CS4.301: Data and Applications (Monsoon 2022)

Homework - 1

Submission Deadline: Oct 10, 2022

Assigned Task

Below is a list of movies/ TV show episodes, numbered 1 to 8, along with the concerned TAs.

#	Movie/ TV Show episode	Assigned TAs
1	Monsters, Inc.	Aashwin
2	Ford v Ferrari	Ayush
3	John Wick	Swetha
4	Harry Potter	Sri Loukya Pappula, Venika
5	Star Wars (any movie)	Priyanshul, Arvindh
6	The Karate Kid	Devesh
7	Rick and Morty (S02E05: Get Schwifty)	Abhijeeth Singam
8	Avengers (any movie)	Abhishek, Soveet

Each team has been assigned one movie/episode according to the following criteria.

> **# Assigned = (Team_Number % 8) + 1**

For example: if your team number is 12, then the movie/episode assigned to your team will be 5.

What do you have to do?

You must produce a mini-world that you think exists (or could exist) in that respective movie and create a document with the following details.

1. Introduction to the mini-world
2. Purpose of the database
3. Users of the database
4. Applications of the database
5. Database Requirements
    a. Assumptions
    b. Strong Entity types
    c. Weak entity types
    d. Relationship types
        i. Degree
        ii. Participating entity types
        iii. Cardinality ratio/ Participation constraint/ (min, max) constraint
    e. Degree > 2 relationship types
6. Functional Requirements
7. Summary

You are welcome to add anything else that you deem relevant.

Submission Guidelines

- One member per team must upload a PDF document (***<teamnumber>.pdf***).
- The requirements document can be **at most three pages**.

Note

- Before starting with the requirements document, it is recommended to get your mini-world checked by the TA assigned to that movie/episode.
- The mini-world needs to be relevant to the movie/episode and (if possible) extend its context.
- There will be bonus marks for novelty.
- You do not need to pay for access to movies/episodes if you do not have access to OTT platforms; you can always access them for free. **We** do not **recommend torrenting**.
- If you cannot access the movies, reach out to the TAs – they will hook you up with it!
- If there are multiple requests for a movie, we would also be willing to stream it in a lecture hall.