



Gacha Collection Beckend

290AA – Advanced Software Engineering

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User

- ID
- First Name
- Last Name
- E-mail
- Password (hash)
- History
- Currency Amount



Catalogue – All 151 Pokémon from 1^o gen

- Common (54,45%)



- Uncommon (40%)



- Rare (5%)



- Epic (0,5%)



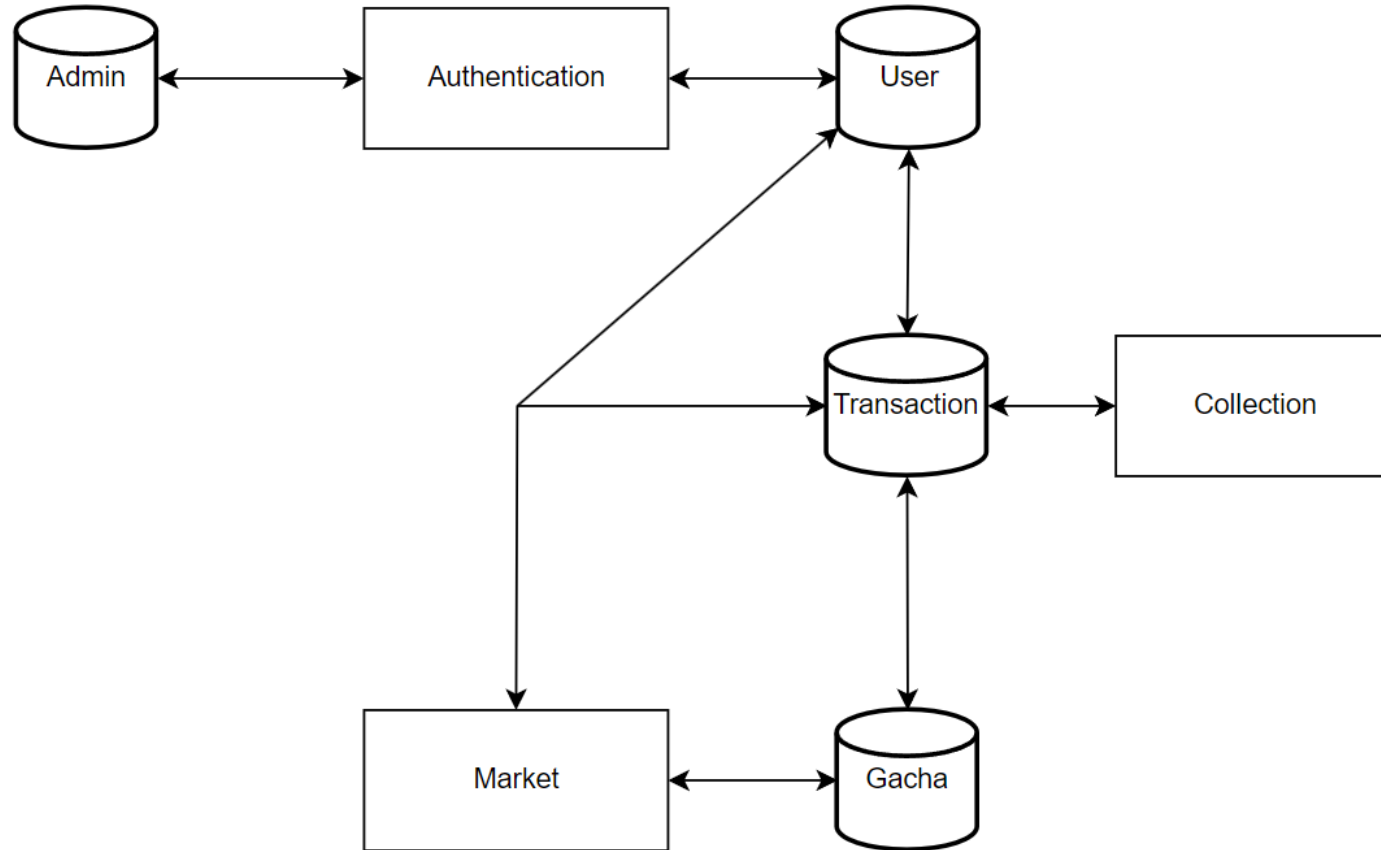
- Legendary (0,05%)



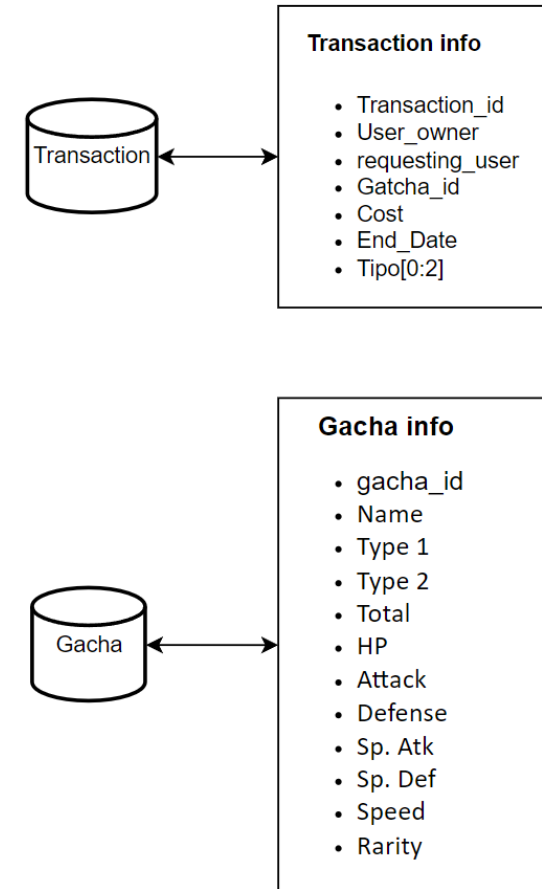
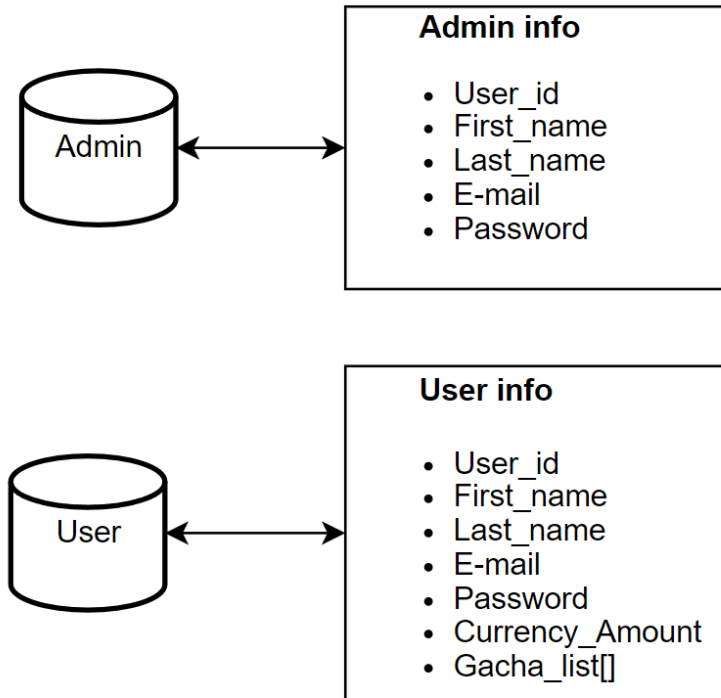
- In-game currency: Pokedollars ₧



The Architecture



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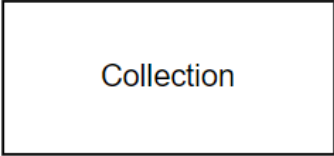
The Architecture



Authentication

The user access the authentication to:


- login
- logout
- create a game profile
- delete a game profile
- edit it's game profile



Collection

The user access the collection to:

- see their gacha collection
- see the info of a gacha of thier collection
- see the system gacha collection
- see the info of a system gacha

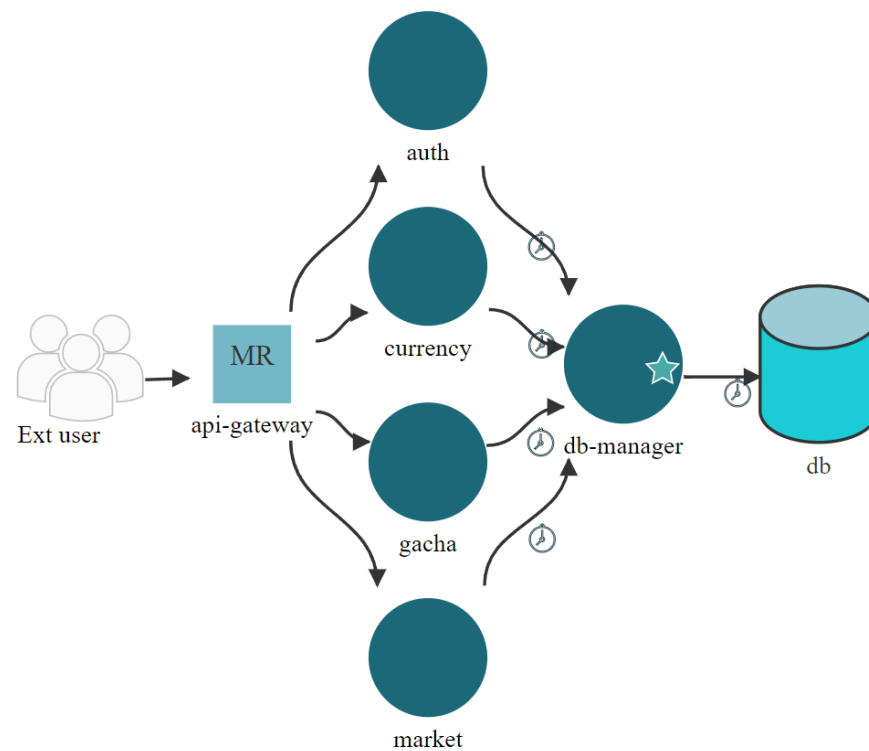


Market

The user access the Market to:

- see the auction market
- set an auction for one of my gacha
- bid for a gacha from the market
- receive in-game currency when someone win my auction
- receive a gacha when I win an auction
- receive my in-game currency back when I lost an auction
- use in-game currency to roll a gacha
- buy in-game currency

Microfreshener



The micro-services

-api-gateway

This API Gateway acts as the main entry point for client requests, forwarding them to the appropriate microservices for processing. It integrates with multiple services.

-db-manager

This API is part of a microservices architecture and handles all the queries to the database.

-auth-service

This API is part of a microservices architecture and serves as the user management service for the application. It provides operations such as register a new user or authenticate a user

-currency-service

This API is part of a microservices architecture and serves as the currency management service for the application. It provides operations for managing in-game currency and rolling gacha items.

-gacha-service

This API is part of a microservices architecture and serves as the gacha management service for the application. It provides operations for managing gachas and retrieving gacha infos.

-market-service

This API is part of a microservices architecture and handles transactions related to gacha items and user purchases. It interacts with other services to track and update user transactions.

The currency service datapath

The gacha-related services are exposed externally to clients on port 8000 via an API gateway. When an HTTPS request is received for a service related to CRUD operations for gacha, the API gateway forwards the HTTPS request to the gachaservice on port 8002.

The gachaservice itself exposes APIs on port 8002 to add, modify, delete, and view a single gacha or the entire collection of gachas.

To interface with the database, the gachaservice sends an HTTPS request to the db_manager, which provides APIs for database interfacing services. These database-related APIs are exposed by the db_manager on port 8005.

The gacha service datapath

The currency service is exposed to external clients through an API Gateway on port 8000.

When an HTTPS request for `roll_gacha` or `buy_currency` is received, the API Gateway forwards the request to the `currency_service` via HTTPS on port 8004. The `currency_service` is responsible for implementing the business logic associated with these requests.

To interface with the database, the `currency_service` sends an HTTP request to the `db_manager`, which listens on port 8005. The `db_manager` exposes APIs that handle database queries, enabling the `currency_service` to retrieve or update data as required.