CPSC 304 Project Cover Page

Milestone #: 1

Date: Oct 3rd 2023

Group Number: 15946791

Name	Student Number	CS Alias (Userid)	Preferred Email Address
Ram Jayakumar	15967981	ramj21	ramjayakumar21@gmail.com
Amin Fahiminia	13006549	afahimi	afahimi@student.ubc.ca
Mercury Mcindoe	85594505	merc0606	mercurymcindoe@gmail.com

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. What is the domain of the application? Describe it.

The domain of an application refers to the area of knowledge your application resides in. For example, if I am making an application for a hospital, the domain would be something like healthcare/patient management/logistics (it would depend on what the application is trying to do).

The domain of the application is fantasy role-playing games (RPGs), where players and non-playable characters (NPCs) interact within a dynamically structured game world. In this domain, characters navigate through various locations, interact with each other, join with factions, engage in quests, and manage inventories containing diverse items. Through a character-driven narrative, players can achieve various outcomes, such as completing quests or developing their skills. The domain of this application also includes video game character management, and game world persistence.

b. What aspects of the domain are modeled by the database? In answering this question, you will want to talk about what your project is trying to address and how it fits within the domain. It is likely that in the process of answering these questions you will bring up examples of a real-life situation that the application could be applied to.

The database will be able to model crucial playable and non-playable character information within the domain, such as health, mana (magic energy), and the levels they have attained. Characters have their skills developed in specific areas, and can be associated with factions. Their locations will also be stored in the database, of which they can only be in one at a time. It would also contain game world elements like inventory, quests, and items. The interactions between players, non-playable characters (NPCs), and the environment, facilitated through an Interaction entity, will also be contained within the database. Finally, playable characters will also be linked to an inventory, which contains any number of items found or rewarded from completed quests This project manages all entities within the game world, making it easier for story curation and administration. It fits within the domain by modeling the typical components of role-playing games in a standardized and categorized way.

3. Database specifications: (3-5 sentences)
a. What functionality will the database provide? I.e., what kinds of things will

people using the database be able to do

This database will facilitate real time interactions between players, NPC's and the game environment by tracking and updating various attributes like character health, quest statuses and inventories. Players will have the ability to embark on quests, engage in combat, trade items and more, with all of their actions being reflected in the database. Characters, along with their locations, factions, and skills will be persisted in the database. Player characters will have an inventory for items, and have interactions with non playable characters, such as attacking, healing, or getting a quest. These quests can then be completed for reward items that are added to the player's inventory.

4. Description of the application platform: (2-3 sentences)
> **a. What database will your project use (department provided Oracle, MySQL, etc.)?**
> **See the "Project Platforms" section of this document for more information.**
> **b. What is your expected application technology stack (i.e., what programming**
> **languages and libraries do you want to use)? See the "Project Platforms" section**
> **of this document for more information.**
> **i. You can change/adjust your tech stack later as you learn more about how to get started for the project via latter tutorials.**

The application platform will use the department provided Oracle database to store game-world related data. The expected application technology stack will be using PHP for performing database operations, along with Javascript, HTML and CSS as a user interface.

5. An ER diagram for the database that your application will use. It is OK to hand-draw it but if it is illegible or messy or confusing, marks will be taken off. You can use software to draw your diagram (e.g., draw.io, GoogleDraw, Microsoft Visio, Powerpoint, Gliffy, etc.) The result should be a legible PDF or PNG document. Note that your ER diagram must use the conventions from the textbook and the lectures. For example, do not use crow's feet notation or notation from other textbooks).

a. Please limit your diagram to a letter size page (8.5 x 11 inches). If you require additional space, talk to your project mentor beforehand as this might mean that your project is a bit more complicated than what we expect
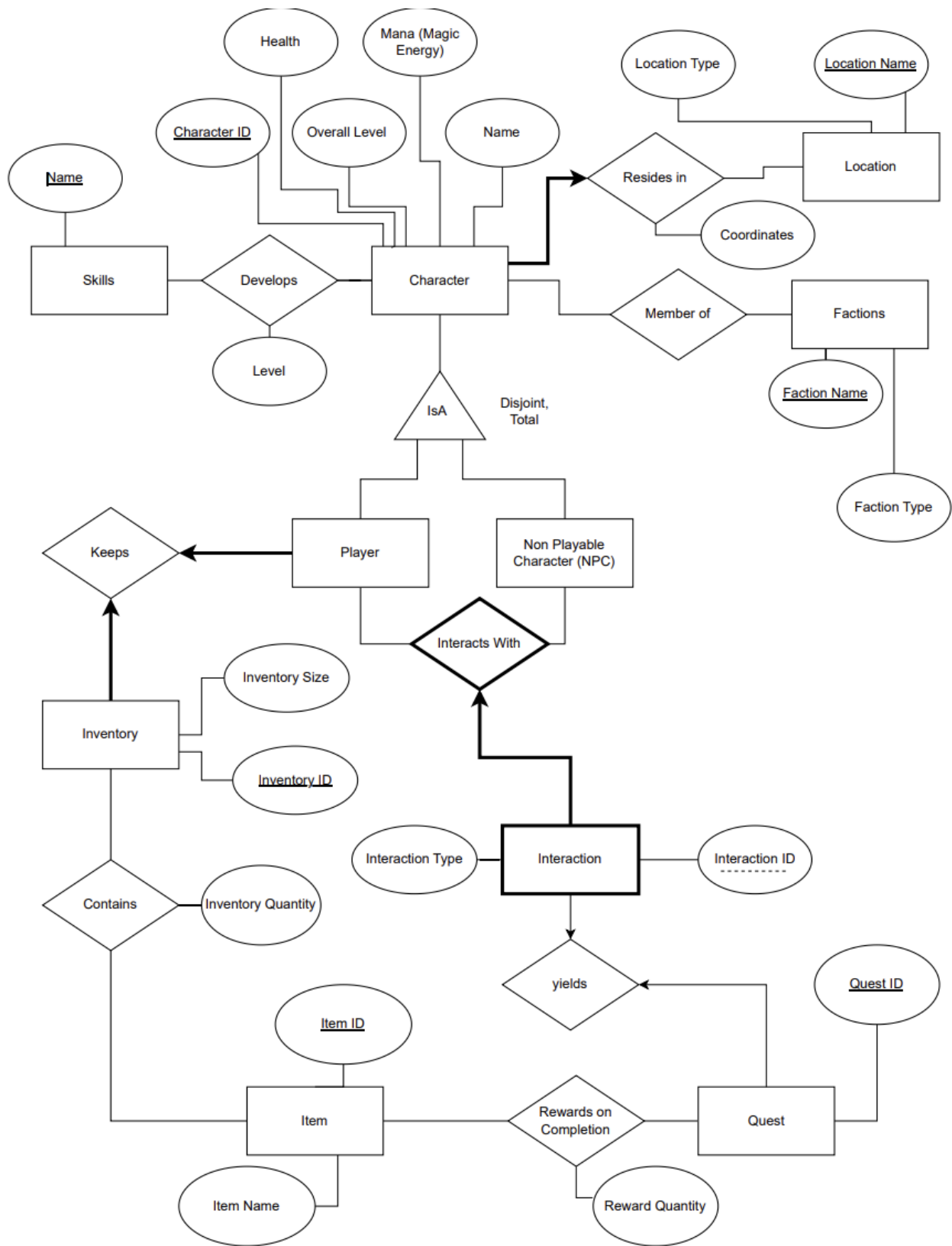
6. Your E/R diagram should adhere to the expectations listed above.

7. Other comments, as appropriate, to explain your project.