaf family. When the family's fishing business is threatened Ruby finds herself torn between pursuing her love of music and her fear of abandoning her parents.	Sian Heder	<a href="#">Edit</a> <a href="#">Delete</a>
Nobody	7.4	92 min	Action  Crime  Drama	A bystander who intervenes to help a woman being harassed by a group of men becomes the target of a vengeful drug lord.	Ilya Naishuller	<a href="#">Edit</a> <a href="#">Delete</a>
Palmer	7.3	110 min	Drama	An ex-convict strikes up a friendship with a boy from a troubled home.	Fisher Stevens	<a href="#">Edit</a> <a href="#">Delete</a>
Seaspiracy	8.2	89 min	Documentary  Adventure	Passionate about ocean life a filmmaker sets out to document the harm that humans do to marine species - and uncovers alarming global corruption.	Ali Tabrizi	<a href="#">Edit</a> <a href="#">Delete</a>
Love Death & Robots	8.5	15 min	Animation  Short  Action	A collection of animated short stories that span various genres including science fiction fantasy horror and comedy.	Scott Whyte	<a href="#">Edit</a> <a href="#">Delete</a>
Halston	7.5	240 min	Biography  Drama	The story of a man who leverages his single invented name into a worldwide fashion empire that's synonymous with luxury sex status and fame literally defining the era.	Ewan McGregor	<a href="#">Edit</a> <a href="#">Delete</a>

# Web App Development

## ○ CODA edit Updated on MongoDB

The screenshot displays the MongoDB Atlas web interface. The top navigation bar includes 'manju's Org - 2021-...', 'Access Manager', 'Billing', 'All Clusters', 'Get Help', and a user profile 'manju'. The left sidebar shows 'Project 1' and a navigation menu with 'DEPLOYMENT', 'Databases', 'Triggers', 'Data Lake', 'SECURITY', 'Database Access', 'Network Access', and 'Advanced'. The main content area is titled 'testDb.testData' and shows 'COLLECTION SIZE: 30.19KB', 'TOTAL DOCUMENTS: 93', and 'INDEXES TOTAL SIZE: 36KB'. Below this, there are tabs for 'Find', 'Indexes', 'Schema Anti-Patterns', 'Aggregation', and 'Search Indexes'. A 'FILTER' bar contains the query '{ field: "value" }'. The 'QUERY RESULTS 1-20 OF MANY' section displays a single document with the following fields: '\_id: ObjectId("61421dce0962f007d11d09f")', 'title: "CODA edit"', 'IMDB Rating: "8.1"', 'Run Time: "113 min"', 'Genre: "Drama| Music"', 'Short Narration: "As a CODA (Child of Deaf Adults) Ruby is the only hearing person in he..."', and 'Director: "Sian Heder"'. The 'title' field is highlighted in blue.

# Web App Development

○ edit.html Code

○ Edit Flask Code

```
1 {% extends 'layout.html' %}
2 {% block body %}
3 <form action="{url_for('edit', id=movie.id)}" method="post">
4 <h3>Edit the movie details</h3>
5 <br>
6 <br>
7 <table class="table table-striped">
8 <tr><th>File Title</th><th>IMDB Rating</th><th>Run Time</th><th>Genre</th><th>Short Narration</th><th>Director</th></tr>
9 </tr>
10 <tr>
11 <td>
12 <input type="text" class="form-control" name="FileTitle" id="FileTitle" value="{{movie['File Title']}}">
13 </td>
14 <td>
15 <input type="text" class="form-control" name="IMDBRating" id="IMDBRating" value="{{movie['IMDB Rating']}}">
16 </td>
17 <td>
18 <input type="text" class="form-control" name="RunTime" id="RunTime" value="{{movie['Run Time']}}">
19 </td>
20 <td><input type="text" class="form-control" name="Genre" id="Genre" value="{{movie['Genre']}}"></td>
21 <td>
22 <input type="text" class="form-control" name="ShortNarration" id="ShortNarration" value="{{movie['Short Narration']}}">
23 </td>
24 <td>
25 <input type="text" class="form-control" name="Director" id="Director" value="{{movie['Director']}}">
26 </td>
27 <td>
28 <input type="submit" value="Save" class="btn btn-default pull-right">
29 </td>
30 </tr>
31 </table>
32 </form>
33 {% endblock %}
```

```
42 collection.insert_many(mylist)
43 return redirect(url_for('index'))
44
45 # Edit Movie
46 @app.route('/edit_movie/<string:id>', methods=['POST', 'GET'])
47 def edit_movie(id):
48     print(id)
49     myquery = { '_id': id }
50     print(myquery)
51     documents = collection.find()
52     for document in documents:
53         if document['_id'] == ObjectId(id):
54             movie = document
55     print(movie)
56     return render_template("edit.html", movie=movie)
57
58 # Update
59 @app.route('/edit/<string:id>', methods=['POST', 'GET'])
60 def edit(id):
61     id = id
62     FileTitle = request.form.get('FileTitle')
63     IMDBRating = request.form.get('IMDBRating')
64     RunTime = request.form.get('RunTime')
65     Genre = request.form.get('Genre')
66     ShortNarration = request.form.get('ShortNarration')
67     Director = request.form.get('Director')
68     myquery = { '_id': ObjectId(id) }
69     print(myquery)
70     newvalues = { '$set': { 'File Title': FileTitle, 'IMDB Rating': IMDBRating, 'Run Time': RunTime, 'Genre': Genre, 'Short Narration': ShortNarration, 'Director': Director } }
71     print(newvalues)
72     collection.update_one(myquery, newvalues)
73     return redirect(url_for('index'))
```

# Web App Development

## Function - Delete

○ Page Before Deleting

○ DB Before Deleting

### IMDB Top 100 films in 2021 - The Best Movies

Add Movie

Film Title	IMDB Rating	Run Time	Genre	Short Narration	Director		
<a href="#">CODA edit</a>	8.1	111 min	Drama  Music	As a CODA (Child of Deaf Adults) Ruby is the only hearing person in her deaf family. When the family's fishing business is threatened Ruby finds herself torn between pursuing her love of music and her fear of abandoning her parents.	Sian Heder	Edit	Delete
Nobody	7.4	92 min	Action  Crime  Drama	A bystander who intervenes to help a woman being harassed by a group of men becomes the target of a vengeful drug lord.	Ilya Naishuller	Edit	Delete
Palmer	7.3	110 min	Drama	An ex-convict strikes up a friendship with a boy from a troubled home.	Fisher Stevens	Edit	Delete
Seaspiracy	8.2	89 min	Documentary  Adventure	Passionate about ocean life a filmmaker sets out to document the harm that humans do to marine species - and uncovers alarming global	Ali Tabrizi	Edit	Delete

The screenshot shows the MongoDB Atlas web interface. The top navigation bar includes 'manju's Org - 2021...', 'Access Manager', 'Billing', 'All Clusters', 'Get Help', and 'manju'. The left sidebar has 'Project 1' and navigation icons for 'Atlas', 'Realm', and 'Charts'. The main panel is titled 'testDb.testData' and shows 'COLLECTION SIZE: 30.19KB', 'TOTAL DOCUMENTS: 40', and 'INDEXES TOTAL SIZE: 39KB'. It includes tabs for 'Find', 'Indexes', 'Schema', 'Anti-Patterns', 'Aggregation', and 'Search Indexes'. A query filter is set to '{ field: "value" }'. The 'QUERY RESULTS 1-20 OF MANY' section displays two documents in JSON format: one for 'CODA' and one for 'Nobody'.



# Web App Development

## ○ Page After Deleting

### IMDB Top 100 films in 2021 - The Best Movies

Add Movie						
Film Title	IMDB Rating	Run Time	Genre	Short Narration	Director	
Nobody	7.4	92 min	Action  Crime  Drama	A bystander who intervenes to help a woman being harassed by a group of men becomes the target of a vengeful drug lord.	Ilya Naishuller	<a href="#">Edit</a> <a href="#">Delete</a>
Palmer	7.3	110 min	Drama	An ex-convict strikes up a friendship with a boy from a troubled home.	Fisher Stevens	<a href="#">Edit</a> <a href="#">Delete</a>
Seaspiracy	8.2	89 min	Documentary  Adventure	Passionate about ocean life a filmmaker sets out to document the harm that humans do to marine species - and uncovers alarming global corruption.	Ali Tabrizi	<a href="#">Edit</a> <a href="#">Delete</a>
Love Death & Robots	8.5	15 min	Animation  Short  Action	A collection of animated short stories that span various genres including science fiction fantasy horror and comedy.	Scott Whyte	<a href="#">Edit</a> <a href="#">Delete</a>
Halston	7.5	240 min	Biography  Drama	The story of a man who leverages his single invented name into a worldwide fashion empire that's synonymous with luxury sex status and fame literally defining the era.	Ewan McGregor	<a href="#">Edit</a> <a href="#">Delete</a>
Time	8.3	59 min	Crime  Drama	Eric is a prison officer who tries to protect those in his charge. When one of the most dangerous inmates identifies his weakness Eric faces an impossible choice between his principles and his love for his family.	Sean Bean	<a href="#">Edit</a> <a href="#">Delete</a>
Joji	7.9	113 min	Crime  Drama	Joji an engineering dropout and the youngest son of a rich family lives with his aspirations of becoming super wealthy. Driven by greed and blind ambition he decides to execute his plans following an unexpected event in the family.	Dileesh Pothan	<a href="#">Edit</a> <a href="#">Delete</a>
Minamata	7.8	115 min	Drama	War photographer W. Eugene Smith travels back to Japan where he documents the devastating effect of mercury poisoning in coastal	Andrew Levitas	<a href="#">Edit</a> <a href="#">Delete</a>

## ○ DB After Deleting

The screenshot shows the MongoDB Atlas web interface. The top navigation bar includes 'MANU'S Org - 2021-09-16', 'Access Manager', 'Billing', 'AI Clusters', 'Get Help', and a user profile. The main header shows 'Project 1' and 'Cluster0' with version 4.4.9 and region AWS N. Virginia (us-east-1). The left sidebar has tabs for 'DEPLOYMENT', 'Security', and 'Work Access'. The 'DEPLOYMENT' tab is active, showing 'Cluster0' and 'testDb'. The 'testDb' collection is selected, showing a collection size of 29.81KB, 62 total documents, and 36KB total index size. The 'Find' tab is active, showing a query result for the document with '\_id' 'testDb.testData'. The document details are shown in a JSON format, including fields like 'File Title', 'Run Time', 'Genre', 'Short Narration', and 'Director'.

# Web App Development

---

## ○ delete.html Code

```
        </form>
      </td>
    <td>
      .....<form action="{url_for('delete_movie', id=movie._id)}" method="post">
      .....<input type="hidden" name="_method" value="DELETE">
      .....<input type="submit" value="Delete" class="btn btn-danger">
      .....</form>
    </td>
  </tr>
  {% endfor %}
</table>
{% endblock %}
```

## ○ Delete Flask Code

```
33 # Delete Movie
34 @app.route('/delete_movie/<string:id>', methods=['POST', 'GET'])
35 def delete_movie(id):
36     print(id)
37     myquery = { "_id": ObjectId(id) }
38     print(myquery)
39     collection.delete_one(myquery)
40     return redirect(url_for('index'))
41
```

# References

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[https://www.google.com/search?q=imdb+logo&rlz=1C1CHBF\\_enCA972CA972&source=lnms&tbm=isch&sa=X&ved=2ahUKEwieksyU0JDzAhW7GVkFHS\\_fDVIQ\\_AUoAXoECAEQAw&biw=1280&bih=632&dp=1.5](https://www.google.com/search?q=imdb+logo&rlz=1C1CHBF_enCA972CA972&source=lnms&tbm=isch&sa=X&ved=2ahUKEwieksyU0JDzAhW7GVkFHS_fDVIQ_AUoAXoECAEQAw&biw=1280&bih=632&dp=1.5)

<https://www.slidescarnival.com/prospero-free-presentation-template/91>

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*Thank You!*