University of British Columbia, Vancouver
Department of Computer Science

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What is the domain of the application?

The domain of the application is the video game industry. It is designed to manage and organize information related to video games, including details about games, studios, platforms, genres, and the individuals involved in game creation. Games are being released at an increasing pace, and there is a need for clear organization of games. The application aims to provide a comprehensive database for game enthusiasts, researchers, and industry professionals to easily access and analyze data related to video game development, publishing, and distribution.

What aspects of the domain are modelled by the database?

- **Games**: This entity captures details about each video game, such as the game's ID, name, year of release, budget, and rating.
- **Studios**: This entity represents the studios that develop games, including attributes like the studio's name and the country it is based in.
- **Publishers and Distributors**: These entities capture information about companies that publish and distribute games, with attributes such as company name and the regions they operate in.
- **Platforms**: This entity includes the different platforms on which games can be played, with attributes like platform name.
- **Game Persons**: This entity models individuals involved in game development, including their name, date of birth, role, and a unique identifier.
- **Genres**: This entity captures the different genres of games, with each genre having a name.
- **Game Review**: This entity captures the review left for a video game, detailing the review description and the author.
- **Relationships**: The database also models relationships between these entities, such as which studio developed a game, which distributor distributes a game, and which platform a game runs on.

What functionality will the database provide?

- Data Storage
- Fundamental CRUD operations to add to the database, edit entries, remove entries, and search for games
- Users will be able to search for games of interest, or filter games based on people, studios, publishers, genres, and more
- If time permits, a recommender system

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What platform will the final project be on? What is your application technology stack?

- Database: OracleDB
- Backend: NodeJS / Express
- Frontend: React

An ER diagram for the database that your application will use.

country

CID

name

Company

ISA

User may be interested in what other games an individual has been involved with

worksAt

regions

Studio

Distributor

Publisher

Games may have multiple developers, distributors, and publishers, hence the many-to-many cardinality..

year

Developed

year

Published

Distributes

platformName

GID

name

Platform

runsOn

Game

year

budget

Published, distributes, developed, runs on, worked on, inCategory require total participation because all games
- Have a developer (individual or organization)
- Have a publisher (could be self published)
- Distributed somewhere (steam, itch.io, playstation store)
- Runs on some hardware
- Have people who worked on it
- Have a genre

inCategory

rating

workedOn

Genre

GamePerson

This would allow users to easily filter for games by genre.

genreName

GameReview

DOB

name

GPID

role

score

author

description