CS 340 Group 12: Project Step 5: Final
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http://flip2.engr.oregonstate.edu:5343/

STEP 4 PEER REVIEWS
Martin Edmunds
CREATE functionalities

Does the INSERT form actually work for entities and relationships, as required in the Specs?
I am unable to insert a character into the database with the following attributes:
{Name:'Test', Armor:'Leather', Slashing Defense:3, Piercing Defence: 2, Bludegoning Defense: 2, Class:'Damage', Faction:'Humans', Party:2}
From the website, I am unable to tell what type of values need to be entered (raw strings, or number, or foreign key ids)
Even when changing my input fields to the foreign keys described in the database design pdf, I still get an 'bad code' error. Maybe dropdown boxes to force the user to input valid types would help. I current do not see a way to insert for Party, Armor, Weapons, Quests, or Faction. I do not see the ability to insert or modify relationships. Inserting for factions works correctly.

Does INSERTing rows in the "M entity" of the 1-to-M relationship rows affect the INSERTing of rows in the "1 entity"?
I do not see the ability to insert or modify relationships.

Does INSERTing rows in the "M entity" of the M-to-M relationship rows affect the INSERTing of rows in the other "M entity"?
I do not see the ability to insert or modify relationships.

Anything else that you think is important for the CREATE functionalities and could be improved?
Since this is the sample webpage, I assume the other functionalities will follow; just be sure to add the insertion of all the entities and relationships described in the PDF.

READ functionalities

Are rows being listed for all relationships, as described in the Specs?
I do not see relationship tables being shown, other than foreign keys displayed in the current characters table.

Is there a better way that data could be displayed on these pages? OR Could the style of the webpage be improved?

I think the form style for the armor input on the character creation page could be improved, its hard to tell what each box corresponds to.

Anything else that you think is important for READ functionalities and could be improved?
Make sure to include read functionality for the other tables that you have described in the pdf.

UPDATE functionalities

Is the UPDATE functionality properly implemented for at least one entity?
No. I currently do not see a way to update either of the two pages so far: Factions and Characters.

What is the effect of this UPDATE on the relationships that the entity is participating in ?
N/A

What is the effect of CREATE and DELETE operations on the other entities that are participating in the relationship with this entity?
When deleting a faction, the character table is updated to show the removal of all characters that had that faction.
Delete operates correctly on the faction table.

Anything else that you think is important for the UPDATE functionality?
Make sure to include a way to edit entries in the tables in your database/website

DELETE functionalities

Does DELETE work as required by the Project Guide AND as defined by the Project Outline?
The only delete functionality I was able to test was the faction delete; the table correctly cascaded upon deletion.

Haofeng Tian
- Does the INSERT form actually work for entities and relationships, as required in the Specs?
Report error when adding a new element

- Does INSERTing rows in the "M entity" of the 1-to-M relationship rows affect the INSERTing of rows in the "1 entity"?
No

- Does INSERTing rows in the "M entity" of the M-to-M relationship rows affect the INSERTing of rows in the other "M entity"?

No

- Anything else that you think is important for the CREATE functionalities and could be improved?
No

READ functionalities
- Are rows being listed for all relationships, as described in the Specs?
No

- Is there a better way that data could be displayed on these pages? OR Could the style of the webpage be improved?
No

- Anything else that you think is important for READ functionalities and could be improved?
No

UPDATE functionalities
- Is the UPDATE functionality properly implemented for at least one entity?
No

- What is the effect of this UPDATE on the relationships that the entity is participating in?
No

- What is the effect of CREATE and DELETE operations on the other entities that are participating in the relationship with this entity?
No

- Anything else that you think is important for the UPDATE functionality?
No

DELETE functionalities
-Does DELETE work as required by the Project Guide AND as defined by the Project Outline?
Yes

Milad Mikeal

- ***CREATE functionalities***

    - Does the INSERT form actually work for entities and relationships, as required in the Specs?
        - I tried inserting a character. It redirected to a page of json, but I don't think it got added to the DB. Faction insert works though.
    - Does INSERTing rows in the "M entity" of the 1-to-M relationship rows affect the INSERTing of rows in the "1 entity"?
        - Faction insert works. Character insert doesn't.
    - Does INSERTing rows in the "M entity" of the M-to-M relationship rows affect the INSERTing of rows in the other "M entity"?
        - Don't see M-M relationship.
    - Anything else that you think is important for the CREATE functionalities and could be improved?
        - When inserting a character, we can't tell which ID is associated with which party.
- ***READ functionalities***
    - Are rows being listed for all relationships, as described in the Specs?
        - Only relationship I see is that of the party in characters. But it's represented by an integer when inserting so we don't know what it's associated with.
    - Is there a better way that data could be displayed on these pages? OR Could the style of the webpage be improved?
        - Well layout isn't finished. But a navbar could really help.
    - Anything else that you think is important for READ functionalities and could be improved?
        - Use bootstrap for easy layout.
- ***UPDATE functionalities***
    - *Is the UPDATE functionality properly implemented for at least one entity?*
        - *n/a*
    - *What is the effect of this UPDATE on the relationships that the entity is participating in ?*
        - *n/a*
    - *What is the effect of CREATE and DELETE operations on the other entities that are participating in the relationship with this entity?*
        - *n/a*
    - *Anything else that you think is important for the UPDATE functionality?*
        - *n/a*
- ***DELETE functionalities***

    - *Does DELETE work as required by the Project Guide AND as defined by the Project Outline?*

        - *n/a*
    - *(I leave it to your judgment to determine what other things are important to review for DELETE functionalities.)*

James Wise
CREATE functionalities
Does the INSERT form actually work for entities and relationships, as required in the Specs?
No. I receive an error ER_BAD_FIELD_ERROR

Does INSERTing rows in the "M entity" of the 1-to-M relationship rows affect the INSERTing of rows in the "1 entity"?
Unable to modify

Does INSERTing rows in the "M entity" of the M-to-M relationship rows affect the INSERTing of rows in the other "M entity"?
Unable to modify

Anything else that you think is important for the CREATE functionalities and could be improved?
Adding labels and other identifying information to the input fields

READ functionalities
Are rows being listed for all relationships, as described in the Specs?
Unable to tell

Is there a better way that data could be displayed on these pages? OR Could the style of the webpage be improved?
I'm unable to tell what input boxes respond to what

Anything else that you think is important for READ functionalities and could be improved?
Usability and formatting needs to be a higher priority

UPDATE functionalities
Is the UPDATE functionality properly implemented for at least one entity?
Unable to update

What is the effect of this UPDATE on the relationships that the entity is participating in ?
No idea

What is the effect of CREATE and DELETE operations on the other entities that are participating in the relationship with this entity?
Unable to tell
Anything else that you think is important for the UPDATE functionality?
DELETE functionalities

Does DELETE work as required by the Project Guide AND as defined by the Project Outline?
no
(I leave it to your judgment to determine what other things are important to review for DELETE functionalities.)

Clayon Hadley

- Does the INSERT form actually work for entities and relationships, as required in the Specs?
    - Yes it works for factions but not for characters, I received a bad field error
- Does INSERTing rows in the "M entity" of the 1-to-M relationship rows affect the INSERTing of rows in the "1 entity"?
    - No
- Does INSERTing rows in the "M entity" of the M-to-M relationship rows affect the INSERTing of rows in the other "M entity"?
    - No
- Anything else that you think is important for the CREATE functionalities and could be improved?
    - The layout for armor could be better. Perhaps a dropdown menu for armor types would make sense.

READ:

- Are rows being listed for all relationships, as described in the Specs?
    - Yes
- Is there a better way that data could be displayed on these pages? OR Could the style of the webpage be improved?
    - Style is just standard html
- Anything else that you think is important for READ functionalities and could be improved?
    - No

UPDATE:

- Is the UPDATE functionality properly implemented for at least one entity?
    - No
- What is the effect of this UPDATE on the relationships that the entity is participating in ?
    - Unknown
- What is the effect of CREATE and DELETE operations on the other entities that are participating in the relationship with this entity?
    - Not implemented
- Anything else that you think is important for the UPDATE functionality?

    - Not implemented

DELETE:

- Does DELETE work as required by the Project Guide AND as defined by the Project Outline?
    - Works for factions, unsure of characters because I could not add one to attempt deleting

STEP 3 PEER REVIEWS

Wei Huang:

An ideal peer review Data Manipulation Queries would answer all of the following questions:
Are the queries syntactically correct? Disregard the part where input will be substituted as shown in the sample_data_manipulation_queries.**sql it looks good.**

Are there queries providing all functionalities as required by the CS340 Project Guide ? What query is missing ? What needs to be fixed? **it looks good.**

Do the queries cover the relationships as required by the CS340 Project Guide?
Yes.

An ideal peer review for the HTML Pages would answer all of the following questions.
Does each functionality listed in the CS340 Project Guide have a corresponding HTML page? (It's okay to implement multiple functionalities on the same HTML page) t**here is no delete dunction and the updata and add funtion is no work. these URLs are no connect together.**
Is there a better way that data could be displayed on SHOW functionality pages? these is no data show on the html

Is there a better way that the forms for UPDATE and ADD functionalities could be implemented? **give the function for add and updata bottons**
Is there a better way that the DELETE functionalities could be implemented? **add a delete botton on the each table**

Is there a way to search OR filter data ? (Remember, it need not work since these are just HTML pages) **N/A**

An ideal peer review for a DDQ file would answer all of the following questions:
Is the SQL file syntactically correct? This can be easily verified by importing/copy-pasting it in phpmyadmin. (Do not forget to take backup of your own database before you do this!) **yes**

Are the data types appropriate considering the description of the attribute in the database outline? **Yes**

Are the foreign keys correctly defined when compared to the Schema? **Yes**

Are relationship tables present when compared to the ERD/Schema? **Yes**

Christopher Shannon
Data Manipulation Queries
Are the queries syntactically correct? Disregard the part where input will be substituted as shown in the sample_data_manipulation_queries.sql.
Yes the queries appear to be syntactically correct.

Are there queries providing all functionalities as required by the CS340 Project Guide ? What query is missing ?
Yes there are queries for all functionalities as required by the project guide.

Do the queries cover the relationships as required by the CS340 Project Guide?
Yes the queries cover the relationships required by the project guide.

HTML Pages
Does each functionality listed in the CS340 Project Guide have a corresponding HTML page? (It's okay to implement multiple functionalities on the same HTML page):
Yes each function has its own HTML page.

Is there a better way that data could be displayed on SHOW functionality pages?
The current html page just shows static text and does not show any data.

Is there a better way that the forms for UPDATE and ADD functionalities could be implemented?
Add and Update are currently implemented using the same button. I would recommend you separate these functions away from each other to make it more clear what the user is doing.

Is there a better way that the DELETE functionalities could be implemented?
Delete is currently not implemented.

Is there a way to search OR filter data ? (Remember, it need not work since these are just HTML pages)
The ability to search/ filter data is currently not implemented.

DDQ file
Is the SQL file syntactically correct? This can be easily verified by importing/copy-pasting it in phpmyadmin. (Do not forget to take backup of your own database before you do this!)

Yes the file appears to be syntactically correct.

Are the data types appropriate considering the description of the attribute in the database outline?
Yes the data types chosen appear to be appropriate choices.

Are the foreign keys correctly defined when compared to the Schema?
Yes the foreign keys appear to be correctly defined.

Are relationship tables present when compared to the ERD/Schema?
Yes all of the documented relationships from the ERD/Schema are included as relationship tables.

Michael McCabe
Data Manipulation Queries
Are the queries syntactically correct? Disregard the part where input will be substituted as shown in the sample_data_manipulation_queries.sql **Yes**.

Are there queries providing all functionalities as required by the CS340 Project Guide ? What query is missing ? **Looks okay, but for tables where you're looking up something often, consider storing them in the normal table.**

Do the queries cover the relationships as required by the CS340 Project Guide? **Yes**.

HTML Pages
Does each functionality listed in the CS340 Project Guide have a corresponding HTML page? (It's okay to implement multiple functionalities on the same HTML page) **I really like this!**

Is there a better way that data could be displayed on SHOW functionality pages? **No**.

Is there a better way that the forms for UPDATE and ADD functionalities could be implemented?**I like the way it is set up now.**
Is there a better way that the DELETE functionalities could be implemented? **Not implemented yet, I think.**

Is there a way to search OR filter data ? (Remember, it need not work since these are just HTML pages) **Yes**.

DDQ file
Is the SQL file syntactically correct? This can be easily verified by importing/copy-pasting it in phpmyadmin. (Do not forget to take backup of your own database before you do this!) **Yes.**

Are the data types appropriate considering the description of the attribute in the database outline? **Yes, the data types are appropriate**

Are the foreign keys correctly defined when compared to the Schema? **Yes**

Are relationship tables present when compared to the ERD/Schema? **Yes, the relationships are included**

Haolin Liu

- ***Data Manipulation Queries***
    1. Are the queries syntactically correct? Disregard the part where input will be substituted as shown in the sample_data_manipulation_queries.sql Yes, they are syntactically correct.
    2. Are there queries providing all functionalities as required by the CS340 Project Guide ? What query is missing ? What needs to be fixed? I think they are all good.
    3. Do the queries cover the relationships as required by the CS340 Project Guide? Yes
- ***HTML Pages***
    1. Does each functionality listed in the CS340 Project Guide have a corresponding HTML page? There is no add funtion
    2. Is there a better way that data could be displayed on **SHOW** functionality pages? There is no data.
    3. Is there a better way that the forms for **UPDATE** and **ADD** functionalities could be implemented? Update looks good. May need add funtion.
    4. Is there a better way that the **DELETE** functionalities could be implemented? no button
    5. Is there a way to **search** OR **filter** data ? (Remember, it need not work since these are just HTML pages) no
- ***DDQ file***
    1. Is the SQL file **syntactically correct?** This can be easily verified by importing/copy-pasting it in phpmyadmin. (*Do not forget to take backup of your own database before you do this!*) yes
    2. Are the **data types appropriate** considering the description of the attribute in the database outline? yes
    3. Are the **foreign keys correctly defined** when compared to the Schema? yes
    4. Are **relationship tables** present when compared to the ERD/Schema? yes

STEP 2 PEER REVIEWS

Kaylin Lapan:

ERD

1. Are the attributes for each entity in the ERD the same as that described in the database outline?

Overall it looks good. There are some inconsistencies with naming conventions used between the ERD and outline.

- Is the Entity “Player” or “Character”?
- Is the attribute in the ERD “Party” table “character_id” or just “character”?

2. Is the participation of entities in the relationships same as that described in the outline?

In order for the many-to-many, Parties to Quests, relationship to exist “Quests” needs to be added to the list of Entities and a table needs to be added to the ERD representing “Quests”.

3. Is the cardinality of entities in the relationships same as that described in the outline?

Weapons to characters should be a many-to-many relationship as shown in the ERD. The outline should also describe the relationship from the weapon to the character like it has described the relationship from the character to the weapon, “a player character can choose to bring zero or more weapons with them on a journey, while a weapon can have many or no owners”.

Similarly, with the relationship between Players and class, this is a one-to-many relationship because according to the ERD, “each player must have only one class, while a class may apply to zero or more players”.

4. Based on the Database outline could any of the relationships be better off described as an Entity instead?

No, I think this group did a good job distinguishing between entities and relationships.

5. Is there something that could be changed/improved in the E R Diagram and/or the overall database design?

This is a cool project, just make sure to add the “Quests” entity and correctly assess cardinality in relationships.

Schema

1. Are the relationship tables present where required and correctly defined, when compared with the database outline?

The many-to-many relationships need their own tables in the schema.

- Weapons to Characters should have a “weapons_characters” table that includes the id’s for both entities.
- Parties to Quests should have a “parties_quests” table that include the id’s for both entities.

2. Are foreign keys present where required and correctly defined, when compared with the database outline?

The notation for the foreign key should have the arrow pointing from the foreign key to the primary key, this schema reverses that.

3. Do the entity attributes match those described in the outline?
Yes, except for the "Quest" entity descriped in the outline's relationships.
4. Is there something that could be changed/improved in the Schema and/or the overall database design?
It's difficult to tell which arrows are going to wich keys because many of the lines overlap. If possible, to clear up confusion, perhaps try different color arrows or do not allow the arrows to overlap.

Sean Wilmarth
ERD
1. Are the attributes for each entity in the ERD the same as that described in the database outline?
Party - Should be Character_id instead of character

2. Is the participation of entities in the relationship same as that described in the outline?
The many-to-many Quests entity is missing.

3. Is the cardinality of entities in the relationship same as that described in the outline?
I think that weapons and armor should be many-to-many. Unless, an armory only has one sword, shield, etc. I'd assume to characters can have the same weapon or piece of armor.

4. Based on the Database outline could any of the relationships be better off described as an Entity instead?
The Character entity seems like it is more of a composite entity. Perhaps both Character and Quest can be composite entities?

5. Is there something that could be changed/improved in the ER Diagram and/or the overall database design?
Same answer as #4.

Schema
1. Are the relationship tables present where required and correctly defined, when compared with the database outline?
Yes, they are the same.

2. Are foreign keys present where required and correctly defined, when compared with the database outline?
Yes, they are correctly defined and include the relationship arrows. However, the arrows are backwards.

3. Do the entity attributes match those described in the outline?
No, Character should be faction_id and party_id.

4. Is there something that could be changed/improved in the Schema and/or the overall database design?
Just missing the Quest entity.

Luke Johnson
1. Are the attributes for each entity in the ERD the same as that described in the database outline?
It appears that everything looks correct in the entities section.

2. Is the participation of entities in the relationship same as that described in the outline?
Wep_id in the player character entity says it will contain the id of weapon. This is suggesting a player can only have one weapon. The relationship says the player can bring one or many weapons with them. This will need to be adjusted.
Armor_id says it cant be null, yet the relationship says the player can take one or less sets of armor, and it says it is a one to many relationship. This needs to be changed.
Im not sure I understand the quests and how the impliement into the database. There is no entity or entity attribute called quest.
(After typing this up I realized we are supposed to more just review the ERD, but I figured id keep it here as it may be helpful, or I may be misunderstanding it.)
Quests are missing from this ERD.

3. Is the cardinality of entities in the relationship same as that described in the outline?

Similar to what was answered above. It appears armor and weapons relationships need to be looked at again.

4. Based on the Database outline could any of the relationships be better off described as an Entity instead?

The entities appear to be well separated.

5. Is there something that could be changed/improved in the ER Diagram and/or the overall database design?

Missing quests, otherwise, it looks good.

Schema
1. Are the relationship tables present where required and correctly defined, when compared with the database outline?

Yes they look the same as the outline

2. Are foreign keys present where required and correctly defined, when compared with the database outline?

They do exists, however the arrows point in the opposite direction.

3. Do the entity attributes match those described in the outline?

In Character, faction and party should be faction_id and party_id

4. Is there something that could be changed/improved in the Schema and/or the overall database design?

Nope, it appears to be in pretty good shape. In the future the diagrams could be improved.

Fixes based on previous feedback

Final Fixes Based on Feedback

The previous step of our website was lacking in some of the implementation requirements and the feedback that we received focused on getting these features working as well as making a few other changes.

Focusing on the CREATE functionalities, we added the feature to insert characters into the database with specific attributes as well as the ability to insert and modify relationships. We implemented adding to every table directly, other than classes since that is intended to only contain the classic tank, healer and damage roles.

The feedback that we received for the READ functionalities was that there was no data was displayed and that the page could be stylistically improved. The changes we made based on this feedback was to populate the tables in our database and to make sure the READ functions were working. We also added some styling to the webpages to make them aesthetically pleasing. In addition, a horizontal navigation bar was implemented in order to organize make it easier to navigate through the different pages of the website. Also we enabled users to search characters by first name or by their party.

We were unable to have the UPDATE functionalities ready during the last step and the feedback we received highlighted the fact. We fixed this issue by adding the ability to update to the party entity. We implemented the update in such a way that the party can be assigned to a null faction removing its tie to the faction entity. The party faction relationship is a many to one relationship.

Previously, the delete functionality was available in the faction entity. We made improvements in DELETE functions by adding the ability to delete from characters, parties and the quest parties many to many relationship.

As well as these implementation changes, we also made some design decisions based on the scope of our database. The scope of our initial idea was too big and we decided to cut out some features in order to make our database more efficient. This included removing some of the customizability of our entities. For our classes entity, we initially planned on allowing users to freely add, edit, and delete classes . However, we decided that having classes set was a better design decision.

Fixes based on Step 3 feedback

The feedback that we received from our peers highlighted a few possible improvements that we could make to our database. The reviews focused on improving the functionality of our delete and search/filter. In our previous version we were missing the search/filter feature which we will be adding into our final draft. Also, it came to our attention that the current pages were not populated with any data. This was done intentionally because we did not want to fill the tables with arbitrary or static data. This will be fixed in the final implementation and data will be displayed properly once all of our CRUD features are properly added. Another change we decided to make was to remove the many to many weapon relationships. We decided that adding weapons as a string in the characters table was a better design decision.

As of now, the implementation of our website features are not complete. We have been able to implement our characters page that shows all of the current characters in the database. Adding, deleting, and updating are currently cause 404 and 500 errors and we aren’t sure how they affect the data. So to be safe we have disabled them in the current forever version to insure the one peer reviewer won't accidentally wipe or corrupt data before others can view it.

Fixes based on STEP 2 feedback:

We received two recommend changes for our outline. The first was using varchars instead of strings since SQL does not contain a String data type. The second was specifically declaring what numeric datatype we will be using for numeric attributes. Both of these were quite easy to correct, we simply changed strings to varchars and numbers to ints. Using anything other than ints for our database doesn't make much sense. It was also mentioned that we had decided on quite a large database, upon a second look we agreed. In order to save ourselves a good amount of unnecessary work we removed a few entities, this was the most difficult change since we had to insure our of the remaining relationships still functioned properly.

Actions based on STEP 1 feedback:

The first major change we made based off of the feedback was to the schema. We hadn't properly displayed our two many to many relationships, so we added tables to represent those. We also added the quests entity to the outline, ERD and schema. Then we corrected some spelling mistakes and syntactical errors in the ERD. And we swapped the direction of the arrows in schema to point from the foreign key to the primary key. Also we standardized the name convention of player character to character. In addition to these changes, our grader commented that our database would be large with multiple entities. This led us to possibly scaling back the scope of the database as we continue to build.

Other changes:

We decided to change armors relationship with characters to a one to one, and parties relationship to characters was changed to a one to many relationship. Classes relationship to characters was also changed to a one to many, it was a one to one which inadvertently would break the database. We believe this more accurately describes the game in the way we intend it to work.

Project Outline and Database Outline, ERD and Schema Updated Version

Updated Project Outline

We will be making a database that models a party system in a fantasy game. This game will be a standard run of the mill multiplayer cooperative game where groups of people team up to complete quests for their faction. The goal is to get your faction enough influence points to take over regions, influence is obtained by completing quests, the more difficult the quest the more influence the faction is awarded. The characters will have various tools at their disposal which can be brought on quests to make the journey easier.

Updated Database Outline:

Entities:

- Character: Character is the main entity and has relationships with all other entities. Has the following attributes:
    - id: Int that is automatically assigned to each character when they are added to our database. An auto-incrementing Int which is the primary key.
    - Name: Varchar 0 to 100 characters that is the name of character and can't be null. Defaults to an empty string.

    - Weapon: Varchar 0 to 100 characters that is the name of the weapon, can be null. Default is null.
    - Armor_id: Armor Id. Can't be null. No default. Will contain id of Armor.
    - Class_id: ID of class. Can't be null. No default. Will contain the id of the class. Character must be a class that is in our database.
    - Faction_id: Faction ID. Can't be null. No default. Will contain the id of faction. Character must be a faction that is on our database.
    - Party_id: Party ID, can't be null, a character can be in at most one party.
- Party: Parties consist of characters.
    - Id: Int that is automatically assigned to a party upon creation. An auto-incrementing Int which is the primary key.
    - Name: Varchar 0 to 100 characters that is the name of the party and can't be null. No default.
    - Faction: ID of a faction. required, cannot be null.
- Armor: Different types of armor. Consists of
    - id: Int that is automatically assigned to type of armor as it is added. An auto-incrementing Int which is the primary key.
    - Character_id: Character ID, cannot be null, armor can be related to at most one character.
    - Type: Varchar max 100 characters, cannot be null, no default. I.e: cloth, leather, mail, plate.
    - Slashing defense: Int -50 to 50, default is 0.
    - Piercing defense: Int -50 to 50, default is 0.
    - Bludgeoning defense: Int -50 to 50, default is 0.
- Class:
    - id: Int that is automatically assigned to classes as they are added. An auto-incrementing Int which is the primary key.
    - Type: Varchar max 100 characters. I.e tank, healer, damage dealer.
- Faction:
    - Id: Auto incrementing Int that is the primary key that is assigned to factions as they are added.
    - Name: Varchar max 100 characters. Name of the faction.
- Quests:
    - Id: Auto incrementing Int that is the primary key that is assigned to quests as they are added.
    - Name: Varchar max 100 characters. Name of the quest.

Relationships:

Parties need characters - *one to many relationship*, a party is related to zero or more characters otherwise it is not a party. A character needs to be in a party and can only be one party.

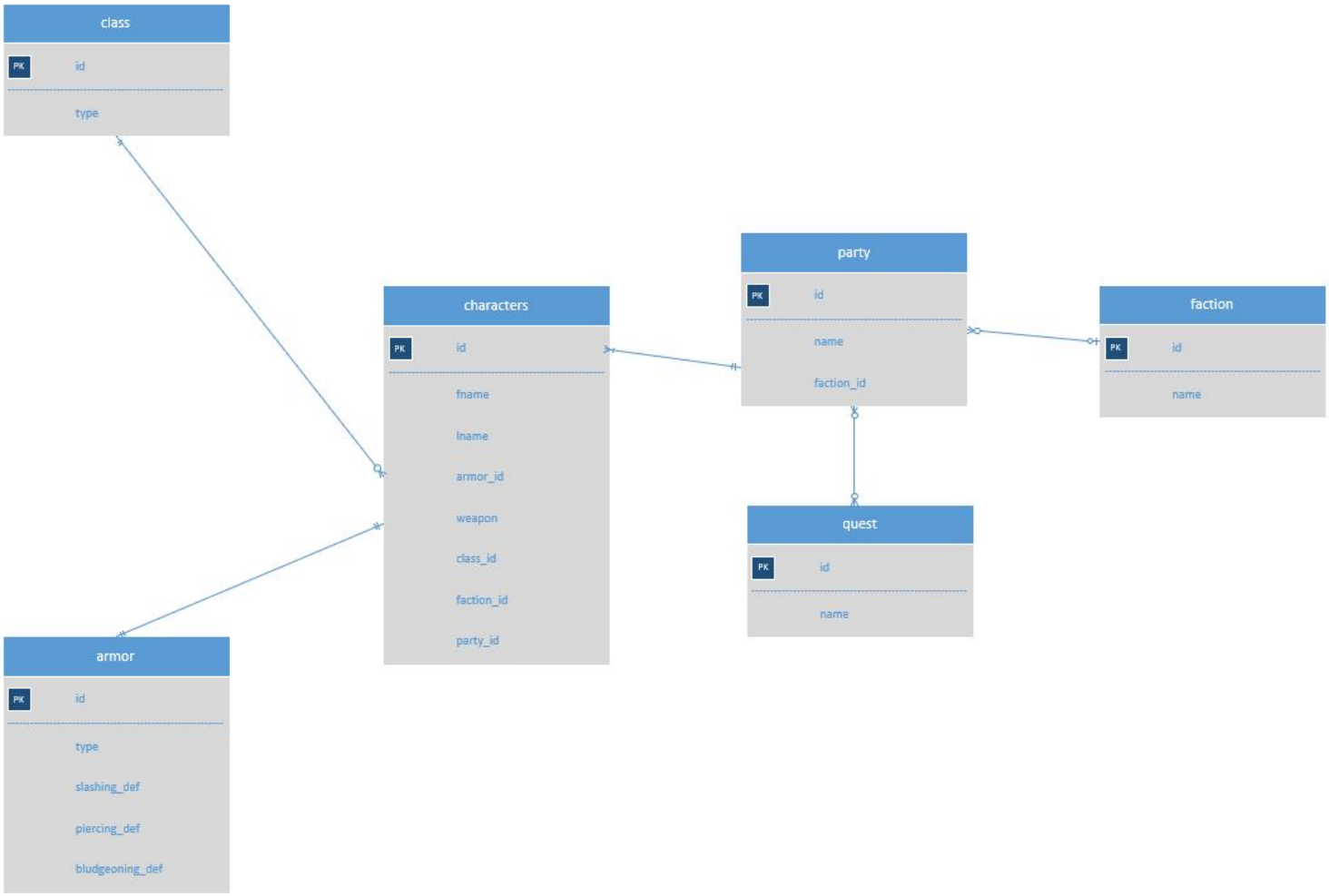
Armor can be taken by characters - *one to one,* a character must own an armor set to go questing, each armor set is unique and tailor fit therefore is owned by only one character.

Parties belong to factions - *many to one* relationship, a party can be apart of a single faction, a faction can have zero or more parties.

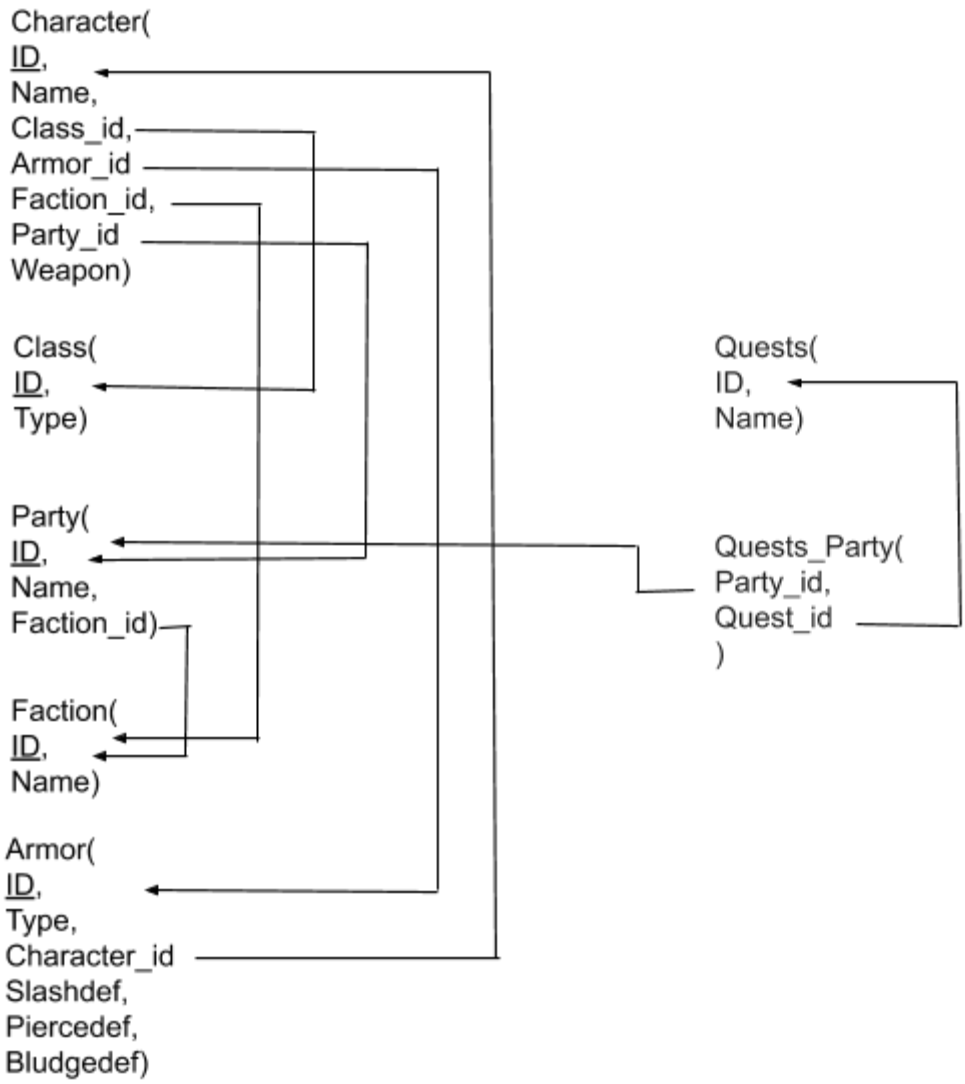
characters can be one class - *one to many*, each character must have a class and can only be one class, and many characters can be one class.

Parties can have zero or more quests - *Many to many relationship,* a party can be given multiple quests to complete. Quests can be assigned to zero or more parties at any given time.

ERD


class
PK
id
type
party
PK
id
name
faction_id
faction
PK
id
name
characters
PK
id
fname
lname
armor_id
weapon
class_id
faction_id
party_id
quest
PK
id
name
armor
PK
id
type
slashing_def
piercing_def
bludgeoning_def

SCHEMA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Name,
Class_id,
Armor_id
Faction_id,
Party_id
Weapon)
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ID,
Type)
Party(
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Name,
Faction_id)
Faction(
ID,
Name)
Armor(
ID,
Type,
Character_id
Slashdef,
Piercedef,
Bludgedef)
Quests(
ID,
Name)
Quests_Party(
Party_id,
Quest_id
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