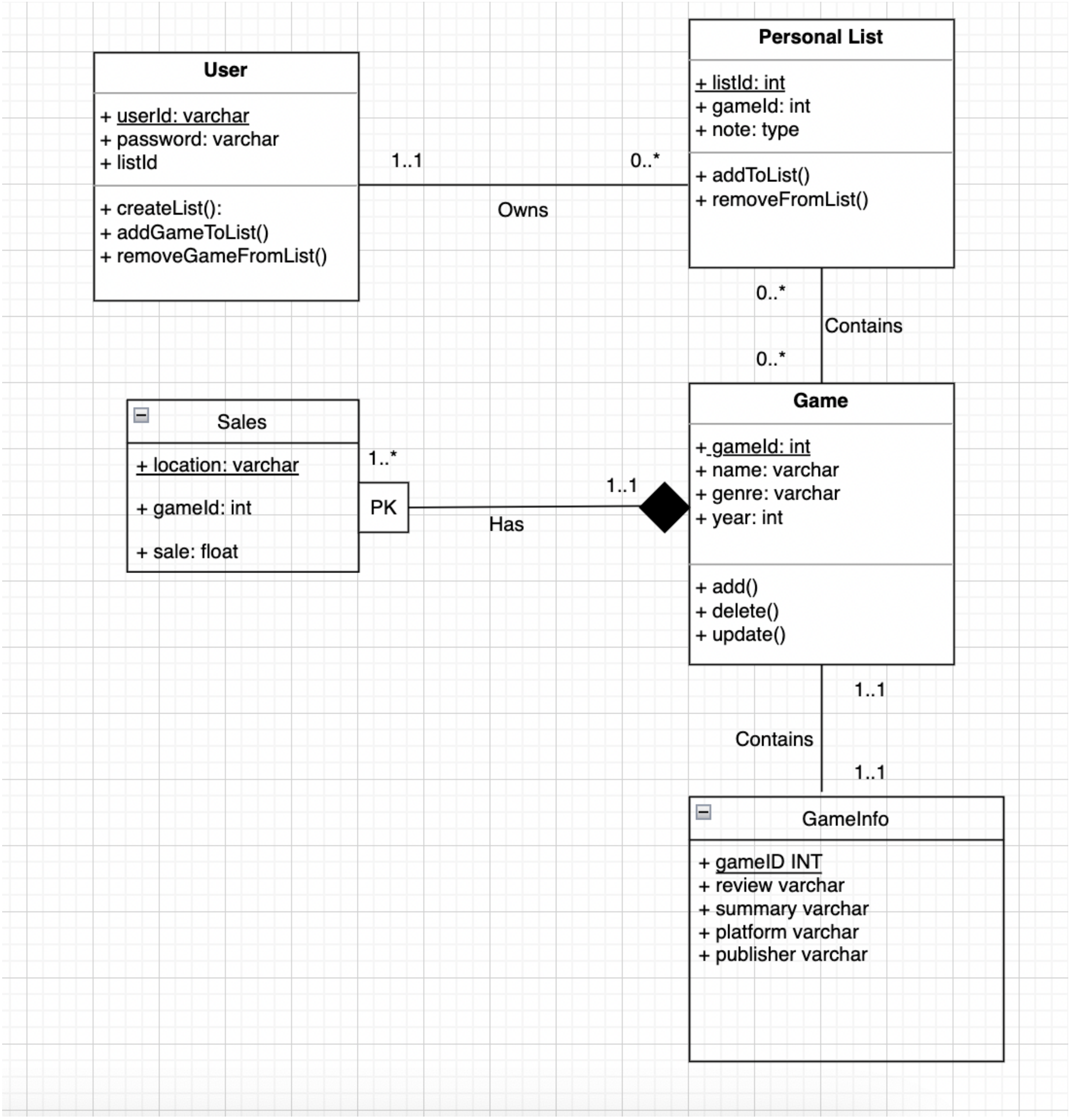
CS411 Project Track 1 Stage 2

UML Diagram:



Relational Schema:

User (
userId VARCHAR primary key,
password VARCHAR,
listId INT foreign key to Personal_list.listId)

Personal_list (
listId INT primary key,
gameId INT foreign key to Game.gameId,
note VARCHAR)

Sales (
location VARCHAR primary key,
gameId INT primary key,
Sale FLOAT)

Game (
gameId INT Primary Key,
name VARCHAR,
year INT,
genre VARCHAR)

Game_info (
gameId INT Primary Key,
review VARCHAR,
summary VARCHAR,
platform VARCHAR,
publisher VARCHAR)

Description of the assumptions

User Entity:

As the User entity stores the information for user login, we assume that each user id has to be unique while password could be the same for different users. Also, each user could have multiple personal lists to store game information.

Personal_list Entity:

The personal lists are assumed to have a unique list id as primary key, thus each individual list could be identified based on id. And each list could store information for multiple games. Furthermore, each list could store one note to indicate the contents of the list.

Sales Entity:
We assume that game id and location together will identify one unique sale information for one game, and the content of the sale column could be the same for each attribute.

Game Entity:
For the game entity, we assume each game will have a unique game id as primary key, but each game can have the same content of name, year and genre.

Game_info Entity:
Similarly, game id is assumed to be unique in the game_info entity. And the contents of review, summary, platform and publisher could be the same for different games.

A description of each relationship and its cardinality

User and Personal_list
Generally, we believe that each user can create many personal lists, while each list can be owned by exactly one user.

Games and Sales
A Game contain more than one Sales since a game could be selled in multiple countries and vice versa a sales only allow contains one game

Game and Personal_list
We think a personal list could contain more than one game, and each game could appear in more than one personal list.

Game and Game_Info
Each game should contain exactly one set of game information, and each set of game information should be owned by exactly one game.