Taylor Eldreth, John Quilty

Star Wars Database Project

Live URL of Project: http://flip1.engr.oregonstate.edu:9945/

Review from Step 6:

"Hi Taylor, great progress from last week! It's nice to see another page up and running with smooth updates & deletes - I found no issues with either of these functions on the Character or Planet page. I only noticed a few things on the Planet page and I think they are very simple fixes if you choose to make any of these changes.

Firstly, for Population I noticed that when a really large number is entered the table automatically changes the number to 2147483647 -- regardless of what's entered. I imagine this has something to do with the size definition in the database set up (likely this is max size for that data type) but I wonder if it would be more straight forward to put a "highest value" limitation in the table field itself? This would help with the fact that negative numbers are allowed to pass through as well. What we did to achieve this in parts of our table is add a min & max in the table field sections that we wanted to have constraints on (i.e. min="0" max="1000000000") -- you can add this after the "id=" or "class=" portion of the table field.

The other thing I noticed is that the Environment section is sort of anything goes. I have a few test ones that I added that are numbers and special characters for environment. I think this could be avoided by changing that section from an input/text field to a drop down section that includes the environments you'd like for people to be able to pick from. Having the drop down with limited options might make the selection of this more straight forward for people anyhow as 'environment' could potentially be subjective and you might get things that were all over the place without a bit of guidance here.

There wasn't much to say as things work well and I think you're on great track to finish up the rest of the pages. I hope this was helpful, good luck!" -**Morgan Eck**

"Have to double check what page we're on based on the available table.

Create character was broken on first load. The faction drop down was empty. For some reason after an attempted Filter by:, it all loaded up properly and was able to create a new character. But then after another attempted Filter by: it reset back to the first non-working state.

Filters over all do not seem to be up yet on the character page.

Entry of a new vehicle did not seem to do anything. The table is currently empty.

Update and delete function on the Planets page seem to be working fine. Create did insert new data but there are no limits on input so we're able to put a negative population and a non-labeled Environment.

Factions was a repeat of the Vehicle page.

Planets/Factions was an empty table. The new entry did not seem to be working.

*The CSS changes helped quite a bit. You got this!" -***Christopher Elliot**

"Love the Star Wars theme!

The operations seem to work on all pages except I was unable to get the planet/factions page to display any sort of data.

Great work on the Characters page. All operations work and it's easy to make changes.

Nice work so far." - **Kyle Reilly**

"Looks good, John. One thing I couldn't get to work was the filter on the characters page? Everything else worked for me." - **Todd Radin**

Changes from Step 6:

Made the font in the body white for readability

Implemented the other pages

Review from Step 5:

"This is my first time checking out your project, so excuse me if I misunderstand some things.

Here's a list of things I noticed:

I get the theme of the site is star wars, but that background and bright yellow text is something else (Though I'm sure this is a common complaint). The element backgrounds definitely help, but their interior padding could be a touch more. This would help your eyes differentiate text and the BG.

Getting some sort of response when giving bad data would help a lot. If anything, put a "title" on each text input that specifies their parameters, or just a placeholder.

Good job verifying input on the server-side. Wasn't able to spoof data no matter how hard I tried.

The update/delete functions work like a charm. Really cool to see the update buttons change elements on the page instead of just redirecting to another route like a lot of other projects.

Big fan of the homepage describing every table. Helps someone unfamiliar with your project like me a quite a bit.

This is entirely my personal preference, but the floating navbar looks pretty awkward. Maybe it floating about is part of your theme?, but I'm not sure.

Is the new entry and filters sections supposed to be separate columns? At first glance, I thought they were just weirdly aligned cells, so maybe floating filters to the right to make the separation noticeable

should be a change. This would also make the filter buttons line up, which is always nice!

Your table caption elements having a border-radius looks kind of weird to me. Especially because the gap at normal zoom isn't visible (Only appears at 110% at 1920x1080).

The update/delete buttons having a different background color than other buttons is a strange inconsistency.

Overall, this is looking like a good start. This'll start feeling much more complete once you get read operations implemented for the other tabs at the minimum." **-Jackson Eggers**

"I've somehow missed this project until now but I like what you've done so far. I'm not going to speak to the design much because that isn't the point of this project, but I think the theme is very "to brand" and comes together nicely. Things are straightforward and obvious - I didn't have to guess where I'd find things, didn't have trouble understanding which button/function did what, nothing like that. I like that you kept things simple because it makes it easy to digest.

I was able to add, update, and delete a new character no problem. I did run into the issue of having the faction dropdown not work at first but because I had read your note I knew to reload the page and it showed up just fine. I think the dropdown is a great way to control constraints/limited options for an attribute as it takes the guesswork out of things.

I did notice that none of the filter systems seemed to work for me. I figured that the attribute that would be easiest to filter by would be the factions but when I filtered by Empire nothing in the existing table seemed to happen. I don't actually know what the expected behavior is for this so I could totally be missing something here.

No worries about the other pages not working yet - I know exactly where you're coming from and know they'll work as well because the existing page does and like you said it won't be any different. I'll be curious to see how the many-to-many table comes together. It looks like you already have the dropdowns in place so I think this will go very smoothly.

There isn't much else to say, I think you've done a great job and again I love that it's so straightforward and easy to use. Nice work!" **-Morgan Eck**

"Great work! I love the style and theme. Sometimes it is a little hard to read however, maybe there is a different font, or boldness, or something small that could be tweaked to maintain the star wars look but increase readability.

I did experience the bug where the drop down menus don't appear with options on the first few loads, which prevented adding a new character to the database. However after that was sorted out I was able to add a new character, as well as update the character I had made. As mentioned above by Morgan, I was also unable to filter the results of the character table with any of the filters.

I totally agree that implementing the operations successfully with one table is what is most important, and then applying the same technique to the other table later on will be nice and easy.

Great job! I'm excited to see the finished product with full functionality." -**Tristan Gundel**

I LOVE the look and feel of your website. It looks like the filter functionality isn't currently working (we're still working on ours as well). Maybe mine isn't working, but it also looks like the insert statements on most of the pages aren't working? - **Todd Radin**

"Your app is starting to take shape. I agree with Todd that the look is awesome, especially the Star Wars font that you're using! I also noticed that inserting new things isn't showing on the website. Once you get that working, I'm eager to see the Update stuff work too!" - Jed Piezas

Changes from Step 5:

Added the planet page functionality

Gave the text in the body a grey background for readability

Review from Step 4:

Hi Taylor,

"Great project! I am loving the Star Wars themed design and style of it all. I think everything in the outline, and SQL files looks great. I have just a couple suggestions about the website functionality.

1. The database sample data has 4 planets, and based on the character list there must be at least 3 different planets in the database, however when adding a character it only provides two options currently (Tatooine and Jakuu). In the final version this should definitely provide all the planets in the database as options.

2. There should be update and delete buttons for the planets, vehicles, and factions. I imagine these were simply left out because they aren't actually due for this step's draft yet.

Great job though! Looking forward to seeing a more final version of this towards the end of the class!"

-Tristan Gundel

"Good to see this coming together!

Although the text and background obviously pertain to the theme, my old dude eyes find it a little illegible.

The character table is working well. No troubles with the foreign keys so that is good! Created some characters and tossed some of the old boring characters without conflicts.

Inserts for the other tables are not up and running quite yet nor are the filters. But there's time for that!

Honestly tired of inventing criticism so good luck to you!" -Christopher Elliot

Changes from Step 4

Added automatic populating dropdowns for the character add form

Review from Step 3:

"Both SQL files did have some trouble.

The first attempted import was unfortunately a page of errors. For some reason, it read "/par" everywhere which all needed to be removed. Also, everything was wrapped in { } which was commented out. This allowed most of the file to import. The `planet_factions` needed this PRIMARY key(`pid`,`fid`) as it stopped loading there and did not load anything that followed. After these things were applied, the DDQ file did import correctly.*

The table names in the DMQ file are not what they are in the DDQ file for the Inserts. The DMQ follows the ERD and the DDQ follows the Schema in one part but the ERD in the other.

The Select queries from the DMQ file look for "name" but each table has a unique "name" field such as "vehicle_name."

The tables did match the Schema and seemed to work properly including the Cascade functions.

The HTML seems pretty basic and still in development. I was hoping a bit that it would help to explain the processes that will be going on but it is a little confusing. Each of the menu items leads to a form representing each of the database objects and states the associated table will be displayed there. The drop downs all have the pre-inserted values as options. I would assume this is to narrow down the returns in the table displayed. However, after the Submit button, there are a series of buttons that indicated the ability to create new characters, planets, etc. But how is this accomplished? Will there also be fields for user input? Will a user be able to insert any value they want into new objects? It is not particularly clear.

I am sure that there is a greater vision for the end product and I wish you luck!" -**Christopher Elliot**

"This looks good to me.

You'll catch this anyway, but it looks like the Character html page has a 'Set Origin' button when it should have a 'Set Vehicle' button instead.

Also, in the Data Definition file, setting 'character_role' to VARCHAR(9) seems fine if you know that no new factions, for example, will be introduced in the future. If this were a database for a client though, I

think you'd want to allow for longer strings than 9 characters to accommodate new factions in the future that might have longer names.**" - Dennis Ayres**

"*You shouldn't be inserting your primary key ID's in manually; they should populate automatically using auto-increment. It's also preferable to use queries to enter foreign keys instead of entering ID numbers manually. Basically, the idea is that you shouldn't have to keep track of ID numbers in most situations. Maybe for the initial data set (in the data definition file) it's okay, but that will be important to keep in mind for your data manipulation queries. Users aren't going to add things by ID numbers.*

Data manipulation queries are incomplete, but so far looks okay to me.

I agree about using varchar(255).

*Overall though, looks pretty good. I like the idea and the layout of the website.***" - Hannah Moon**

Changes from step 3:

- Updated the Schema to match the naming convention in the ERD exactly. Also changed the DDQ and DMQ to use the proper table and variable names

Review from Step 2:

Morgan Eck:

"I like the fact that your database has depth in the good vs evil theme, my only suggestion here is possibly making the purpose of the database a bit more clear - is it to store Star Wars information/details in a concise and organized way? Is it to compare the strengths and weaknesses of good vs evil? I'd love to know more about the intention behind it.

In the relationship section you mention that "Each vehicle must have a pilot to operate it, and it is assigned to them. This is a one-to-one relationship. This can be a null value if the vehicle exists but is unassigned." but then in the ER diagram you have a line that implies that each vehicle must have at least one pilot. This seems to contradict the above language so I would recommend changing one or the other.

Your schema is very straight forward and easy to follow, I can easily see where each table overlaps and the many-to-many table is broken out and apparent - great job here I had no trouble comprehending.

Final thoughts: I think all of the pieces are definitely there, and I can easily picture the database you're going to make. I would personally love to hear an intention behind it but that may not be necessary, just a thought. Only the one other inconsistency stuck out to me and I think it's an easy fix of changing one or the other - nice job!"

Christopher Elliot:

"This is a well written outline. Each aspect of the database is well laid out and easy to follow. The ERD is simple and clear and while the Schema is a mix of the two styles presented, the information is clear and the relationships are obvious.

The only minor technical question I have is concerning the name of the vehicles. Is this unique? Is it a type or a name more like Millennium Falcon?

As a database, the numbers and values are solid. Since the project is to create a database, there may be a bit of 'not my job' as to the reason for providing it that is warranted. But does that mean that the database is static? Once the database is created, will there be any reason for queries other than SELECT to simply fetch the data and display it or will there be any interaction with a user; faction movement to/from various planets or trade of vehicles between the Merchant types maybe?

Last: solid, simple, and clear database design!"

Changes from step 3:

- Changed the wording of the vehicle section to clarify that vehicles must have a pilot.

Project Outline:

        We will be making a Database based on the Star Wars Universe. Star Wars is a fictional universe that has had many different forms of content created for it including Movies, Comics, TV shows, and Video Games. The universe takes place in a time where futuristic technology allows the characters to travel through space to visit many many different planets and solar systems. Most of the content regarding Star Wars revolves around two main factions, the classic good(normally consisting of the Jedi and Free Spirited fighters), and the evil(normally the sith and the empire or controlling large controlling government). This complication and variety of characters and items in the universe will allow us to create an interesting and diverse database.

Database Outline:

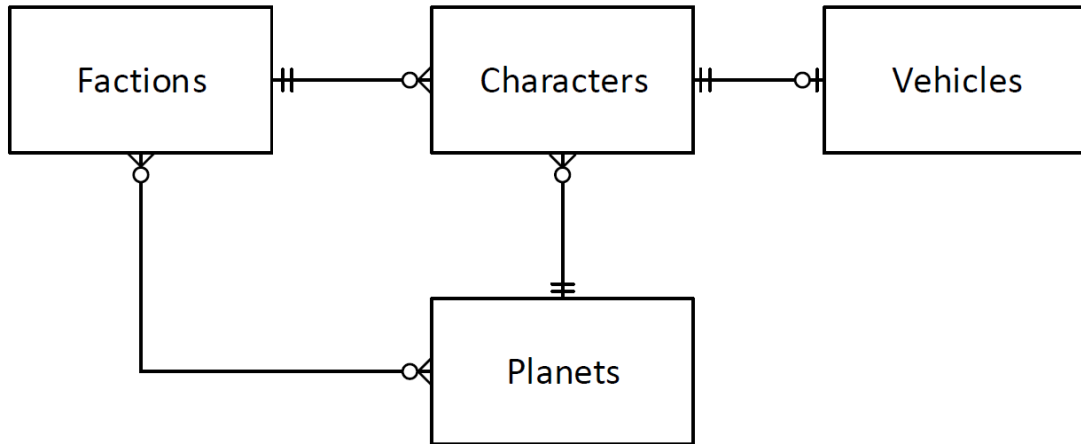The entities in the database will be as follows:

- Character – The characters will be the various people in the universe and will be the focus of all the relationships in the database
    - Id: auto generated id that gives the character a unique value in the database to reference to.
    - Name: The name of the character. String with a maximum of 100 characters, cannot be blank and there is no default.
    - Origin: This will contain the id number of the character's home planet. The home of the character will be one of the planets in the database. The planet must exist in the database and it cannot be blank.
    - Faction: The faction will contain the id of the faction that the character belongs to. The id must be a planet that is in the database, cannot be blank.
    - Role: This is the role of the character in the universe. Role is a maximum of 9 characters and must be one of the following: Jedi, Sith, Soldier, Mercenary, Merchant, Civilian. Default is civilian.
- Vehicle – The vehicle will be the different ships and transportation devices that the characters use in the universe
    - Id: auto generated id that gives the vehicle a unique value in the database to reference to.
    - Name: The name of the vehicle. String with a maximum of 100 characters, cannot be blank and there is no default.
    - Capacity: The capacity will be an int that describes how many characters the vehicle can hold. The number must be larger than 1 and the default is 1.
    - Lightspeed: lightspeed is an integer which describes if the vehicle is capable of going lightspeed. 1 for yes and 0 for no.
    - Pilot: Each vehicle needs a pilot, which will have an ID for the character.
- Planet – The Planet is the different names of the planets in the universe.
    - Id: auto generated id that gives the vehicle a unique value in the database to reference to.
    - Name: The name of the planet. Maximum of 100 characters, cannot be blank and there is no default.

- o Population: population will be an integer that represents the number of characters that inhabit the planet
  - o Environment: environment is a string with a maximum of 100 characters that describes the setting of the planet. Examples: Frozen, Toxic, Tropical, Volcanic.
- Factions – Factions will be the various groups that are formed in the universe.
  - o Id: auto generated id that gives the character a unique value in the database to reference to.
  - o Name: The name of the faction. String with a maximum of 100 characters, cannot be blank and there is no default.
  - o Goal: the goal is a string with a maximum of 100 characters that describes the main purpose behind the faction.
  - o Size: size will be an integer that represents the number of characters that have joined the faction

The relationships in the database will be as follows:

- Characters have a home planet – Each character is from one planet, but a planet can have multiple characters. So this is one-to-many.

- Characters have a faction – Each character has a faction, and each faction has multiple characters. This is many-to-one.

- Vehicles have a pilot – Each vehicle must have a pilot to operate it, and it is assigned to them. This is a one-to-one relationship.

- Planets have factions present – Each planet can have one or many factions operational on it. A faction can operate on one or many planets. This is a many-to-many relationship.

ER Diagram:

Schema:

vehicles(
vehicle_id,
vehicle_name,
vehicle_capacity,
vehicle_lightspeed,
vehicle_pilot)

characters(
character_id,
character_name,
character_faction,
character_origin,
character_role)

planets(
planet_id,
planet_name,
planet_population,
planet_environment)

factions(
faction_id,
faction_name,
faction_goal,
faction_size)

planet_factions(
pid,
fid)