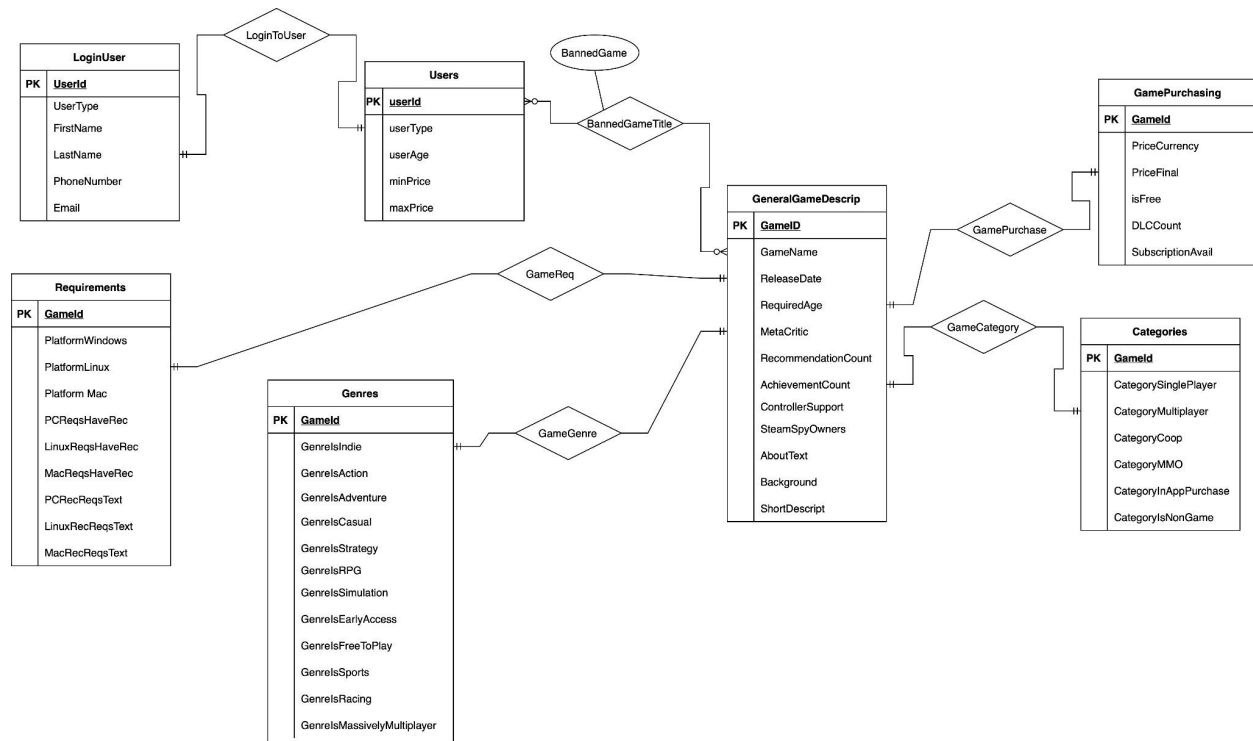# Stage 2: Conceptual and Logical Database Design

ER Diagram:

Relational Schema:

LoginUser(UserId:INT [PK], FirstName:CHAR(225), LastName:CHAR(225), PhoneNumber:CHAR(225), EmailAddress:CHAR(225))

Users(UserId:INT [PK], userType:CHAR(225), userAge:INT, minPrice:REAL, maxPrice:REAL)

Categories(GameId:INT [PK], CategorySinglePlayer:BOOLEAN, CategoryMultiplayer:BOOLEAN, CategoryCoop:BOOLEAN, CategoryMMO:BOOLEAN, CategoryInAppPurchase:BOOLEAN, CategoryIsNonGame:BOOLEAN)

Genres(GameId:INT [PK], GenreIsIndie:BOOLEAN, GenreIsAction:BOOLEAN, GenreIsAdventure:BOOLEAN, GenreIsCasual:BOOLEAN, GenreIsStrategy:BOOLEAN, GenreIsRPG:BOOLEAN, GenreIsSimulation:BOOLEAN, GenreIsEarlyAccess:BOOLEAN, GenreIsFreeToPlay: BOOLEAN, GenreIsSports:BOOLEAN, GenreIsRacing:BOOLEAN, GenreIsMassivelyMultiplayer:BOOLEAN)

Requirements(GameId [PK]:INT, PlatformWindows:BOOLEAN, PlatformLinux:BOOLEAN, PlatformMac:BOOLEAN, WindowsReqsHaveRec:BOOLEAN,

LinuxReqsHaveRec:BOOLEAN, MacReqsHaveRec:BOOLEAN, PCRecReqsText:CHAR (225), LinuxRecReqsText:CHAR (225), MacRecReqsText:CHAR (225))

GeneralGameDescrip(GameId:INT [PK], GameName:CHAR(225), ReleaseDate:YEAR, RequiredAge:INT, Metacritic:INT, RecommendationCount:REAL, AchievementCount:INT, ControllerSupport:BOOLEAN, SteamSpyOwners:INT, AboutText:CHAR(225), Background:CHAR(225), ShortDescrip:CHAR(225))

GamePurchasing(GameId:INT [PK], PriceCurrency:CHAR(25), PriceFinal:REAL, isFree:BOOLEAN, DLCcount:INT, SubscriptionAvail:BOOLEAN)

Relationships:

LoginToUser(UserId:INT [FK to LoginUser.UserId], UserId:INT [FK to Users.UserId])

GameReq(GameId:INT [FK to GeneralGameDescrip.GameId], GameId:INT [FK to Requirements.GameId])

GameGenre(GameId:INT [FK to GeneralGameDescrip.GameId], GameId:INT [FK to Genres.GameId])

GamePurchase(GameId:INT [FK to GeneralGameDescrip.GameId], GameId:INT [FK to Purchasing.GameId])

BannedGameTitle(UserId:INT [FK to Users.UserId], GameId:INT [FK to GeneralGameDescrip.GameId], BannedGame:Boolean)

GameCategory(GameId:INT [FK to GeneralGameDescrip.GameId], GameId:INT [FK to Categories.GameId])

ER Diagram Assumptions/Descriptions:

- We assume that User to login info is 1 to 1 because a user can only exist if they have a unique user ID attributed to them.
- We assume that the Banned table will be 0 to many for Users to GamesGeneralDescrip because a user can either choose to not have any banned titles or have a bunch of banned titles. Also a game can be banned by either 0 or many users.
- We assume that relations between GameGeneralDescrip and GamePurchasing, or Genre, or Requirements, or Categories is all 1 to 1 because we have a unique GameId that will be used to query for information between tables.