

Milestone #1

Entity-Relationship Diagram (ERD)

- A Player owns one or many characters, and if a player is deleted all his associated character is deleted (Main Requirement)
- Every Character is owned by 1 Player (Main Requirement)
- A Character is identified by its name and the Player Account Number
- The Character expiry date is used to determine if the player will be paying for a particular Character
- A Player has the following attributes
 - AccountNo
 - Forename
 - Surname
 - level (current level in the game)
 - email
 - experiencePoints (his experience in the game)
 - moneyWallet (the amount of game coins the player has in the game)
 - moneyBank (the amount of real money linked to the game)
- A Character has the following attributes
 - maxHealth
 - health
 - StealthScore
 - expiryDate (can be null to indicate that the character is active)
 - defenceScore
 - creationDate
 - Type
 - attackingScore
 - ManaScore
 - Name
- A Character has 1 Inventory and this inventory contain all the items that the character possesses
- The Inventory Entity contains only the Character Names that have inventories and the Character Name in Inventory is the Foreign Key and the Primary Key at the same time
- A Character can possess any number of inventory items (Main Requirement)
- A Character can possess 0 or many item types
- A character can equip and unequip an item he possesses
- every character inventory can have many weapons, or/and many armors or/and many supplies
- different characters can have different items
- Every inventory must be related to a character
- A Character can have no inventory
- A Weapon has the following attributes:
 - item (representing the weapon name)

- type (weapon type)
- range
- price
- damage_points

- An Armour has the following attributes:

- item (representing the armour name)
- body_part
- price
- defence_score

- A Supply has the following attributes:

- item (representing the supply name)
- healing_score
- price
- mana_score

- A Character can have several combat info

- every combat has a battle number, and a battle date

- a battle has the following information the damage the weapon used by the character the outcome of the battle and the defender in the battle

- A Defender is a Character and it can be deleted, but the Attacker can come back to all his old fights and see his defenders even if they are deleted

- Every Combat Info must belong to a character

Note: In Milestone #3 I have assumed that the Character Name in the Owns_Character entity is Unique and this to allow me to link the values in the combat.csv and the items.csv to the Character Table

