

# Gam-Eco

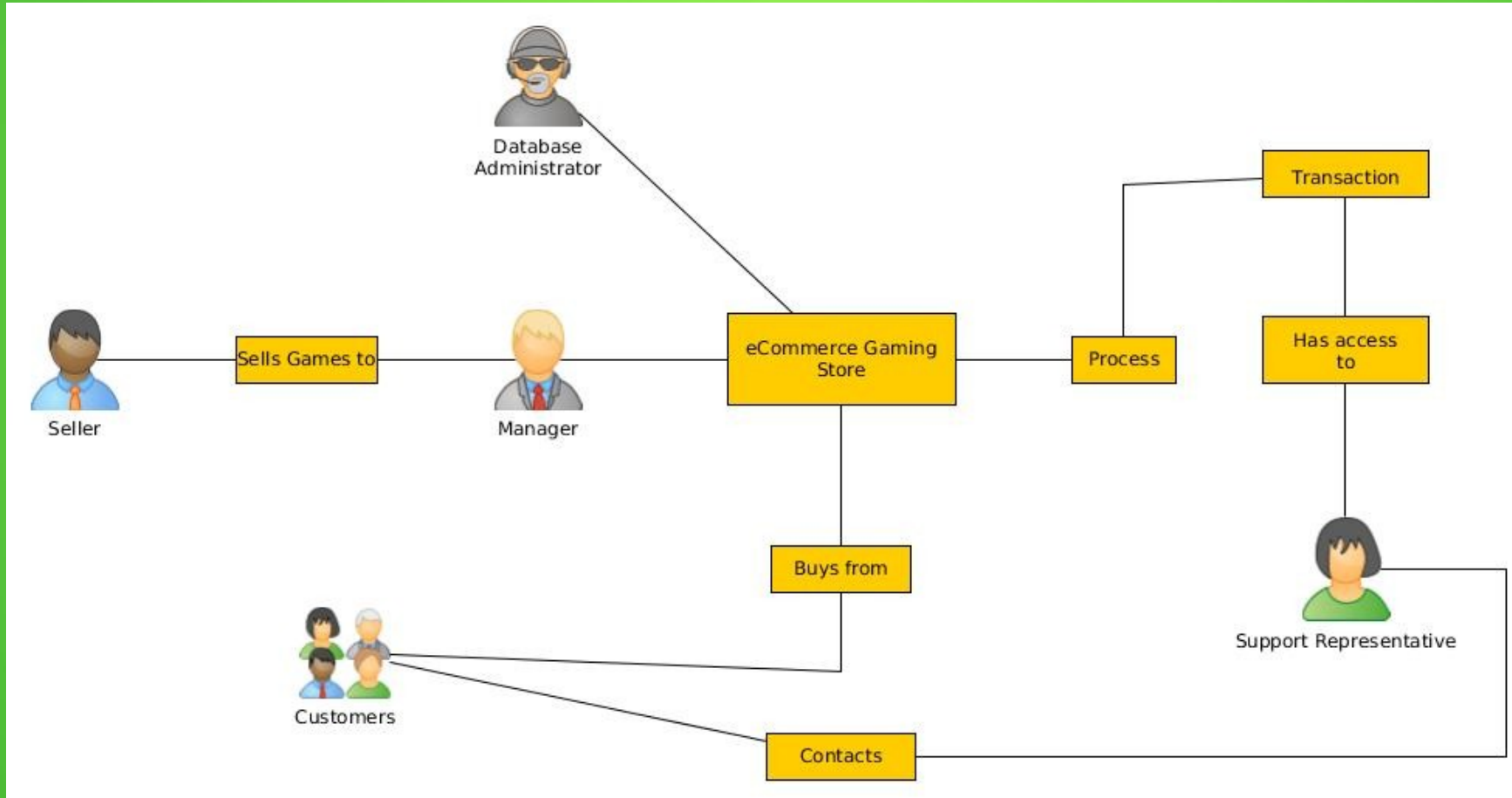
Gaming e-Commerce Database

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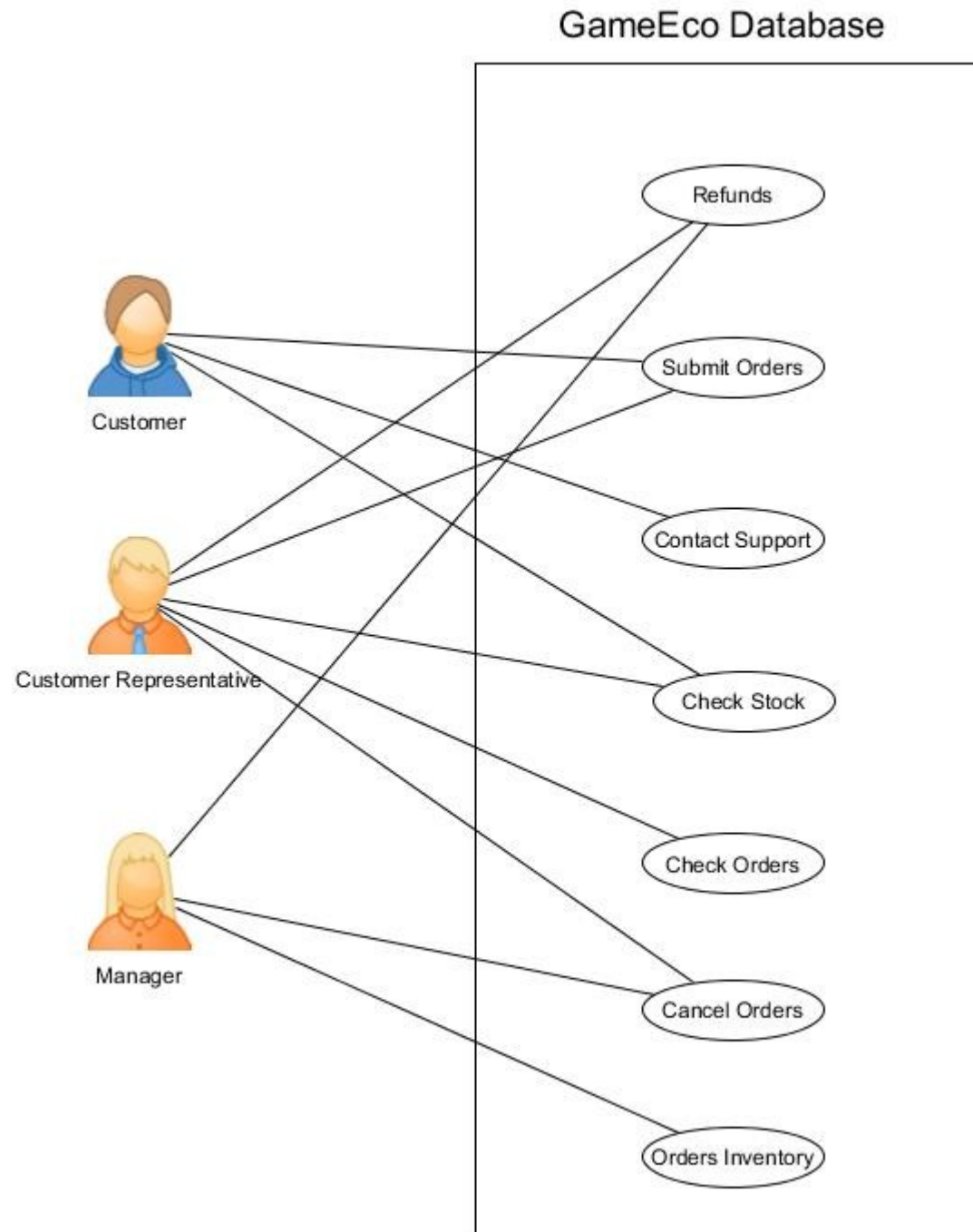
# Basic Overview of Store

- E-Commerce video game digital store
- The products are video games in the form of redeemable codes
- The customer will be able to purchase a digital game
  - redeem the code online from the relative platform (Xbox, Playstation, etc.)
- Content is entirely digital
  - no shipping of products
  - distribution by email
    - sent to the customer immediately after purchase
    - Email contains the order confirmation and redeemable code.
- The codes are provided by multiple sellers who will receive royalty on each purchase

# ORGANIZATION SNAPSHOT



Three Main Users of  
the Gam-Eco  
Database



Several Actions  
the Users will  
perform

# Conceptual Schema Description

- **PERSON:** This entity contains customer and employee information. ID is the primary key for each person.
- **EMPLOYEE:** Information about employee such as title, department, etc. Manager and customer service rep are employees.
- **CUSTOMER:** Contains personal information about the customer such as street, name, state, phone#. Can purchase from the e-Commerce store as well as contact customer service.
- **SUPPLIERS:** Suppliers have a m to n relationship with our company; many suppliers and supply multiple games to the company. Manager interacts with the supplier to retrieve new orders. SID is the primary key for suppliers.
- **MANAGER:** Places orders for new game inventory.

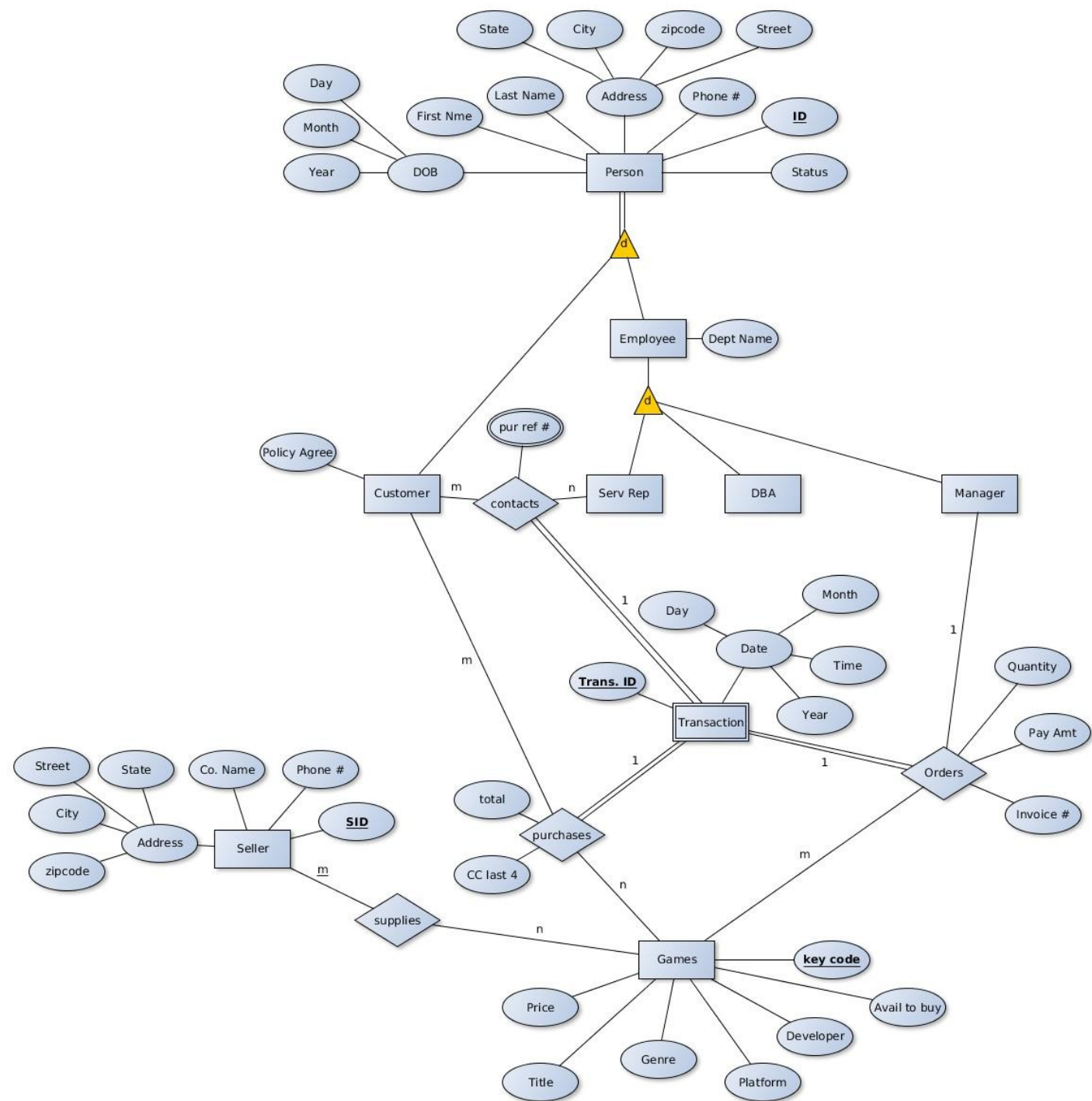
# Conceptual Schema Description

- **CUSTOMER SERVICE REPRESENTATIVE:** Employee who interacts with the customer when problems arise. Has access to the customers' order history and basic personal information.
- **GAMES:** Contains information about the game such as price, title, genre, platform, and key code. Key code will be unique to each game and will serve as the candidate key. Also contains inventory account and availability.
- **TRANSACTIONS:** Information about customer transactions. Each transaction has a unique transaction ID.

# Actions

- CONTACTS: Many customers are able to contact many customer service representatives to resolve issues.
- SUPPLIES: Many suppliers supply multiple games to the company.
- PURCHASES: Many customers can purchase multiple games.
- ORDERS: One manager is in charge of ordering multiple games.

# ER Diagram





# Relational Schema

• A **relational schema** is a collection of **relations** (tables) and their **attributes** (columns).

• Each relation has a unique name and a set of attributes.

• The **primary key** is a set of attributes that uniquely identifies each tuple in a relation.

• The **foreign key** is a set of attributes in one relation that refers to the primary key of another relation.

• The **relational schema** is used to define the structure of a database.

• The **relational schema** is a **logical model** of the database.

• The **relational schema** is used to create the **physical database**.

• The **relational schema** is a **fundamental concept** in database design.