

CPSC 304 Project Cover Page

Milestone #: 2

Date: 03/01/24

Group Number: 72

Name	Student Number	CS Alias (Userid)	Preferred E-mail Address
Taaseen Jilani	97993992	i4e6g	taaseenjilani@gmail.com
Jacquelin Han	83279505	l5i5v	jacquelinhan@gmail.com
Silvana Huang	29032810	j1m3b	silvanahuang23@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

Each group must provide the following as a single PDF file:

1. A completed cover page (template on Canvas)

[See above.](#)

2. A brief (~2-3 sentences) summary of your project. Many of your TAs are managing multiple projects so this will help them remember details about your project.

[This project is based on a videogame, where players can choose an NPC Ally to help them go through different missions, areas in the missions, and different battles. The players can earn different rewards, their points and records are tracked in a player record.](#)

Summary of main changes and rationale

1. Specified both ISA relationships should be total and disjoint

Rationale: we missed this in Milestone 1 and we specify it in Milestone 2 for clarity

2. Instead of the “battle-involves-enemy” one-to-one relationship, we now have “battle-involves-minnion” one-to-many relationship AND “battle-involves-boss” one-to-one relationship.

Rationale: the relationship we had in Milestone 1 would imply that a battle can only have either one boss or one minion (but not both). However, this does not make sense as there should be multiple minions + 1 boss in each battle.

3. Removed children class “point” and “costume” from the Reward-ISA relationship; Mission entity now has “point” as an attribute instead of “reward earned”

Rationale: this is to simplify and remove some of the trivial child classes from the Reward-ISA relationship. Having “point” instead of “reward earned” as an attribute of Mission entity makes it more straightforward and reduces ambiguity

4. Instead of having “mission-gives-reward” one-to-many relationship, we now have “mission-gives-badges” one-to-many relationship

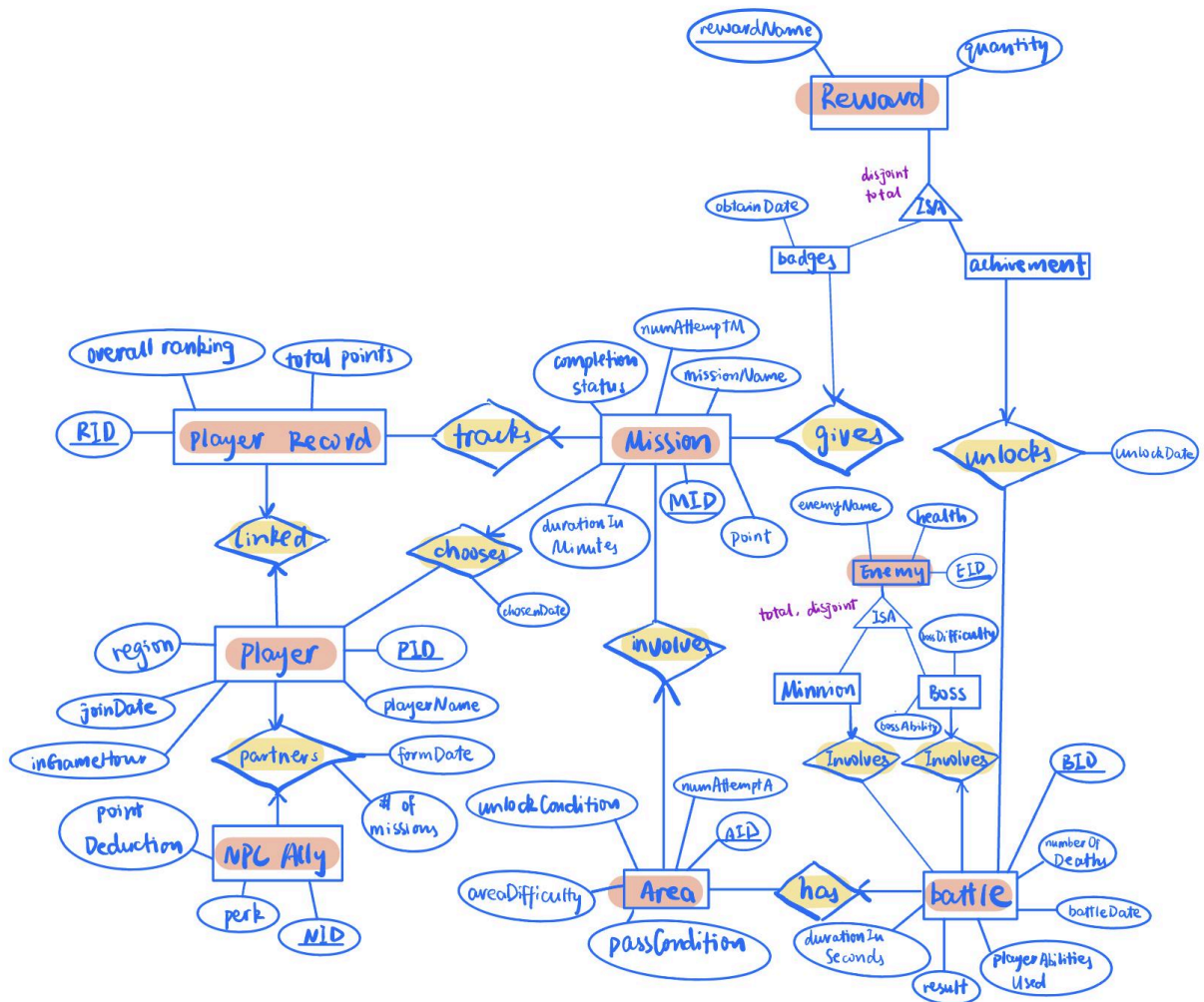
Rationale: since the Reward-ISA relationship is total and disjoint, it would be the best if we only involve “badges” and “achievement” (and not Reward) in the schema to avoid duplication of information

5. Renamed some attributes

Rationale: this is for clarity (the same names are used for multiple attributes, eg “time”, “name”, “difficulty”) and proper format

See revised ER diagram in next page ->

Revised ER Diagram



4. The schema derived from your ER diagram (above). For the translation of the ER diagram to the relational model, follow the same instructions as in your lectures. The process should be reasonably straightforward. For each table: a. List the table definition (e.g., Table1(attr1: domain1, attr2: domain2, ...)). Make sure to include the domains for each attribute. b. Specify the primary key (PK), candidate key, (CK) foreign keys (FK), and other constraints (e.g., not null, unique, etc.) that the table must maintain.

Table 1: Player (PID: varchar, playerName: varchar, region: varchar, joinDate: date, inGameHour: int)

- PK: PID
- other constraints:
 - inGameHour default 0

Table 2: NPC_Ally (NID: varchar, pointDeduction: int, perk: varchar)

- PK: NID
- other constraints:
 - pointDeduction default 0

Table 3: Partners (**PID: varchar**, **NID: varchar**, formDate: date, numMissions: int)

- PK: PID
- FK: PID references Player, NID references NPC_Ally
- other constraints:
 - NID unique

Table 4: Player_Record (RID: varchar, **PID: varchar**, overallRanking: int, totalPoints: int)

- PK: RID
- FK: PID references Player
- other constraints:
 - PID unique
 - totalPoints default 0
 - overallRanking default -1

Table 5: Chosen (MID: varchar, **PID: varchar**, chosenDate: date)

- PK: MID
- FK: MID references Mission, PID references Player

Table 6: Mission (MID: varchar, **RID: varchar**, missionName: varchar, completionStatus: int, numAttemptM: int, durationInMinutes: int, point: int)

- PK: MID

- FK: RID references Player_Record
- other constraints:
 - completionStatus default 0
 - numAttemptM default 0
 - durationInMinutes default 0
 - point default 0

Table 7: Area (AID: varchar, **MID: varchar**, passCondition: varchar, unlockCondition: varchar, numAttemptA: int, areaDifficulty: int)

- PK: AID
- FK: MID references Mission
- other constraints:
 - numAttemptA default 0

Table 8: Battle (BID: varchar, **AID: varchar**, battleDate: date, durationInSeconds: int, result: varchar, numberOfDeaths: int, playerAbilitiesUsed: varchar)

- PK: BID
- FK: AID references Area
- other constraints:
 - durationInSeconds default 0
 - numberOfDeaths default 0

Table 9: Boss (EID: varchar, **BID: varchar**, enemyName: varchar, health: int, bossDifficulty: int, bossAbility: varchar)

- PK: EID
- FK: BID references Battle
- other constraints:
 - BID unique

Table 10: Minion (EID: varchar, **BID: varchar**, enemyName: varchar, health: int)

- PK: EID
- FK: BID references Battle

Table 11: Badge(rewardName: varchar, **MID: varchar**, quantity: int, obtainDate: date)

- PK: rewardName
- FK: MID references Mission
- other constraints:
 - quantity default 0

Table 12: Achievement_Unlocked(**rewardName: varchar**, **BID: varchar**, quantity: int, unlockDate: date)

- PK: rewardName
- FK: BID references Battle
- other constraints:
 - quantity default 0

5. Functional Dependencies (FDs) a. Identify the functional dependencies in your relations, including the ones involving all candidate keys (including the primary key). PKs and CKs are considered functional dependencies and should be included in the list of FDs. You do not need to include trivial FDs such as $A \rightarrow A$. Note: In your list of FDs, there must be some kind of valid FD other than those identified by a PK or CK. If you observe that no relations have FDs other than the PK and CK(s), then you will have to intentionally add some (meaningful) attributes to show valid FDs. We want you to get a good normalization exercise. Your design must go through a normalization process. You do not need to have a non-PK/CK FD for each relation but be reasonable. If your TA feels that some non-PK/CK FDs have been omitted, your grade will be adjusted accordingly.

Table 1: Player (**PID: varchar**, playerName: varchar, region: varchar, joinDate: date, inGameHour: int)

FD1: PID -> playerName, region, joinDate, inGameHour

Table 2: NPC_Ally (**NID: varchar**, pointDeduction: int, perk: varchar)

FD1: NID -> pointDeduction, perk

FD2: perk -> pointDeduction

Table 3: Partners (**PID: varchar**, **NID: varchar**, formDate: date, numMissions: int)

FD1: PID -> NID , formDate, numMissions

Table 4: Player_Record (**RID: varchar**, **PID: varchar**, overallRanking: int, totalPoints: int)

FD1: RID -> PID , overallRanking, totalPoints

FD2: totalPoints -> overallRanking

FD3: PID -> overallRanking, totalPoints
--

Table 5: Chosen (**MID: varchar**, **PID: varchar**, chosenDate: date)

FD1: <u>MID</u> -> PID, chosenDate

Table 6: Mission (MID: varchar, **RID**: varchar, missionName: varchar, completionStatus: int, numAttemptM: int, durationInMinutes: int, point: int)

FD1: <u>MID</u> -> RID , missionName, completionStatus, numAttemptM, durationInMinutes, point
--

FD2: completionStatus -> point

Table 7: Area (AID: varchar, **MID**: varchar, passCondition: varchar, unlockCondition: varchar, numAttemptA: int, areaDifficulty: int)

FD1: <u>AID</u> -> MID , passCondition, unlockCondition, numAttemptA, areaDifficulty

FD2: MID , passCondition -> areaDifficulty

Table 8: Battle (BID: varchar, **AID**: varchar, battleDate: date, durationInSeconds: int, result: varchar, numberOfDeaths: int, playerAbilitiesUsed: varchar)

FD1: <u>BID</u> -> AID , battleDate, durationInSeconds, result, numberOfDeaths, playerAbilitiesUsed
--

Table 9: Boss (EID: varchar, **BID**: varchar, enemyName: varchar, health: int, bossDifficulty: int, bossAbility: varchar)

FD1: <u>EID</u> -> BID , enemyName, health, bossDifficulty, bossAbility
--

FD2: BID -> bossDifficulty

FD3: bossAbility -> bossDifficulty

Table 10: Minion (EID: varchar, **BID**: varchar, enemyName: varchar, health: int)

FD1: <u>EID</u> -> BID , enemyName, health

Table 11: Badge(rewardName: varchar, **MID**: varchar, quantity: int, obtainDate: date)

FD1: <u>rewardName</u> -> MID , quantity, obtainDate

FD2: MID -> quantity

Table 12: Achievement_Unlocked(rewardName: varchar, **BID: varchar**, quantity: int, unlockDate: date)

FD1: rewardName -> BID , quantity, unlockDate
FD2: BID -> quantity

6. Normalization a. Normalize each of your tables to be in 3NF or BCNF. Give the list of tables, their primary keys, their candidate keys, and their foreign keys after normalization. You should show the steps taken for the decomposition. Should there be errors, and no work is shown, no partial credit can be awarded without steps shown. The format should be the same as Step 3, with tables listed similar to Table1(attr1:domain1, attr2:domain2, ...). ALL Tables must be listed, not only the ones post normalization.

Table 1: Player (PID: varchar, playerName: varchar, region: varchar, joinDate: date, inGameHour: int)

FD1: <u>PID</u> -> playerName, region, joinDate, inGameHour

Already in BCNF

Table 2: NPC_Ally (NID: varchar, pointDeduction: int, perk: varchar)

FD1: <u>NID</u> -> pointDeduction, perk
FD2: perk -> pointDeduction

FD2 violates BCNF

NPC_Ally (NID: varchar, pointDeduction: int, perk: varchar)

-> NPC_Ally1 (perk: varchar, pointDeduction: int), NPC_Ally2 (NID: varchar, perk: varchar)

Table 3: Partners (PID: varchar, **NID: varchar**, formDate: date, numMissions: int)

FD1: <u>PID</u> -> NID , formDate, numMissions

Already in BCNF

Table 4: Player_Record (RID: varchar, **PID: varchar**, overallRanking: int, totalPoints: int)

FD1: <u>RID</u> -> PID , overallRanking, totalPoints
FD2: totalPoints -> overallRanking
FD3: PID -> overallRanking, totalPoints

FD2 and FD3 violate BCNF. Decomposing in the order of FD2, FD3:

Player_Record (RID: varchar, **PID: varchar**, overallRanking: int, totalPoints: int)

-> Player_Record1 (totalPoints: int, overallRanking: int), Player_Record2 (RID: varchar, **PID: varchar**, totalPoints: int)

-> Player_Record1 (totalPoints: int, overallRanking: int), Player_Record2 (**PID: varchar**, totalPoints: int), Player_Record3 (RID: varchar, **PID: varchar**)

Table 5: Chosen (**MID: varchar**, **PID: varchar**, chosenDate: date)

FD1: MID -> PID , chosenDate
--

Already in BCNF

Table 6: Mission (MID: varchar, **RID: varchar**, missionName: varchar, completionStatus: int, numAttemptM: int, durationInMinutes: int, point: int)

FD1: MID -> RID , missionName, completionStatus, numAttemptM, durationInMinutes, point
--

FD2: completionStatus -> point

FD2 violates BCNF

Mission (MID: varchar, **RID: varchar**, missionName: varchar, completionStatus: int, numAttemptM: int, durationInMinutes: int, point: int)

-> Mission1 (completionStatus: int, point: int), Mission2 (MID: varchar, **RID: varchar**, missionName: varchar, completionStatus: int, numAttemptM: int, durationInMinutes: int)

Table 7: Area (AID: varchar, **MID: varchar**, passCondition: varchar, unlockCondition: varchar, numAttemptA: int, areaDifficulty: int)

FD1: AID -> MID , passCondition, unlockCondition, numAttemptA, areaDifficulty

FD2: MID , passCondition -> areaDifficulty

FD2 violates BCNF

Area (AID: varchar, **MID: varchar**, passCondition: varchar, unlockCondition: varchar, numAttemptA: int, areaDifficulty: int)

-> Area1 (**MID: varchar**, passCondition: varchar, areaDifficulty: int), Area2 (AID: varchar, **MID: varchar**, passCondition: varchar, unlockCondition: varchar, numAttemptA: int)

Table 8: Battle (BID: varchar, **AID: varchar**, battleDate: date, durationInSeconds: int, result: varchar, numberOfDeaths: int, playerAbilitiesUsed: varchar)

FD1: BID -> AID , battleDate, durationInSeconds, result, numberOfDeaths, playerAbilitiesUsed
--

Already in BCNF

Table 9: Boss (EID: varchar, **BID: varchar**, enemyName: varchar, health: int, bossDifficulty: int, bossAbility: varchar)

FD1: <u>EID</u> -> BID , enemyName, health, bossDifficulty, bossAbility
FD2: BID -> bossDifficulty
FD3: bossAbility -> bossDifficulty

FD2 and FD3 violate BCNF. Decomposing in the order of FD2, FD3:

Boss (EID: varchar, **BID: varchar**, enemyName: varchar, health: int, bossDifficulty: int, bossAbility: varchar)

-> Boss1 (**BID: varchar**, bossDifficulty: int), Boss2 (EID: varchar, **BID: varchar**, enemyName: varchar, health: int, bossAbility: varchar)

Table 10: Minion (EID: varchar, **BID: varchar**, enemyName: varchar, health: int)

FD1: <u>EID</u> -> BID , enemyName, health

Already in BCNF

Table 11: Badge (rewardName: varchar, **MID: varchar**, quantity: int, obtainDate: date)

FD1: <u>rewardName</u> -> MID , quantity, obtainDate
FD2: MID -> quantity

FD2 violates BCNF

Badge (rewardName: varchar, **MID: varchar**, quantity: int, obtainDate: date)

-> Badge1 (**MID: varchar**, quantity: int), Badge2 (rewardName: varchar, **MID: varchar**, obtainDate: date)

Table 12: Achievement_Unlocked (rewardName: varchar, **BID: varchar**, quantity: int, unlockDate: date)

FD1: <u>rewardName</u> -> BID , quantity, unlockDate
FD2: BID -> quantity

FD2 violates BCNF

Achievement_Unlocked (rewardName: varchar, **BID: varchar**, quantity: int, unlockDate: date)

-> Achievement_Unlocked1 (**BID: varchar**, quantity: int), Achievement_Unlocked2 (rewardName: varchar, **BID: varchar**, unlockDate: date)

- The SQL DDL statements required to create all the tables from item #6. The statements should use the appropriate foreign keys, primary keys, UNIQUE constraints, etc. Unless you know that you will always have exactly x characters for a given character, it is better to use the VARCHAR data type as opposed to a CHAR(Y). For example, UBC courses always use four characters to represent which department offers a course. In that case, you will want to use CHAR(4) for the

department attribute in your SQL DDL statement. If you are trying to represent the name of a UBC course, you will want to use VARCHAR as the number of characters in a course name can vary greatly.

Table 1:

```
CREATE TABLE Player
(PID: varchar PRIMARY KEY,
 playerName: varchar,
 region: varchar,
 joinDate: date,
 inGameHour: int DEFAULT 0)
```

Table 2 subtables:

```
CREATE TABLE NPC_Ally1
(perk: varchar PRIMARY KEY,
 pointDeduction: int DEFAULT 0)
```

```
CREATE TABLE NPC_Ally2
(NID: varchar PRIMARY KEY,
 perk: varchar)
```

Table 3:

```
CREATE TABLE Partners
(PID: varchar PRIMARY KEY,
 NID: varchar UNIQUE,
 formDate: date,
 numMissions: int,
 FOREIGN KEY (PID) references Player,
 FOREIGN KEY (NID) references NPC Ally )
```

Table 4 Subtables:

```
CREATE TABLE Player_Record1
(totalPoints: int PRIMARY KEY DEFAULT 0,
 overallRanking: int DEFAULT -1)
```

```
CREATE TABLE Player_Record2
(PID: varchar PRIMARY KEY,
 totalPoints: int DEFAULT 0,
 FOREIGN KEY(PID) references Player)
```

```
CREATE TABLE Player_Record3
(RID: varchar PRIMARY KEY,
 PID: varchar,
 FOREIGN KEY(PID) references PlayerRecord)
```

Table 5:

```
CREATE TABLE Chosen
(MID: varchar PRIMARY KEY,
PID: varchar,
chosenDate: date,
FOREIGN KEY (MID) references Mission,
FOREIGN KEY (PID) references Player)
```

Table 6 Subtables:

```
CREATE TABLE Mission1
(completionStatus: int PRIMARY KEY DEFAULT 0,
point: int DEFAULT 0)
```

```
CREATE TABLE Mission2
(MID: varchar PRIMARY KEY,
RID: varchar,
missionName: varchar,
completionStatus: int DEFAULT 0,
numAttemptM: int DEFAULT 0,
durationInMinutes: int DEFAULT 0,
FOREIGN KEY (RID) references PlayerRecord)
```

Table 7 Subtables:

```
CREATE TABLE Area1 (
MID: varchar,
passCondition: varchar,
areaDifficulty: int,
PRIMARY KEY(MID, passCondition),
FOREIGN KEY(MID) references Mission)
```

```
CREATE TABLE Area2
(AID: varchar PRIMARY KEY,
MID: varchar,
passCondition: varchar,
unlockCondition: varchar,
numAttemptA: int DEFAULT 0,
FOREIGN KEY(MID) references Mission)
```

Table 8:

```
CREATE TABLE Battle
    (BID: varchar PRIMARY KEY,
    AID: varchar,
    battleDate: date,
    durationInSeconds: int DEFAULT 0,
    result: varchar,
    numberOfDeaths: int DEFAULT 0,
    playerAbilitiesUsed: varchar,
    FOREIGN KEY (AID) references Area)
```

Table 9 Subtables:

```
CREATE TABLE Boss1
    (BID: varchar PRIMARY KEY,
    bossDifficulty: int
    FOREIGN KEY (BID) references Battle)
```

```
CREATE TABLE Boss2
    (EID: varchar PRIMARY KEY,
    BID: varchar UNIQUE,
    enemyName: varchar,
    health: int,
    bossAbility: varchar
    FOREIGN KEY (BID) references Battle)
```

Table 10:

```
CREATE TABLE Minion
    (EID: varchar PRIMARY KEY,
    BID: varchar,
    enemyName: varchar,
    health: int,
    FOREIGN KEY (BID) references Battle)
```

Table 11 Subtables:

```
CREATE TABLE Badge1
    (MID: varchar PRIMARY KEY,
    quantity: int DEFAULT 0,
    FOREIGN KEY (MID) references Mission)
```

```
CREATE TABLE Badge2
    (rewardName: varchar PRIMARY KEY,
    MID: varchar,
    obtainDate: date,
    FOREIGN KEY (MID) references Mission)
```

Table 12 Subtables:

```
CREATE TABLE Achievement_Unlocked1
  (BID: varchar PRIMARY KEY,
   quantity: int DEFAULT 0,
   FOREIGN KEY(BID) references Battle)
```

```
CREATE TABLE Achievement_Unlocked2
  (rewardName: varchar PRIMARY KEY,
   BID: varchar,
   unlockDate: date,
   FOREIGN KEY(BID) references Battle)
```

8. INSERT statements to populate each table with at least 5 tuples. You will likely want to have more than 5 tuples so that you can have meaningful queries later. Note: Be consistent with the names used in your ER diagram, schema, and FDs. Make a note if the name has been intentionally changed.

Table 1:

```
INSERT
INTO      Player (PID, playerName, region, joinDate, inGameHour)
VALUES    ('P1', 'John Smith', 'North America', 2024-02-02, 0)

INSERT
INTO      Player (PID, playerName, region, joinDate, inGameHour)
VALUES    ('P2', 'David Thompson', 'Asia', 2024-01-01, 50)

INSERT
INTO      Player (PID, playerName, region, joinDate, inGameHour)
VALUES    ('P3', 'Jane Doe', 'Oceania', 2018-08-05, 300)

INSERT
INTO      Player (PID, playerName, region, joinDate, inGameHour)
VALUES    ('P4', 'Tammy Na', 'Asia', 2020-10-28, 195)

INSERT
INTO      Player (PID, playerName, region, joinDate, inGameHour)
VALUES    ('P5', 'Charleze Hernandez', 'South America', 2021-09-30, 88)

INSERT
INTO      Player (PID, playerName, region, joinDate, inGameHour)
VALUES    ('P6', 'Deigo Garcia', 'South America', 2019-05-22, 250)
```



```
INSERT
INTO      Player (PID, playerName, region, joinDate, inGameHour)
VALUES    ('P7', 'Davu Abebe', 'Africa', 2015-07-02, 100)
```

Table 2 Subtables:

```
INSERT
INTO      NPC_Ally1 (perk, pointDeduction)
VALUES    ('Firebreathing', 4)
```

```
INSERT
INTO      NPC_Ally1 (perk, pointDeduction)
VALUES    ('Invisibility', 3)
```

```
INSERT
INTO      NPC_Ally1 (perk, pointDeduction)
VALUES    ('Teleportation', 5)
```

```
INSERT
INTO      NPC_Ally1 (perk, pointDeduction)
VALUES    ('Flying', 3)
```

```
INSERT
INTO      NPC_Ally1 (perk, pointDeduction)
VALUES    ('Superspeed', 4)
```

```
INSERT
INTO      NPC_Ally1 (perk, pointDeduction)
VALUES    ('Defense Boost', 2)
```

```
INSERT
INTO      NPC_Ally1 (perk, pointDeduction)
VALUES    ('Offense Boost', 2)
```

```
INSERT
INTO      NPC_Ally2 (NID, perk)
VALUES    ('N1', 'Firebreathing')
```

```
INSERT
INTO      NPC_Ally2 (NID, perk)
VALUES    ('N2', 'Invisibility')
```

```
INSERT
INTO NPC_Ally2 (NID, perk)
VALUES ('N3', 'Teleportation')
```

```
INSERT
INTO NPC_Ally2 (NID, perk)
VALUES ('N4', 'Flying')
```

```
INSERT
INTO NPC_Ally2 (NID, perk)
VALUES ('N5', 'Superspeed')
```

```
INSERT
INTO NPC_Ally2 (NID, perk)
VALUES ('N6', 'Defense Boost')
```

```
INSERT
INTO NPC_Ally2 (NID, perk)
VALUES ('N7', 'Defense Boost')
```

Table 3:

```
INSERT
INTO Partners (PID, NID, formDate, numMissions)
VALUES ('P1', 'N1', 2024-02-02, 3)
```

```
INSERT
INTO Partners (PID, NID, formDate, numMissions)
VALUES ('P2', 'N2', 2024-03-01, 4)
```

```
INSERT
INTO Partners (PID, NID, formDate, numMissions)
VALUES ('P3', 'N3', 2018-08-05, 30)
```

```
INSERT
INTO Partners (PID, NID, formDate, numMissions)
VALUES ('P4', 'N4', 2021-10-29, 16)
```

```
INSERT
INTO Partners (PID, NID, formDate, numMissions)
VALUES ('P5', 'N5', 2021-10-30, 17)
```

```
INSERT
INTO Partners (PID, NID, formDate, numMissions)
```

VALUES	('P6', 'N6', 2019-05-22, 79)
INSERT INTO VALUES	Partners (PID, NID, formDate, numMissions) ('P7', 'N7', 2015-07-03, 99)

Table 4:

INSERT INTO VALUES	Player_Record1 (totalPoints, overallRanking) (100, 1)
INSERT INTO VALUES	Player_Record1 (totalPoints, overallRanking) (99, 2)
INSERT INTO VALUES	Player_Record1 (totalPoints, overallRanking) (88, 3)
INSERT INTO VALUES	Player_Record1 (totalPoints, overallRanking) (77, 4)
INSERT INTO VALUES	Player_Record1 (totalPoints, overallRanking) (66, 5)
INSERT INTO VALUES	Player_Record1 (totalPoints, overallRanking) (55, 6)
INSERT INTO VALUES	Player_Record1 (totalPoints, overallRanking) (44, 7)
INSERT INTO VALUES	Player_Record2 (PID, totalPoints) ('P1', 44)

```
INSERT
INTO      Player_Record2 (PID, totalPoints)
VALUES    ('P2', 55)
```

```
INSERT
INTO      Player_Record2 (PID, totalPoints)
VALUES    ('P3', 66)
```

```
INSERT
INTO      Player_Record2 (PID, totalPoints)
VALUES    ('P4', 77)
```

```
INSERT
INTO      Player_Record2 (PID, totalPoints)
VALUES    ('P5', 88)
```

```
INSERT
INTO      Player_Record2 (PID, totalPoints)
VALUES    ('P6', 99)
```

```
INSERT
INTO      Player_Record2 (PID, totalPoints)
VALUES    ('P7', 100)
```

```
INSERT
INTO      Player_Record3 (RID, PID)
VALUES    ('R1', 'P1')
```

```
INSERT
INTO      Player_Record3 (RID, PID)

VALUES    ('R2', 'P2')
```

```
INSERT
INTO      Player_Record3 (RID, PID)
VALUES    ('R3', 'P3')
```

```
INSERT
INTO      Player_Record3 (RID, PID)
VALUES    ('R4', 'P4')
```

```
INSERT
INTO      Player_Record3 (RID, PID)
VALUES    ('R5', 'P5')
```

```
INSERT
INTO      Player_Record3 (RID, PID)
VALUES    ('R6', 'P6')
```

```
INSERT
INTO      Player_Record3 (RID, PID)
VALUES    ('R7', 'P7')
```

Table 5:

```
INSERT
INTO      Chosen (MID, PID, chosenDate)
VALUES    ('M1', 'P1', 2024-02-02)
```

```
INSERT
INTO      Chosen (MID, PID, chosenDate)
VALUES    ('M2', 'P2', 2024-02-03)
```

```
INSERT
INTO      Chosen (MID, PID, chosenDate)
VALUES    ('M3', 'P3', 2024-02-04)
```

```
INSERT
INTO      Chosen (MID, PID, chosenDate)
VALUES    ('M4', 'P4', 2024-02-05)
```

```
INSERT
INTO      Chosen (MID, PID, chosenDate)
VALUES    ('M5', 'P5', 2024-02-06)
```

Table 6:

```
INSERT
INTO      Mission1 (completionStatus, point)
VALUES    (67, 2000)
```

```
INSERT
```

INSERT INTO VALUES	Mission1 (completionStatus, point) (47, 1600)
INSERT INTO VALUES	Mission1 (completionStatus, point) (57, 1800)
INSERT INTO VALUES	Mission1 (completionStatus, point) (12, 100)
INSERT INTO VALUES	Mission1 (completionStatus, point) (37, 1400)
INSERT INTO durationInMinutes) VALUES	Mission2 (MID, RID, missionName, completionStatus, numAttemptM, (‘M1’, ‘R1’, ‘Nest’, 67, 12, 340)
INSERT INTO durationInMinutes) VALUES	Mission2 (MID, RID, missionName, completionStatus, numAttemptM, (‘M2’, ‘R2’, ‘Angus’, 45, 42, 240)
INSERT INTO durationInMinutes) VALUES	Mission2 (MID, RID, missionName, completionStatus, numAttemptM, (‘M3’, ‘R3’, ‘HEBB’, 34, 15, 350)
INSERT INTO durationInMinutes) VALUES	Mission2 (MID, RID, missionName, completionStatus, numAttemptM, (‘M4’, ‘R4’, ‘Hennings’, 47, 52, 123)
INSERT INTO durationInMinutes) VALUES	Mission2 (MID, RID, missionName, completionStatus, numAttemptM, (‘M5’, ‘R5’, ‘Buchanan’, 97, 12, 345)

Table 7:

INSERT
INTO
VALUES Area1 (MID, areaDifficulty)
(‘M1’, 1)

INSERT
INTO
VALUES Area1 (MID, areaDifficulty)
(‘M2’, 2)

INSERT
INTO
VALUES Area1 (MID, areaDifficulty)
(‘M3’, 3)

INSERT
INTO
VALUES Area1 (MID, areaDifficulty)
(‘M4’, 4)

INSERT
INTO
VALUES Area1 (MID, areaDifficulty)
(‘M5’, 5)

INSERT
INTO
VALUES Area2 (AID, MID, passCondition, unlockCondition)
(‘A1’, ‘M1’, ‘Find golden egg’, ‘None’, 1)

INSERT
INTO
VALUES Area2 (AID, MID, passCondition, unlockCondition)
(‘A2’, ‘M2’, ‘Find and eat hidden Angus beef burger’, ‘Pass Nest’, 2)

INSERT
INTO
VALUES Area2 (AID, MID, passCondition, unlockCondition)
(‘A3’, ‘M3’, ‘Solve physics question’, ‘Pass Angus’, 3)

INSERT
INTO
VALUES Area2 (AID, MID, passCondition, unlockCondition)
(‘A4’, ‘M4’, ‘Find all missing puzzle pieces’, ‘Pass HEBB’, 4)

INSERT
INTO
VALUES Area2 (AID, MID, passCondition, unlockCondition)
(‘A5’, ‘M5’, ‘Win history trivia’, ‘Pass Hennings’, 5)

Table 8:

INSERT INTO playerAbilitiesUsed) VALUES	Battle (BID, AID, battleDate, durationInSeconds, result, numberOfDeaths, (‘B1’, ‘A1’, 2024-02-03, 45, ‘LOSS’, 34, “FireBreathing”)
INSERT INTO playerAbilitiesUsed) VALUES	Battle (BID, AID, battleDate, durationInSeconds, result, numberOfDeaths, (‘B2’, ‘A2’, 2024-02-01, 55, ‘LOSS’, 44, “Invisibility”)
INSERT INTO playerAbilitiesUsed) VALUES	Battle (BID, AID, battleDate, durationInSeconds, result, numberOfDeaths, (‘B3’, ‘A3’, 2024-02-04, 56, ‘LOSS’, 60, “Offense boost”)
INSERT INTO playerAbilitiesUsed) VALUES	Battle (BID, AID, battleDate, durationInSeconds, result, numberOfDeaths, (‘B4’, ‘A4’, 2024-01-04, 56, ‘LOSS’, 30, “Defense boost”)
INSERT INTO playerAbilitiesUsed) VALUES	Battle (BID, AID, battleDate, durationInSeconds, result, numberOfDeaths, (‘B5’, ‘A5’, 2024-01-06, 26, ‘LOSS’, 40, “Offense boost”)

Table 9:

INSERT INTO VALUES	Boss1 (BID, bossDifficulty) (‘B1’, 4)
INSERT INTO VALUES	Boss1 (BID, bossDifficulty) (‘B2’, 4)
INSERT INTO VALUES	Boss1 (BID, bossDifficulty) (‘B3’, 3)
INSERT INTO	Boss1 (BID, bossDifficulty)

VALUES	('B4', 3)
INSERT INTO VALUES	Boss1 (BID, bossDifficulty) ('B5', 2)
INSERT INTO VALUES	Boss2 (EID, BID, enemyName, health, bossAbility) ('E1', 'B1', 'Jake', 45, "FirePower")
INSERT INTO VALUES	Boss2 (EID, BID, enemyName, health, bossAbility) ('E2', 'B2', 'Gina', 55, "WaterPower")
INSERT INTO VALUES	Boss2 (EID, BID, enemyName, health, bossAbility) ('E3', 'B3', 'Skully', 45, "FirePower")
INSERT INTO VALUES	Boss2 (EID, BID, enemyName, health, bossAbility) ('E4', 'B4', 'Hitchcock', 65, "FirePower")
INSERT INTO VALUES	Boss2 (EID, BID, enemyName, health, bossAbility) ('E5', 'B5', 'Pippy', 45, "DenseShock")

Table 10:

INSERT INTO VALUES	Minion (EID, BID, enemyName, health) ('E1', 'B1', 'Stuart', 100)
INSERT INTO VALUES	Minion (EID, BID, enemyName, health) ('E2', 'B2', 'Serpentine", 88)
INSERT INTO VALUES	Minion (EID, BID, enemyName, health) ('E3', 'B3', 'Rocky', 27)
INSERT INTO	Minion (EID, BID, enemyName, health)

VALUES	('E4', 'B4', 'Piranha', 44)
INSERT	
INTO	Minion (EID, BID, enemyName, health)
VALUES	('E5', 'B5', 'Smokeball', 50)

Table 11:

INSERT	
INTO	Badge1 (MID, quantity)
VALUES	('M1', 5)

INSERT	
INTO	Badge1 (MID, quantity)
VALUES	('M2', 67)

INSERT	
INTO	Badge1 (MID, quantity)
VALUES	('M3', 56)

INSERT	
INTO	Badge1 (MID, quantity)
VALUES	('M4', 55)

INSERT	
INTO	Badge1 (MID, quantity)
VALUES	('M5', 456)

INSERT	
INTO	Badge2 (rewardName, MID, obtainDate)
VALUES	('Badge of Honour', 'M1', 2023-04-12)

INSERT	
INTO	Badge2 (rewardName, MID, obtainDate)
VALUES	('Badge of Merit', 'M2', 2023-04-12)

INSERT	
INTO	Badge2 (rewardName, MID, obtainDate)
VALUES	('Badge of Participation', 'M3', 2023-02-12)

INSERT	
INTO	Badge2 (rewardName, MID, obtainDate)

VALUES ('Badge of Improvement', 'M4', 2023-01-12)

INSERT
INTO Badge2 (rewardName, MID, obtainDate)
VALUES ('Badge of Skill', 'M5', 2023-02-22)

Table 12:

INSERT
INTO Achievement_Unlocked1 (BID, quantity)
VALUES ('B1', 10)

INSERT
INTO Achievement_Unlocked1 (BID, quantity)
VALUES ('B2', 20)

INSERT
INTO Achievement_Unlocked1 (BID, quantity)
VALUES ('B3', 30)

INSERT
INTO Achievement_Unlocked1 (BID, quantity)
VALUES ('B4', 40)

INSERT
INTO Achievement_Unlocked1 (BID, quantity)
VALUES ('B5', 50)

INSERT
INTO Achievement_Unlocked2 (rewardName, BID, date)
VALUES ('Trophy', 'B1', 2024-02-01)

INSERT
INTO Achievement_Unlocked2 (rewardName, BID, date)
VALUES ('Diamonds', 'B2', 2024-02-02)

INSERT
INTO Achievement_Unlocked2 (rewardName, BID, date)
VALUES ('Rubies', 'B3', 2024-02-03)

```
INSERT
INTO      Achievement_Unlocked2 (rewardName, BID, date)
VALUES    ('Level Up', 'B4', 2024-02-04)
```

```
INSERT
INTO      Achievement_Unlocked2 (rewardName, BID, date)
VALUES    ('Sword and Shield', 'B5', 2024-02-05)
```