Kyle Bell
Jeremy Tsang

Project Step 5 Draft Version: Design HTML Interface

(A) Project Outline and Database Outline

Project Title: Empire Employees
Team: Rakghoul Serum
URL: http://flip3.engr.oregonstate.edu:6600/

Empire Employees is a database driven web application designed to manage stormtroopers, garrisons, ships, and droids under the Galactic Empire. It does this by providing a listing of each of the above entities as well as allowing users to add/modify/delete entities. For modifying these entities, we allow troopers to be moved around to various garrisons (or no garrisons at all if they are in transit). Their equipment, modeled by the Loadouts entity, can also be updated as well. We can move troopers/droids from ship to ship as well and in this case these relationships are modeled by a M:M relationship. Stormtroopers can also be deleted from the database if they have fulfilled their purpose and given their lives for the Empire.

The glorious Galactic Empire has 1.5 million planets under its control which includes 69 million different colonies and states. Without proper organization and resolve the galaxy will turn to chaos, or worse, become under the control of rebel scum. Empire Employees is capable of managing all 1 billion Stormtroopers, 25,000 Star Destroyers and other smaller vehicles, as well as droids that the Empire employs. To deploy a specific number of troops to ensure effective defense of each garrison spread such large cosmic distances it is critical to always have the correct number of supplies and personnel available. Empire Employees does this by allowing the users current troop, ship, and droid counts for each garrison and providing sufficient warnings when said counts drop below an acceptable level needed for adequate defense. For some ships, such as tie fighters, there may only be 1 trooper on board whereas for larger ships, such as star destroyers, may have as much as 9,700 Stormtroopers. With our simple to use online interface, we will meet all your Stormtrooper relocation management needs!

Entity Tables:

troopers - an individual soldier of the Galactic Empire that upholds peace and prosperity for all. They have a garrison and load out assignments that are related to the garrisons and loadouts entities respectively.

- id: int, auto_increment, unique, not NULL, PK
- garrison: int, FK
- loadout: int, not NULL, FK
- Relationship: a 1:M relationship between garrisons and troopers, a M:M relationship between troopers and ships (implemented with the ships_troopers composite entity), and a 1:M relationship between loadouts and troopers.

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ships - The Galactic Empire has ships in order to transport troopers and droids throughout the galax. Each ship has a ship type and is related to troopers and droids.

- id: int, auto_increment, unique, not NULL, PK
- type: varchar(255), not NULL
- Relationship: a M:M relationship between ships and troopers, a M:M relationship between ships and droids.

droids - Robust, top of the line droids help repair ships for our glorious fleet. They have a droid type, and have a relationship with ships.

- id: int, auto_increment, unique, not NULL, PK
- type: varchar(255), not NULL
- Relationship: a M:M relationship between droids and ships implemented with the ships_droids composite entity.

loadouts - Each unique weapon loadout contains a proprietary blaster as well as an option for a detonator in order for each trooper to get the job done right their own way! A loadout has a relationship with a trooper.

- id: int, auto_increment, unique, not NULL, PK
- blaster: varchar(255), not NULL
- detonator: bool, not NULL
- Relationship: a 1:M relationship between loadouts and trooper

garrisons - Our Empire keeps the galaxy safe with garrisons throughout the galaxy. Each of them has a name and a maximum capacity

- id: int, auto_increment, unique, not NULL, PK
- Name: varchar(255), not NULL UNIQUE
- capacity: int, not NULL
- Relationship: a 1:M relationship is implemented between troops and garrisons as a FK inside of troops.

Relationship Tables:

ships_troopers - Relationship between ships and troopers.

- ship: int, not NULL, PK, FK
- trooper: int, not NULL, PK, FK
- Relationship: facilitates M:M relationship between ships and troopers.

ships_droids - Relationship between ships and droids.

- ship: int, not NULL, PK, FK
- droid: int, not NULL, PK, FK
- Relationship: facilitates M:M relationship between ships and droids.

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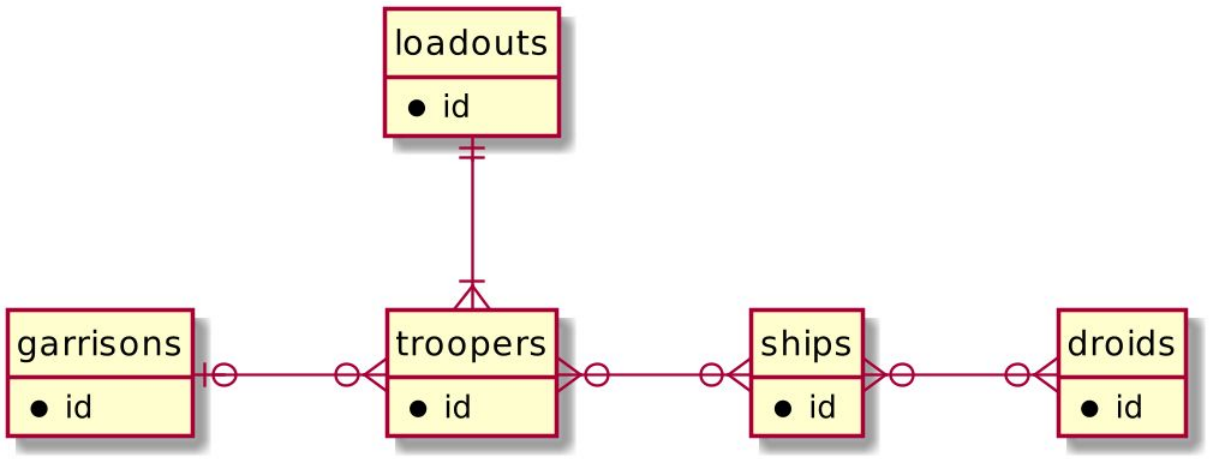
Team Assignments:

We will be implementing all of the entities described above:

- troopers
- loadouts
- garrisons
- ships
- droids
- ships_droids
- ships_troopers

- Kyle will be responsible for the code and webpages for the following entities:
  - ships_droids (M:M relationship)
  - droids
  - garrisons
  - ships
- Jeremy will be responsible for code and webpages for the following entities:
  - ships_troopers (M:M relationship)
  - troopers
  - loadouts

(C) Entity-Relationship Diagram



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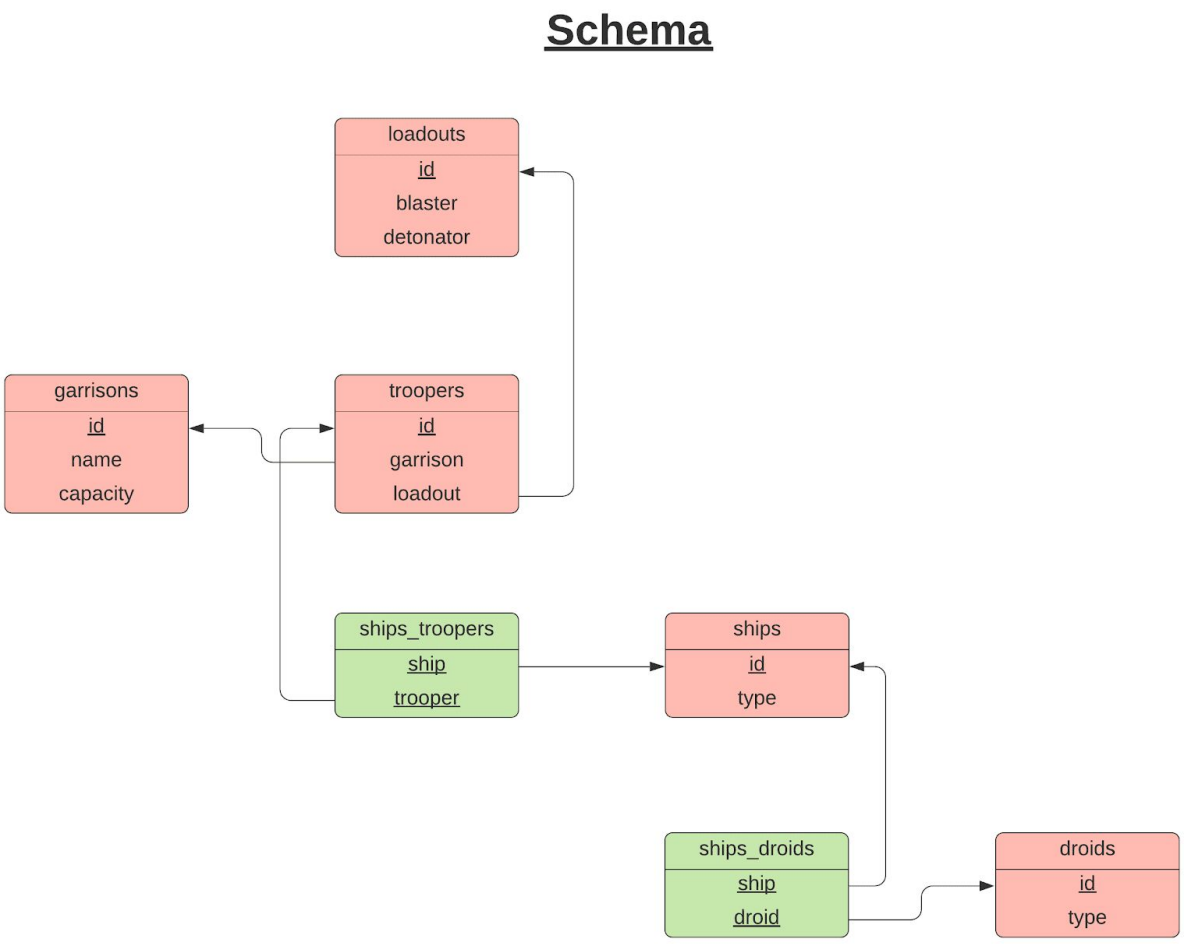
(D) Schema



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(B) Fixes based on Feedback from Previous Steps

Changes we've decided to make on our own

- Make the attribute garrisons.name unique. Update both the DDQ and the database outline.
- Updated capitalization on Trooper page
- Changed "Filter by trooper id" to "Filter by Ship ID" to match outline/home page details
- Modified the DDQs and DMQs to agree with our web application.
- Add dropdowns on the front end for certain fields that have predefined choices.

Feedback by the TAs

- dropdown menu for UPDATE to select which ID to update
    - We did add a (missing) field for the trooper ID on the update form. However we chose not to implement a dropdown because:
        i. It seemed redundant to provide dropdown options when the table of said options is directly adjacent to the form
        ii. In our project description we detailed that we are expecting on the order of 1 billion stormtroopers across millions of garrisons and a dropdown to navigate that many rows would be cumbersome to navigate. It would be more appropriate to implement some kind of auto complete behavior, but that seems a bit out of scope for this class.
- intro needs more description of the project
    - added more specifics as to how our projects work
- more numerical data should be added to description
    - added more numerical detail

Feedback by the peer reviewers From Step 4 Draft and actions taken

- More joins instead of SELECT * statements to make data more human readable (names instead of ID numbers) [Daniel Allen]
    - Included more JOINs on the trooper table to make it more user friendly, explicitly listing attributes from the other tables instead only listing the primary keys which may be confusing for a new user.
- make more clear that troopers reference other tables [Daniel Allen]
    - Added footnote to specific columns in the tables on the troopers page for columns that are attributes from tables that troopers references.
- "While I saw the relationship tables and their DDM queries, I didn't see them implemented on the site as their own page or used as part of a join on the troopers or droids pages." [Daniel Allen]

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    - As far as I can tell we do have all of the relationship tables, maybe he didn't see the 2 M:M tables on the manifests page. We changed the margin title from COMPOSITES to M:M TABLES to clear future confusion.
- Simple queries, not many joins. May want to connect more tables together as you build out [Dylan Albertazzi]
    - Connected loadout blasters/detonators with the trooper table and changed garrison ID in trooper table to garrison name to have better readable information there.
- The insert and select options are missing in gameday. [Dingguo Tang]
    - Might have replied to the wrong post, as our project does not have a `gameday` attribute/table anywhere (nor should it). Replied back to Dingguo Tang (@131_f2) to inquire if he was referring to our post or not.

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Daniel Allen 5 days ago What a fun idea!
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 they are. Dump and SELECT statements executed succesfully.
- Are there queries providing all functionalities as required by the CS340 Project Guide ? What query is missing ? What needs to be fixed?
  - I saw them for all of the tables.
- Do the queries cover the relationships as required by the CS340 Project Guide
  - There are SELECT * statements for everything, but not a lot of joins happening to make the data more human usable (ie - troopers ship and loadout names displayed instead of just numbers)

DDQ:

- 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. Everything ran correctly.
- Are the data types appropriate considering the description of the attribute in the database outline?
  - Yes. I also realized more clearly after looking at the SQL that the troopers reference other tables for the text content that describes them, which makes a lot of sense.
- Are the foreign keys correctly defined when compared to the Schema?
  - Yes. The formatting was consistent for each table, which made it easy to verify and should make writing the queries easier. I like to use the same name for the FK as the PK it refers to so that when I write a join, I can write it with the USING (column) instead of ON (table.fk = table.pk). The latter is very specific, but seeing the same name for the column is easier for me to grokk quickly.
- Are relationship tables present when compared to the ERD/Schema?
  - While I saw the relationship tables and their DDM queries, I didn't see them implemented on the site as their own page or used as part of a join on the troopers or droids pages.

helpful! | 0

Kyle Bell
Jeremy Tsang

Neha Sharma 3 days ago

- 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
    - Yes, the queries are syntactically correct and can be executed correctly.
  - Are there queries providing all functionalities as required by the CS340 Project Guide ? What query is missing ? What needs to be fixed?
    - Yes, all the queries have the functionalities required from the CS340 project guide. I did not see any missing queries.
  - Do the queries cover the relationships as required by the CS340 Project Guide?
    - Yes, majority of them do have all the queries to cover the relationships.
- 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, the SQL files were correct.
  - Are the data types appropriate considering the description of the attribute in the database outline?
    - Yes, the data types are considered with the description of the attributes in the database outline.
  - Are the foreign keys correctly defined when compared to the Schema?
    - Yes, the foreign keys are correctly defined with it is being compared to the Schema.
  - Are relationship tables present when compared to the ERD/Schema?
    - Yes, I did see majority of the tables presented in the the relationship tables to the ERD/Schema.

helpful! | 0

Nora Quick 3 days ago

- Are the queries syntactically correct? Disregard and the part where input will be substituted as shown in the sample_data_manipulation_queries.sql
  - Yes, they are syntactically correct.
- Are there queries providing all functionalities as required by the CS340 Project Guide? What query is missing? What needs to be fixed?
  - It did appear that all queries have functionalities required. Nothing appeared to be missing,
- Do the queries cover the relationships as required by the CS340 Project Guide?
  - Yes, the queries cover the relationships required.

- 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 SQL files are syntactically correct.
- Are the data types appropriate considering the description of the attribute in the database outline?
  - Yes, the data types look appropriate.
- Are the foreign keys correctly defined when compared to the Schema?
  - Yes, those look to be correctly defined.
- Are relationship tables present when compared to the ERD/Schema?
  - Yes, it looks like the tables were present.

helpful! | 0

Kyle Bell
Jeremy Tsang

Dylan Albertazzi 3 days ago 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, all queries are syntactically correct.
- Are there queries providing all functionalities as required by the CS340 Project Guide ? What query is missing ? What needs to be fixed?
  - Everything is there, good work.
- Do the queries cover the relationships as required by the CS340 Project Guide
  - All queries are required. They were all simple, not many joins. You may want to connect more tables together as you build it out.

DDQ:

- 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!)
  - Everything worked for me.
- Are the data types appropriate considering the description of the attribute in the database outline?
  - Yes, data types are appropriate.
- Are the foreign keys correctly defined when compared to the Schema?
  - Yes all foreign keys are correctly defined.
- Are relationship tables present when compared to the ERD/Schema?
  - Yes the tables are present.

helpful! | 0

Dingguo Tang 20 hours ago 1. Are the queries syntactically correct? Disregard the part where input will be substituted as shown in the sample_data_manipulation_queries.sql
Yes

2. Are there queries providing all functionalities as required by the CS340 Project Guide ? What query is missing ? What needs to be fixed?
The inset and select options are missing in gameday.
3. Do the queries cover the relationships as required by the CS340 Project Guide?
Yes

Data Definition Queries Peer Review:

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!)
The file seems to be simplified. You can add some table attributes.

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?
Some relationships are not very detailed and may require more refinement.

helpful! | 0

Kyle Bell
Jeremy Tsang

Actions taken from feedback by the peer reviewers From Step 3 Draft

- We did not images, but we will add images afterwards [Brian Peck]
- trooper id to garrison id on Garrison page [Caroline Borden]
- garrison column names [Caroline Borden]
- loadouts column names [Caroline Borden]
- Clarify 2nd loadout form as “update” instead of “add” [Brian Peck, Caroline Borden]
- suggestion: remove a trooper all together (if they die) [Caroline Borden]
- Make the tables larger to fill up whitespace [Anjelica Benitez]

Feedback by the peer reviewers From Step 3 Draft

Kyle Bell
Jeremy Tsang

Kyle Bell 6 days ago
Team (64): Rakghoul Serum
Project Title: Empire Employees
Team Members: Jeremy Tsang, Kyle Bell

URL: **http://web.engr.oregonstate.edu/~tsangj/340/osu-cs-340-project/empire-employees/**

group64_step3_draft.zip

helpful! | 0

Brian Peck 6 days ago

- Does the UI utilize a SELECT for every table in the schema? In other words, data from each table in the schema should be displayed on the UI. Note: it is generally not acceptable for just a single query to join all tables and displays them.
  - Yes it does! There are individual pages for each table and data is displayed from a select statement on each one of them. Looks good!
- Does at least one SELECT utilize a search/filter with a dynamically populated list of properties?
  - Yep! The troopers page offers this functionality.
- Does the UI implement an INSERT for every table in the schema? In other words, there should be UI input fields that correspond to each table and attribute in that table.
  - They do! Each individual page has the option to add rows to the table and the data being inserted matches the column headers.
- Does each INSERT also add the corresponding FK attributes, including at least one M:M relationship? In other words if there is a M:M relationship between Orders and Products, INSERTing a new Order (e.g. orderID, customerID, date, total), should also INSERT row(s) in the intersection table, e.g. OrderDetails (orderID, productID, qty, price and line_total).
  - Many to many relationships exist between ships and troopers and ships and droids. There is a Manifests page that would allow a user to add a ship and it's occupants to it. This satisfies the request to add rows to the intersection table.
- Is there at least one DELETE and does at least one DELETE remove things from a M:M relationship? In other words, if an order is deleted from the Orders table, it should also delete the corresponding rows from the OrderDetails table, BUT it should not delete any Products or Customers.
  - The DELETE option exists in the Manifests page as well. It looks like you are able to remove the relationship between a ship and it's troop. I would assume the way this will be programmed will not remove the values from the ships, troopers, or droids tables. Looks good!
- Is there at least one UPDATE for any one entity? In other words, in the case of Products, can productName, listPrice, qtyOnHand, e.g. be updated for a single ProductID record?
  - The home page specifies the UPDATE functionality will be included on the Loadouts page, but I don't actually see it when I go to the page. I see two options to ADD. I think the second box is probably meant to say UPDATE since it includes an id, but that is something to look at.
- Is at least one relationship NULLable? In other words, there should be at least one optional relationship, e.g. having an Employee might be optional for any Order. Thus it should be feasible to edit an Order and change the value of Employee to be empty.
  - Yep! This requirement is satisfied on the Troopers page where you can update the troopers garrison to be NULL.
- Do you have any other suggestions for the team to help with their HTML UI?
  - Looks like you're off to a great start! I think the idea of breaking it up into an individual page for each table is a smart idea and made it easy for me to understand what your project was trying to achieve
  - Adding some images could help enhance some of the pages. I do like the color scheme though. Well done!

helpful! | 0

Kyle Bell
Jeremy Tsang

Caroline Borden 4 days ago

- *Does the UI utilize a SELECT for every table in the schema?*In other words, data from each table in the schema should be displayed on the UI. Note: it is generally not acceptable for just a single query to join all tables and displays them.

Yes, this information is explained on the home page and implemented on the additional pages by displaying a table. It is very clearly and effectively demonstrated that there can/will be a SELECT query for each table.

- *Does at least one SELECT utilize a search/filter with a dynamically populated list of properties?*

Yes, the Troopers page utilizes a search/filter based on the current garrison assignment/loadout and said Trooper can be removed from the garrison or added to a new garrison as needed.

- *Does the UI implement an INSERT for every table in the schema?*In other words, there should be UI input fields that correspond to each table and attribute in that table.

Yes, this information is explained on the home page like with the SELECT queries and implemented on the additional pages by displaying a table that can be updated as items are added. The Garrisons page appears to be incorrect with the current options, though. I suspect that it's still being worked on, but I would expect the add options to be garrison id, name, and capacity instead of trooper id and garrison – similar to how the ships and droids pages are implemented.

- *Does each INSERT also add the corresponding FK attributes, including at least one M:M relationship?*In other words if there is a M:M relationship between Orders and Products, INSERTing a new Order (e.g. orderID, customerID, date, total), should also INSERT row(s) in the intersection table, e.g. OrderDetails (orderID, productID, qty, price and line_total).

Yes, where necessary there appears to be a reference to the FK attributes that are needed.

- *Is there at least one DELETE and does at least one DELETE remove things from a M:M relationship?*In other words, if an order is deleted from the Orders table, it should also delete the corresponding rows from the OrderDetails table, BUT it should not delete any Products or Customers.

Yes, there will be multiple DELETE options. Like stated before, a trooper can be removed from a garrison or moved to a garrison on the Troopers page.

- *Is there at least one UPDATE for any one entity?*In other words, in the case of Products, can productName, listPrice, qtyOnHand, e.g. be updated for a single ProductID record?

Yes, again the Troopers page is an excellent example of all of these queries and a Trooper can be updated to a new garrison on this page.

- *Is at least one relationship NULLable?*In other words, there should be at least one optional relationship, e.g. having an Employee might be optional for any Order. Thus it should be feasible to edit an Order and change the value of Employee to be empty.

Yes, the Trooper can be removed from a garrison and the table allows this to be set to NULL.

- *Do you have any other suggestions for the team to help with their HTML UI?*

I would suggest maybe having an option to delete a Trooper altogether – should they dutifully give their lives in service to the Empire. I would also update the garrisons form/table as mentioned in the INSERT comment to reflect the garrison's attributes. The loadouts insertion seems confusing to me as well. There is an option to add blaster/detonator and a separate option to add id/blaster/detonator. Do these relate to different additions or is it an accidental duplicate? Also the table on the page references name/capacity. I would suggest having these reference blaster and detonator to be clear what is being displayed.

Overall, I think you've done a commendable job in your efforts to further the Empire's inevitable success to bring order to the galaxy.

(Seriously, I love the Star Wars theme and I'm excited to see the final result!)

helpful! | 0

Kyle Bell
Jeremy Tsang

Anjelica Benitez 4 days ago

- ***Does the UI utilize a SELECT for every table in the schema?*** **In other words, data from each table in the schema should be displayed on the UI. Note: it is generally not acceptable for just a single query to join all tables and displays them.**
  - Yes, each table utilizes a SELECT for every table in the schema as outlined in the home page.
- ***Does at least one SELECT utilize a search/filter with a dynamically populated list of properties?***
  - Yes, the Troopers page allows a user to filter by Trooper ID, Garrison, or Ship.
- ***Does the UI implement an INSERT for every table in the schema?*** **In other words, there should be UI input fields that correspond to each table and attribute in that table.**
  - Yes, INSERT is implemented in every table using the "Add" function.
- ***Does each INSERT also add the corresponding FK attributes, including at least one M:M relationship?*** **In other words if there is a M:M relationship between Orders and Products, INSERTing a new Order (e.g. orderID, customerID, date, total), should also INSERT row(s) in the intersection table, e.g. OrderDetails (orderID, productID, qty, price and line_total).**
  - Yes, there are M:M relationships between Ships and Droids and Ships and Troopers. INSERTing a new row in either of these entities would also insert a new row in the corresponding relationship table.
- ***Is there at least one DELETE and does at least one DELETE remove things from a M:M relationship?*** **In other words, if an order is deleted from the Orders table, it should also delete the corresponding rows from the OrderDetails table, BUT it should not delete any Products or Customers.**
  - Yes, DELETE is implemented in the Troopers page. Also, the home page indicates that you can DELETE things from M:M relationships in the Manifests page.
- ***Is there at least one UPDATE for any one entity?*** **In other words, in the case of Products, can productName, listPrice, qtyOnHand, e.g. be updated for a single ProductID record**
  - Yes, according to the home page, the Loadouts table will offer an UPDATE funtionality.
- ***Is at least one relationship NULLable?*** **In other words, there should be at least one optional relationship, e.g. having an Employee might be optional for any Order. Thus it should be feasible to edit an Order and change the value of Employee to be empty.**
  - Yes, the Troopers table allows a user to input NULL in the garrison field to remove a 1:M relationship.
- ***Do you have any other suggestions for the team to help with their HTML UI?***
  - What an awesome website! I love the layout of the website and how detailed you were with the home page. The only minor suggestion I can think of would be to maybe increase the size of your tables as there is a lot of white space. Overall, though, great job!

helpful! | 0

Kyle Bell
Jeremy Tsang

Zan Zhang 2 days ago

- *Does the UI utilize a SELECT for every table in the schema?* In other words, data from each table in the schema should be displayed on the UI. Note: it is generally not acceptable for just a single query to join all tables and displays them.

Yes it provide the place where set in each entity on homepage with the SELECT to display entire table message.

- *Does at least one SELECT utilize a search/filter with a dynamically populated list of properties?*

Yes in Troopers there has filters on garrison and trooper id.

- *Does the UI implement an INSERT for every table in the schema?* In other words, there should be UI input fields that correspond to each table and attribute in that table.

Yes, in each individual page has the button to add the data in to the table.

- *Does each INSERT also add the corresponding FK attributes, including at least one M:M relationship?* In other words if there is a M:M relationship between Orders and Products, INSERTing a new Order (e.g. orderID, customerID, date, total), should also INSERT row(s) in the intersection table, e.g. OrderDetails (orderID, productID, qty, price and line_total).

Yes, the web has a page under COMPOSITES part which shows the M:M relationships between Ships and Droids and Ships and Troopers, and now it has the add on it. It seems correct for now.

- *Is there at least one DELETE and does at least one DELETE remove things from a M:M relationship?* In other words, if an order is deleted from the Orders table, it should also delete the corresponding rows from the OrderDetails table, BUT it should not delete any Products or Customers.

Yes they have delete message on the Manifests page to delete the M:M relationship. So it seems like they are good now.

- *Is there at least one UPDATE for any one entity?* In other words, in the case of Products, can productName, listPrice, qtyOnHand, e.g. be updated for a single ProductID record?

Yes base on the home page and each entities page. They have at least one UPDATE for each part.

- *Is at least one relationship NULLable?* In other words, there should be at least one optional relationship, e.g. having an Employee might be optional for any Order. Thus it should be feasible to edit an Order and change the value of Employee to be empty.

Yes, the table allows this to be set to NULL when the Trooper is removed from a garrison

- *Do you have any other suggestions for the team to help with their HTML UI?*

The website setup very clearly and I really like the homepage which you list each function in and this will give a very clear instructions for the people who use the system you write. And I think you are the fewer team do this on the homepage. I recommend remain this until the end.

helpful! | 0

Kyle Bell
Jeremy Tsang

Actions taken based on feedback from submitting Step 2 Final Draft

No feedback was received from grades after submitting Step 2 Final Draft

Actions based on the peer feedback for step 2 draft review

- Per Rachel Orrell's suggestion, updated the schema reviewer to simply use arrows instead of crow's feet notation. This makes it a bit more streamlined and gets rid of extra information that is included in the ERD anyways.
- Per Rachel Orrell's suggestion, specified that the loadout is a weapon loadout in the outline to be clear that the loadout is weaponry
- Per Rachel Orrell's suggestion, fixed the trooper loadout relationship to consistently be 1:M. This is in accordance with the fact that a loadout can be shared among troopers.
- Per Rachel Orrell's suggestion, reworded/cut down the last outline sentence for better readability
- Per Rachel Orrell's suggestion, removed "_id" from ships_id, trooper_id, and droid_id for consistency and readability.

Actions not taken based on the peer feedback

- We did not implement separate entities for blasters and detonators as suggested by Jordan Pemberton. Those are implemented by our sister company "Empire Weapons."
- We did not include more attributes for each entity (suggested by Dylan Albertazzi) at this time to ensure we have a base database that functions well. As the project progresses we will consider adding more attributes.

Feedback by the peer reviewers For Step 2 Draft

Jordan Pemberton

Does the overview describe what problem is to be solved by a website with DB back end?

Yes.

Does the overview list specific facts?

Yes, stormtrooper numbers, different numbers of troopers /ship type, etc.

Kyle Bell
Jeremy Tsang

Are at least four entities described and does each one represent a single idea to be stored as a list?

Yes. Could maybe include blasters /detonator as separate entities from loadouts.

Does the outline of entity details describe the purpose of each, list attribute datatypes and constraints and describe relationships between entities? Does the outline clearly indicate which entities (tables) will be implemented and which team member is primarily assigned to the associated page(s)?

Yes.

Are 1:M relationships correctly formulated? Is there at least one M:M relationship?

Yes.

Is there consistency in a) naming between overview and entity/attributes b) entities plural, attributes singular c) use of capitalization for naming?

Yes, very consistent.

Rachel Orrell

Does the overview describe what problem is to be solved by a website with DB back end?

Yes, and the idea is very fun! Love it!

Does the overview list specific facts?

Yes, the number of Stormtroopers managed and the number of troopers that can be supported by certain ships.

Are at least four entities described and does each one represent a single idea to be stored as a list?

There are five entities, and I think so, though I don't really understand what a loadout is.

Does the outline of entity details describe the purpose of each, list attribute datatypes and constraints and describe relationships between entities? Does the outline clearly indicate which entities (tables) will be implemented and which team member is primarily assigned to the associated page(s)?

The purpose of a loadout is not really clear. It says it helps troopers get the job done right - what job? Is it a weapon? I'm just not sure. Also, the description makes it sound like 1:1 ("*a*

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loadout has a relationship with *a* trooper") while the relationship is listed as M:M. Looks like this was recently changed to 1:M, so neither one really fits. Finally, at least how it is now, shouldn't loadout be specified as an FK?

Otherwise looks good!

It is clear who is responsible for what.

Are 1:M relationships correctly formulated? Is there at least one M:M relationship?

The implementation of the 1:M for loadouts and troopers makes it so that one loadout can belong to many troopers. Since I don't really understand what a loadout is, I could be off base on this, but if it is a kind of weapon, wouldn't it be more logical for a trooper to have multiple loadouts (the trooper id in the loadout table instead of the loadout id in the trooper table)?

There are 2 M:M relationships, and they are correctly formulated.

Is there consistency in a) naming between overview and entity/attributes b) entities plural, attributes singular c) use of capitalization for naming?

Almost. The foreign keys are referred to as something_id in the relationship tables, but foreign keys in entity tables are just referred to by the singular of the name of the reference table. Having all foreign keys end in "_id" would make it more obvious when an attribute is a foreign key and would improve consistency.

Notes: you don't actually need the crow's feet notation in the schema, and trying to put it there is really confusing when it comes to relationship tables. For example, there will likely be more than just one trooper in ships_troopers, but the crow's feet make it look like exactly one.

Dylan Albertazzi

Does the overview describe what problem is to be solved by a website with DB back end?
Great, you stated the problem, how a DB will help, and some specific details. I would reword the last sentence of your outline paragraph, or split it into two sentences.

Does the overview list specific facts?

Good job listing the specific number of Stormtroopers.

Are at least four entities described and does each one represent a single idea to be stored a s a list?

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Yes, five entities are described. I would encourage you to think about more data on each entity that would be useful for your users to have. Such as date the ship was bought or an hourly wage of a trooper.

Does the outline of entity details describe the purpose of each, list attribute datatypes and constraints and describe relationships between entities? Does the outline clearly indicate which entities (tables) will be implemented and which team member is primarily assigned to the associated page(s)?

Yes, you did a good job being brief but descriptive. I appreciate that. Your descriptions sound a bit like a sales pitch, which is fine, but you're selling the software, not the entities.

Are 1:M relationships correctly formulated? Is there at least one M:M relationship?

Yes, all relationships are formulated correctly. Good job.

Is there consistency in a) naming between overview and entity/attributes b) entities plural, attributes singular c) use of capitalization for naming?

All naming is consistent with. Good job.

Patrick Dougan

1. The overview describes the challenges of managing a galactic army. It also explains how the DB will assist with managing troop counts and checking what ships troops are stationed on.

2. The overview lists a couple of facts. One is that total troop count is over 1 billion. Two is star destroyers hold between 1 and 9,700 troops.

3. Yes, they have five entities. Troopers, ships, droids, load outs, and garrisons. Each entity can be described by a list.

4. All entities are described with datatypes and constraints. Relationships are described as well.

5. There are two M:M relationships. The 1:M are correctly formulated

6. Yes, all entities are plural. The "Name" attribute is capitalized in the entity tables list but is OK in the schema.

Upgrades to the Draft version

No upgrades made on our own after submitting the draft. Upgrades based on the peer comments were sufficient and our database was already in 3NF.

Kyle Bell
Jeremy Tsang

Fixes based on Feedback from Step 1

We did not receive any feedback but we made the following changes:

- Switch naming conventions from camel case to underscores.
- Rename the composite entities shipTrooperManifest and shipDroidManifest to ships_troopers and ships_droids respectively.
- Change loadOuts to loadouts since loadout is a single word.
- Change the relationship between loadouts and troopers from M:M to M:1.
- In the Database Outline for ship_troopers indicate that together ship and trooper form the primary key for composite entity ship_troopers.
- In the Database outline for ship_droids indicate that together ship and droid form the primary key for composite entity ship_droids.