

CS4.301: Data and Applications **(Monsoon 2023)**

Homework - 1

**Submission Deadline: Oct
12, 2023**

Assigned Task

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

#	<i>Movie/ TV Show(any movie/episode)</i>	<i>Assigned TAs</i>
<i>1</i>	One Piece	<i>Siddharth</i>
<i>2</i>	Squid Game	<i>Ashmit</i>
<i>3</i>	Modern Family	<i>Ishan</i>
<i>4</i>	FRIENDS	<i>Ronak</i>
<i>5</i>	Suits	<i>Ayush</i>
<i>6</i>	Prison Break	<i>Akshit</i>
<i>7</i>	Mission Impossible	<i>Raghav, Balakumar</i>
<i>8</i>	Lord of the Rings	<i>Ankith, Rohan</i>

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

$$\# \text{ Assigned} = (\text{Team_Number} \% 8) + 1$$

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!
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