

A Project Report On

EPIC RPG

Submitted in partial fulfillment of the requirement for the
award of the degree

**MASTER OF COMPUTER
APPLICATIONS
(M.C.A.)**

Academic Year 2025 – 26

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Internal Guide
Prof .Dr. Ashwin Dobariya



**Marwadi
University**
Marwadi Chandarana Group





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University
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Faculty of Computer Applications (FCA)

Certificate

This is to certify that the project work entitled

EPIC RPG V2

*submitted in partial fulfillment of the requirement for
the award of the degree of*

MASTER OF COMPUTER APPLICATIONS (M.C.A.)

of the

Marwadi University

is a result of the bonafide work carried out by

**Adil Belim (92400584032)
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Niyati Bhanani (92400584019)**
during the academic year 2025-26

Faculty Guide

HOD

Dean

We hereby declare that this project work entitled **EPIC RPG V2** is a record done by us.

We also declare that the matter embodied in this project is genuine work done by us and has not been submitted whether to this University or to any other University / Institute for the fulfillment of any course of study.

Place:

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ACKNOWLEDGEMENT

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We are very thankful to our faculty guide **Dr. Ashwin Dobariya**, the person who makes us follow the right steps during project work. we express my/our deep sense of gratitude to his/her guidance, suggestions and expertise at every stage. Apart from that his/her valuable and expertise suggestion during documentation of my/our report indeed helped me/us a lot.

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COMPANY PROFILE

GALMINE AI

Galamine AI is a technology-driven company specializing in Artificial Intelligence solutions that help organizations automate processes, improve customer engagement, and enhance operational efficiency. The company develops AI-powered chatbots, virtual assistants, and customized digital solutions to support business growth and innovation.

Galamine AI operates under Amri Foundation, an organization committed to innovation, social impact, and sustainable development through technology and education.

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1. SYNOPSIS:

The Text-Based Python RPG Game is an interactive command-line role-playing game developed using Python. The game allows users to register, log in, create characters, explore different areas, battle creatures, earn rewards, collect items, and level up. It is designed using a modular approach with separate components for user management, gameplay mechanics, inventory, store, and utilities.

The game uses JSON-based file storage to save and load player data such as username, password, stats, coins, XP, and inventory. The goal of the project is to provide a simple yet engaging RPG experience while demonstrating Python programming concepts such as functions, loops, file handling, conditional logic, and modular coding.

This project focuses on text-based interaction instead of graphics, making it easy to run on any system with Python installed. It serves as both entertainment and a practical application of core programming skills.

2. PREAMBLE

2.1 General Introduction:

Text-based RPGs (Role-Playing Games) are one of the earliest forms of computer games, built entirely through text prompts and user choices. These games are simple yet highly interactive, relying on decision-making rather than graphics.

2.2 Statement of Problem: (N/A)

2.3 Objective and Scope of the study:

- Implement user registration and login functionality.
- Created a system for character level progression and attribute management (health, XP, coins).
- Designed and developed various game modules, including hunting, adventure, inventory management, a store, and character profiles.
- Incorporated file-based storage for user data persistence.
- Provided a user-friendly text-based interface with clear instructions and feedback.
- **Scope:**
 - The project will include core RPG elements such as character development, combat, and inventory.
 - The game will be text-based, focusing on gameplay mechanics rather than graphical presentation.
 - User data will be stored in a JSON file.
 - The game will be developed using Python 3.x.

2.4 Module Description with functionality:

2.4.1 User Management Module:

- Description: This module handles user registration, login, and deletion.
- Functions:
- register(): Creates a new user account, storing the username and password.
- login(): Authenticates existing users and retrieves their data.
- delete_user(): Removes a user account from the system.
- load_user_data(): Loads user data from the JSON file.
- save_user_data(): Saves user data to the JSON file.

2.4.2 Game Mechanics Module:

- Description: This module contains the core gameplay functions, including hunting,
- adventure, chopping, and reward systems.
- Functions:
- rpg_hunt(): Simulates a hunting expedition where the player encounters creatures, gains rewards, and loses health.
- rpg_adventure(): Presents a more challenging adventure scenario with a single, powerful creature.
- rpg_chop(): Allows the player to chop wood and gather resources.
- reward(): Provides random rewards to the player.
- get_level(): Calculates the player's level based on their XP.
- check_level_up(): Checks if the player has leveled up and updates their stats.

2.4.3 Inventory Module:

- Description: Manages the player's items.
- Function:
- view_inventory(): Displays the items currently in the player's inventory.

2.4.4 Profile Module:

- Description: Displays the player's character information.
- Function:
- view_profile(): Shows the player's username, level, stats (attack, defense, health), coins, and XP.

2.4.5 Store Module:

- Description: Allows the player to buy items from a store.
- Function:
- store(): Displays the store's inventory and handles purchases.

2.4.6 Main Game Module:

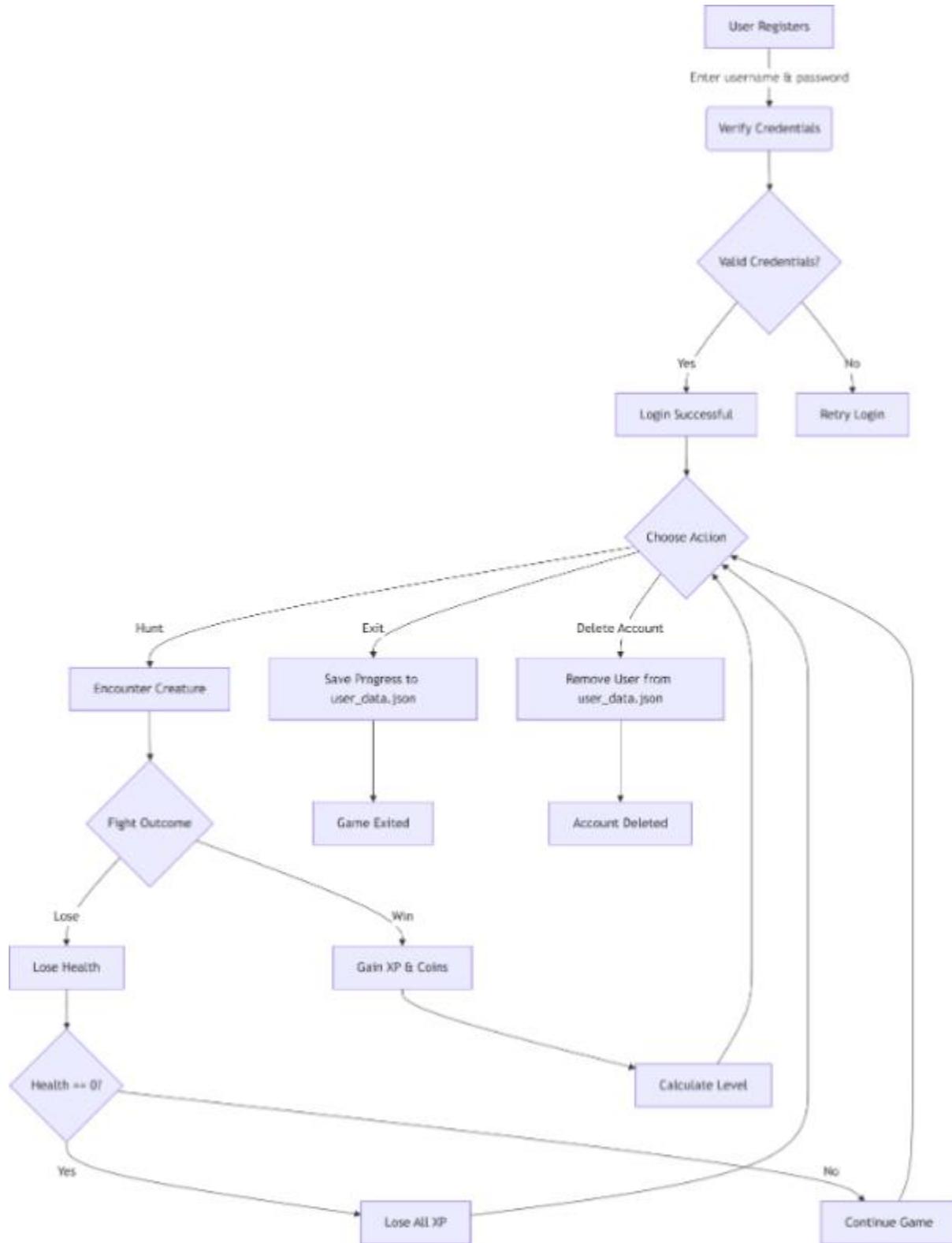
- Description: The main entry point of the game, orchestrating the game loop and user interaction.
- Function:
- start_game(): Manages the main game loop, user input, and calls other modules.

2.4.7 Utils Module:

- Description: Provides utility functions and data structures used across other modules.
- Functions/Data:
- get_level(): Calculates the player's level.
- item_emojis: A dictionary mapping item names to emojis for display.

DIAGRAMS

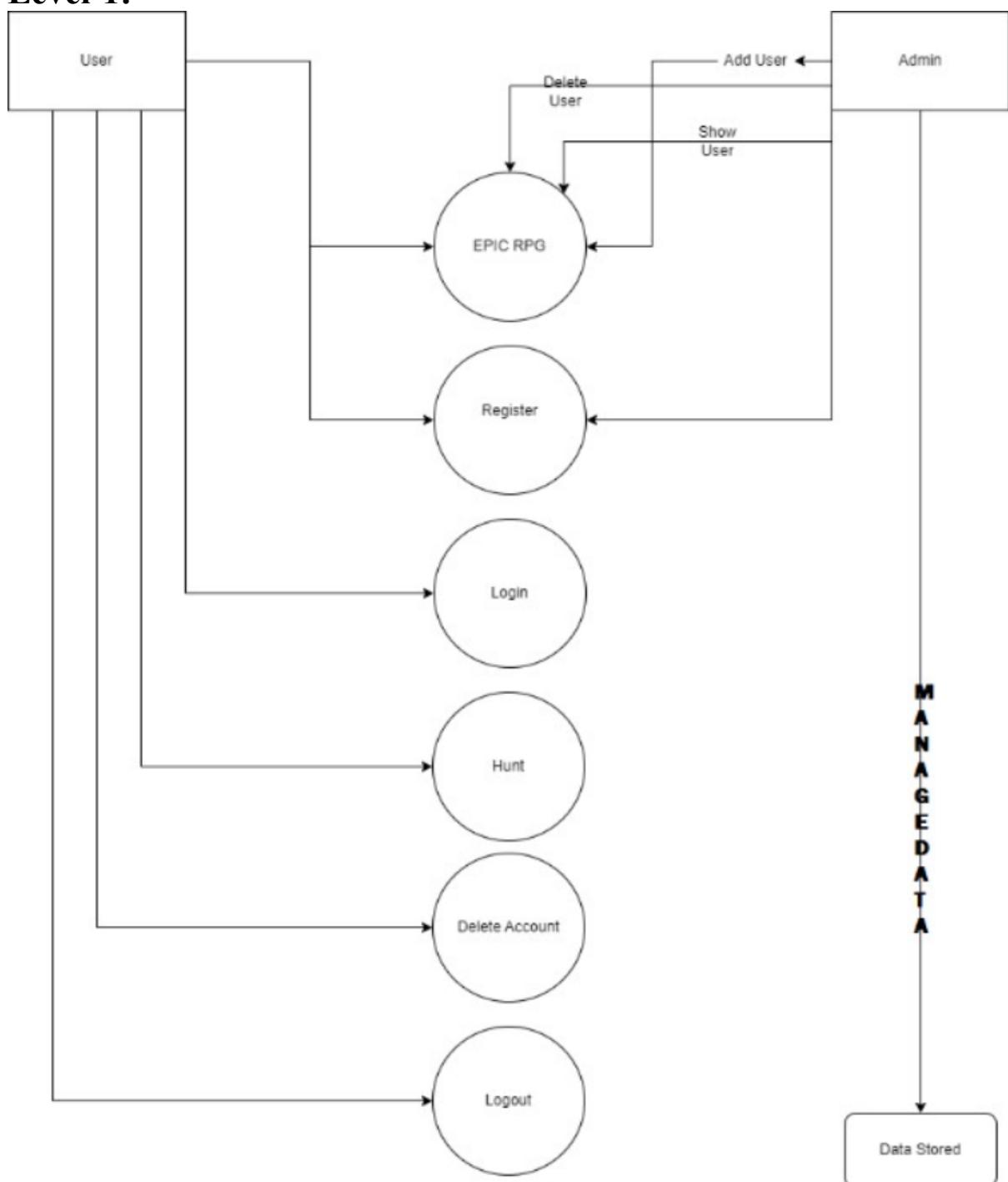
3.1 Flowchart:



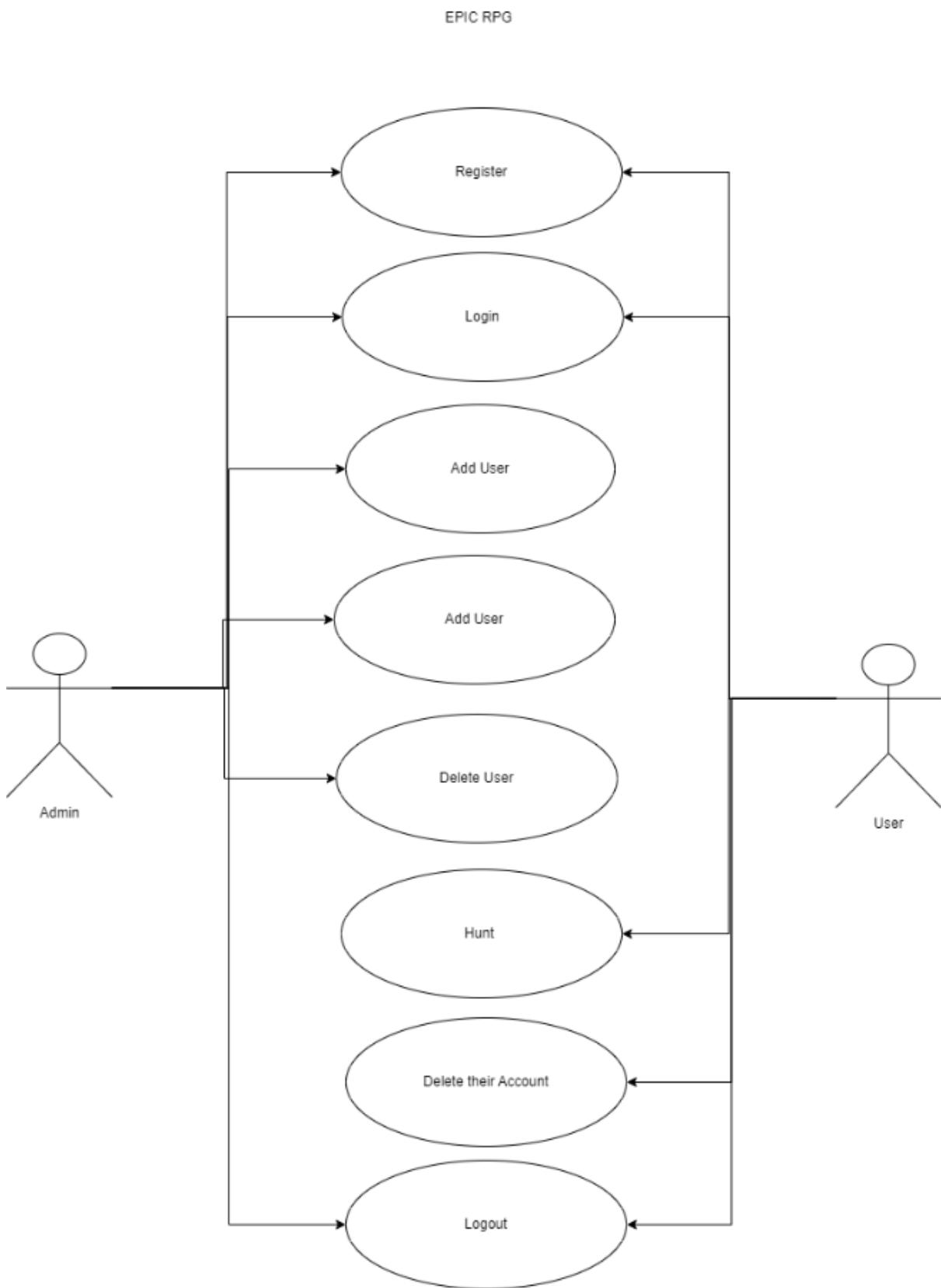
3.2 Data flow diagram: DFD-0



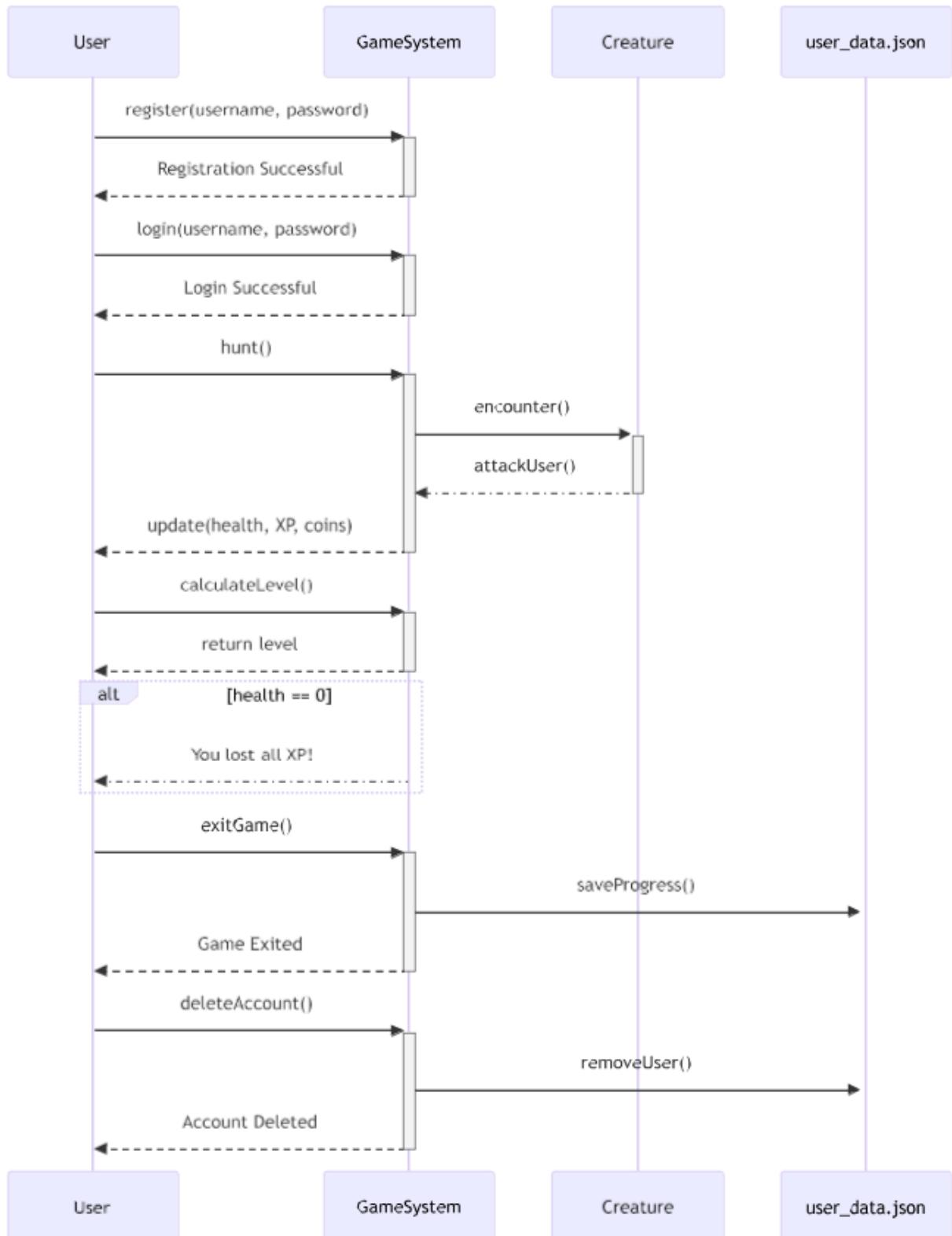
Level-1:



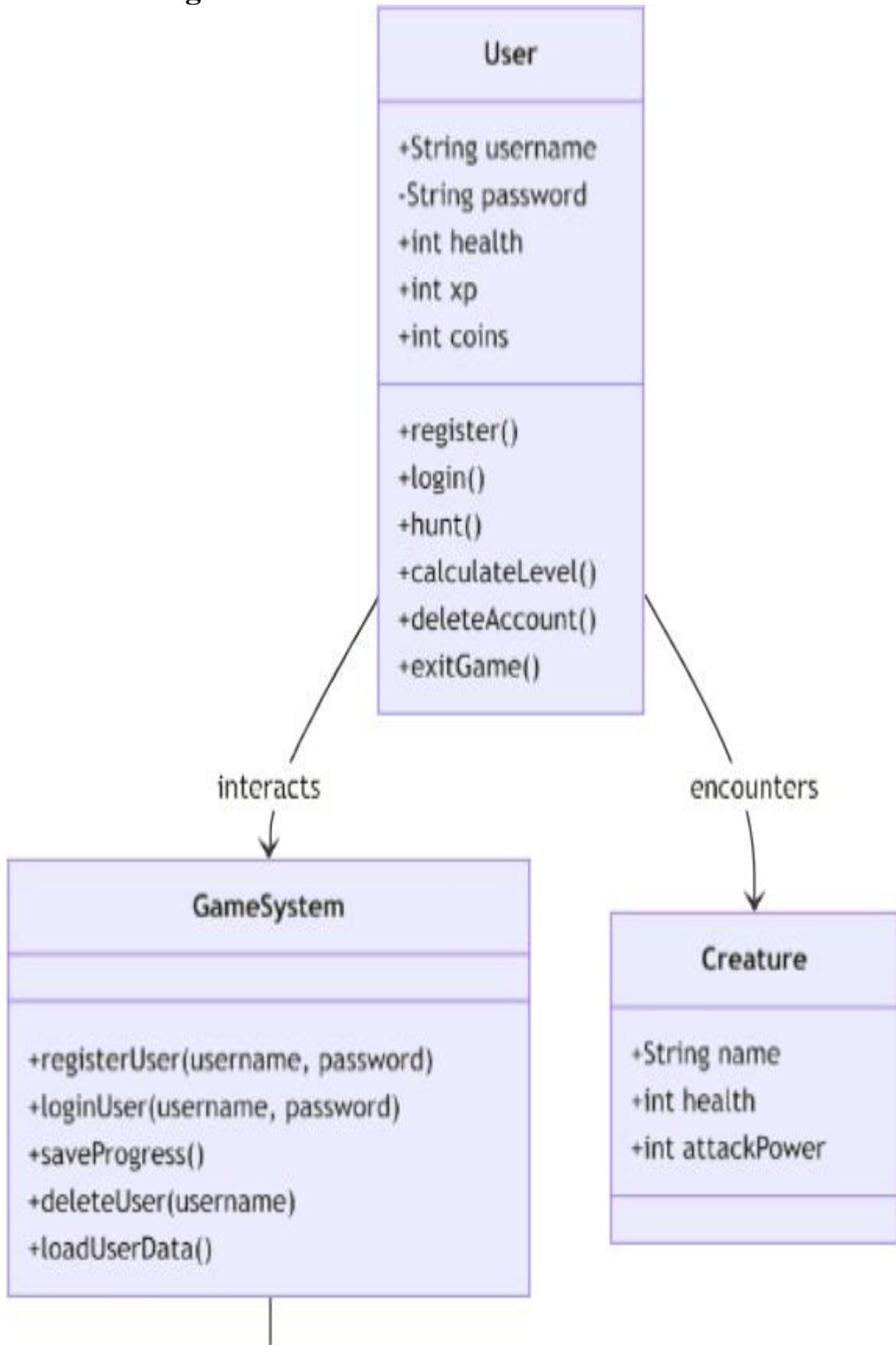
3.3 Use case diagram:



3.4 Sequential diagram:



3.5 Class diagram:



3.6 Activity diagram:

