# CPSC 304 Project Cover Page

Milestone #: 1

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Group Number: 46

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

## 2. A brief project description
    a.  What is the domain of the application? Describe it.

The domain of our application is online multiplayer role-playing games (RPGs). This domain centers on players interacting with a shared virtual world, progressing through levels, completing quests, managing items, and engaging with enemies. It also involves social features such as guilds and cooperative gameplay, which are common in modern MMORPGs.

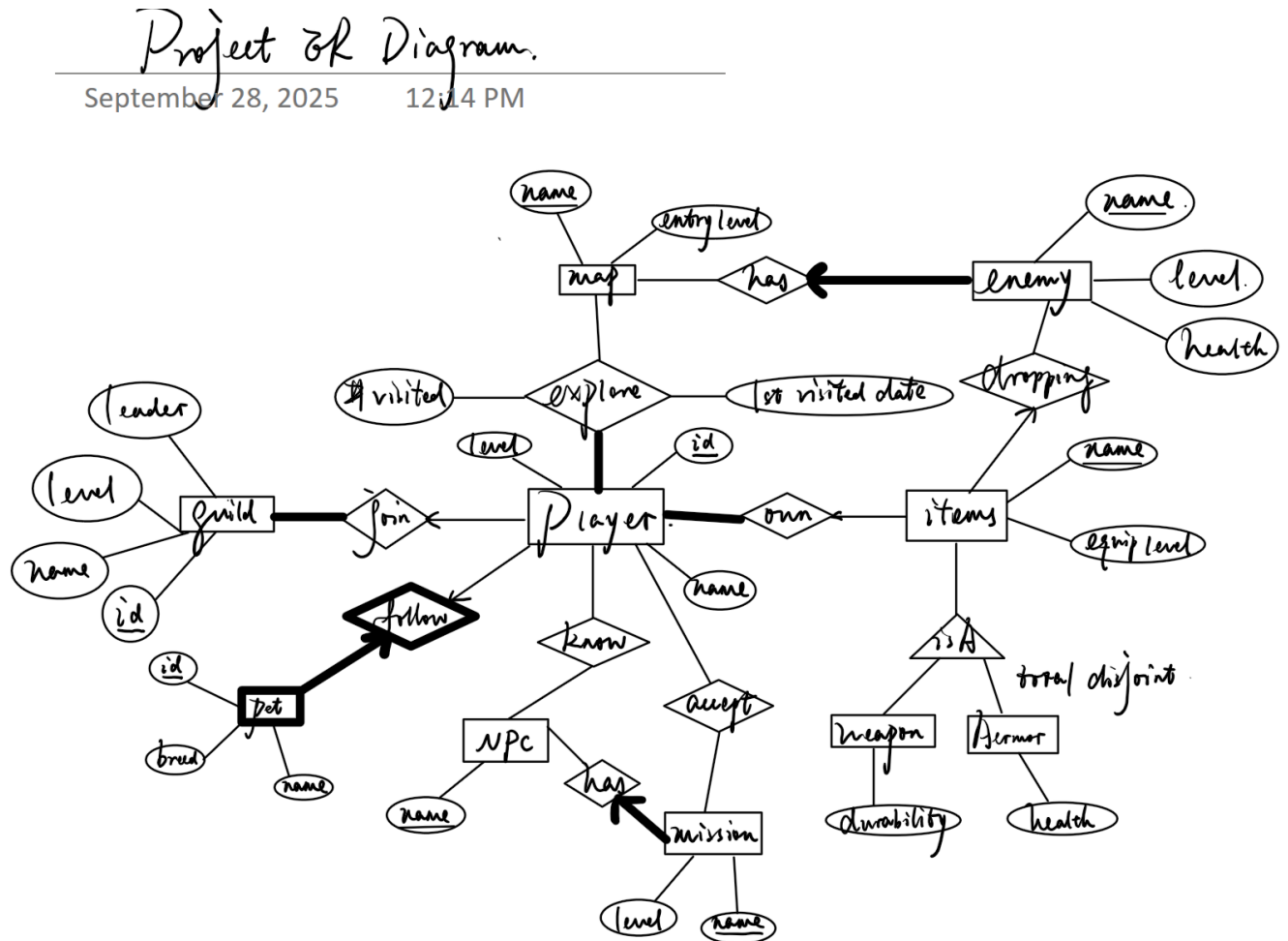    b.  What aspects of the domain are modeled by the database?

The database captures the essential components of this game domain by modeling players, guilds, pets, items, maps, NPCs, enemies, and missions. These entities represent the core gameplay elements that players interact with: players manage inventories and pets, join guilds, and complete missions from NPCs. By storing these relationships and attributes, the database ensures persistence of the virtual world.

## 3. Database Specifications
    a.  What functionality will the database provide?

(1) See all the gaming information related to the specific player including name, Level (growth), guild etc.
(2) Browse and track the world data, including enemies, map, bag items and various levels of missions provided by the NPCs, etc.
(3) Find corresponding levels of the maps that can be explored by each player.
(4) Synchronization of database and game updates
(5) Supports the guild interaction system (data storing) within the game.

## 4. An ER diagram for the database



Project ER Diagram.
September 28, 2025       12:14 PM

## 6. Other comments explaining the project

The database serves as the core anchor of the game world, supporting player progression, item and pet management, mission tracking, guild/social features, and world data (maps, NPCs, enemies). It also provides the foundation for building the game ecosystem management and operational analytics. These functions are critical to game operations, ensuring data persistence across platforms while enabling analysis of gameplay trends.

Detailed description:

When a player first registers, he will get a specific ID to uniquely identify him. The corresponding name and level will be stored. Then, he will be able to explore the maps as

his level goes up. The database will store both the first visited date and the number of the times he visits the map. Each map will have a unique name and an entry-level required. Enemies will be scattered in every corner of the map, with its name, level and health. When they are defeated, items will be dropped and the players will be able to collect the items which can be either a weapon or an armor. Also, the players can accept missions from the NPCs with a required level and a unique name. Players can choose to join a guild and a guild will have a leader, its level, name and a unique guild ID. At the same time, players can also choose a pet to follow them, but one player can only select one pet.

## 7. Acknowledgement of use of AI tools

In this project, we did not use AI tools to gain support for any purpose.