CS4.301: Data and Applications (Monsoon 2024)

Homework - 1

Submission Deadline: Oct 9, 2024

Assigned Task

Below is a list of movies, numbered 1 to 6. Each movie has been assigned specific TAs.

#	Movie	Assigned TAs
1	**The Conjuring (any movie)**	Anirudh, Devika
2	**Sherlock Holmes: A Game of Shadows**	Anika, Chetan
3	**Kung Fu Panda 2**	Anish, Tejas
4	**Inside Out 2**	Debangan, Pratishtha
5	**The Dark Knight**	Aditya, Shailender
6	**Rush Hour**	Hemang, Rohan

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

> **# Assigned = (Team_Number % 6) + 1**

For example: if your team number is 10, then the movie assigned to your team will be #5. **Team 0 is free to choose any movie from the list.**

Task

You must produce a mini-world that you think exists (or could exist) in your assigned 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. 5-6 Strong Entity types
   c. 2-3 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 TAs assigned to that movie
- The mini-world needs to be relevant to the movie and (if possible) extend its context.
- There will be bonus marks for novelty.
- If you cannot access the movies, please reach out on the TA mailing list.
- Only typed submissions are allowed. **Handwritten submissions are NOT allowed.**