# GCTA

Purity Siantayo Nkaiwatei (p.nkaiwatei@studenti.unipi.it)

Francesco Copelli (f.copelli@studenti.unipi.it)

Nicola Lepore (n.lepore@studenti.unipi.it)

Simone Conti (s.conti27@studenti.unipi.it)

## **Player Information**

- username
- email
- currency balancy
- gacha collection
- Profile Pic
- transaction history (retrieved from transaction list of the relative microservice)









## Gacha collection

#### Car models

- Super treasure 2024 (11) Epic (E)
- Treasure 2024 (13) Rare (R)
- Boulevard 2024 (30) Rare (R)
- Mainlines 2024 (345) Common (C)

In game currency: Octane

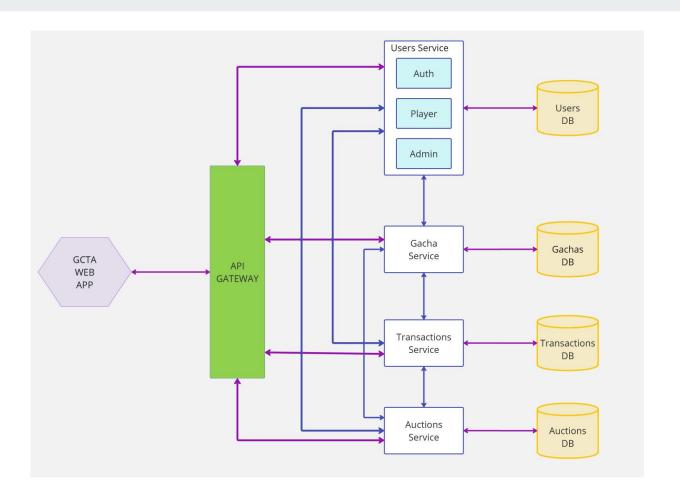








## **Architecture**



#### Table: Users

#### Fields:

- user\_id (INT, PK): Unique identifier for each user
- username (VARCHAR(255)): Unique username for the user
- password (VARCHAR(255)): Hashed password for authentication
- email (VARCHAR(255)): User's email address
- role (ENUM('player', 'admin')): Defines if the user is an admin or player
- currency\_balance (INT): Amount of in-game currency the user holds

- One-to-Many with Transactions (Users → Transactions)
- One-to-Many with UserGachaInventory
   (Users → UserGachaInventory)
- One-to-Many with Auctions (Users → Auctions)
- One-to-Many with Bids (Users → Bids)

## **Table: Gachaltems**

#### Fields:

- gacha\_id (INT, PK): Unique identifier for each gacha item
- name (VARCHAR(255)): Name of the gacha item
- rarity (ENUM('common', 'rare', 'epic',
   'legendary')): Rarity level of the gacha item
- description (TEXT): Description of the gacha
- status (ENUM('available', 'out\_of\_stock')):
   Status of the gacha in the catalog

- One-to-Many with Auctions (Gachaltems → Auctions)
- Many-to-Many with Users via
   UserGachalnventory (Gachaltems →
   UserGachalnventory)

## **Table: UserGachaInventory**

#### Fields:

- inventory\_id (INT, PK): Unique identifier for the inventory
- user\_id (INT, FK): References Users.user\_id
- gacha\_id (INT, FK): References
   Gachaltems.gacha\_id
- acquired\_date (DATETIME): Date and time the gacha was acquired

- Many-to-One with Users
   (UserGachaInventory → Users)
- Many-to-One with Gachaltems
   (UserGachalnventory → Gachaltems)

#### **Table: Auctions**

#### Fields:

- auction\_id (INT, PK): Unique identifier for the auction
- gacha\_id (INT, FK): References Gachaltems.gacha\_id
- seller\_id (INT, FK): References Users.user\_id
- base\_price (INT): Starting bid price for the auction
- highest\_bid (INT): The current highest bid
- buyer\_id (INT, FK, nullable): References Users.user id (optional, null until sale)
- status (ENUM('active', 'expired', 'completed')):
  Auction status
- end\_time (DATETIME): When the auction ends

- One-to-Many with Bids (Auctions → Bids)
- Many-to-One with Users (Auctions → Users)
- Many-to-One with Gachaltems (Auctions
  - → Gachaltems)

### Table: Bids

#### Fields:

- bid\_id (INT, PK): Unique identifier for each bid
- auction\_id (INT, FK): References Auctions.auction\_id
- user\_id (INT, FK): References Users.user\_id
- bid\_amount (INT): Amount the user has bid
- bid\_time (DATETIME): Date and time the bid was placed

- Many-to-One with Users (Bids → Users)
- Many-to-One with Auctions (Bids → Auctions)

### **Table: Transactions**

#### Fields:

- transaction\_id (INT, PK): Unique identifier for the transaction
- user\_id (INT, FK): References Users.user\_id
- transaction\_type (ENUM('roll\_purchase','auction\_bid', 'top\_up')): Type of transaction
- amount (INT):: The amount of currency involved
- transaction\_date (DATETIME):: Date and time of the transaction

## Relationships:

 Many-to-One with Users (Transactions → Users)