

# CPSC 304 Project Cover Page

## Milestone 4

Group 26

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above.

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia.

### Description:

The domain of the project, Dungeons and Databases, lies within tabletop gaming and gaming utility. In this domain, the database primarily focuses on organizing and tracking specific details within and between DND campaigns. It will model aspects such as character definitions and campaign progression, and maintain the accessibility of this information for online gameplay.

### **Intended Functionality of the Database:**

The database within Dungeons and Databases will offer a range of functionalities to enhance the tabletop gaming experience. Users can store complete character definitions including their race, class, background, and items, enabling them to maintain countless detailed character profiles. It also supports the updating of existing character definitions to reflect progression in a campaign. For practical use, the project will allow users to generate basic character sheets using a query to the database, making it easier to reference character information during gameplay. Another unique feature is the ability to generate characters randomly or based on predefined parameters, facilitating the creation of new characters for future campaigns.

### **Repository Link:**

[https://github.students.cs.ubc.ca/CPSC304-2023W-T1/project\\_e7q7w\\_s0w2b\\_z7y0r](https://github.students.cs.ubc.ca/CPSC304-2023W-T1/project_e7q7w_s0w2b_z7y0r)

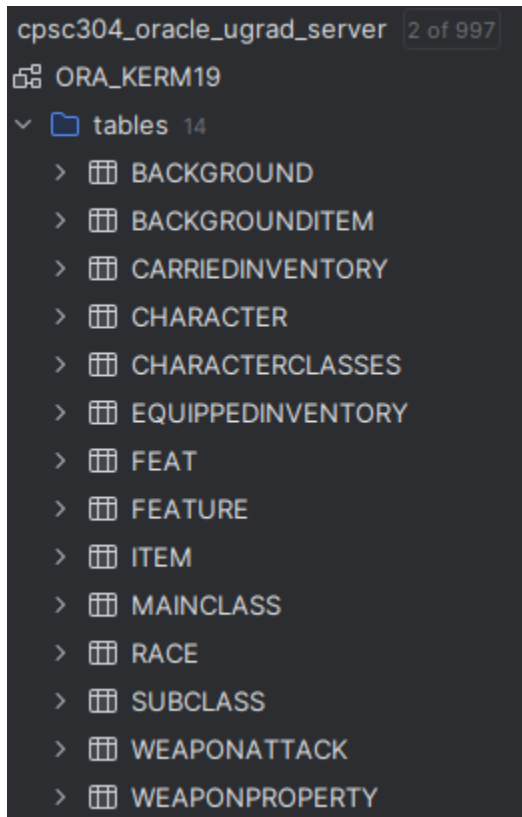
### **Final Functionality of the Database:**

You can add information that stems from Feat to Feature, then to Background, Race, and Class, all up to Character information with a database of collected items. The platform will not let you add foreign and connected tuples because as a security measure, only previously added tuples will be selectable. You can also view all previously added tuples for the tables listed above and use that information to delete the viewable entries when they are no longer in use. The platform separates each table into their respective panes on one adhesive homepage.

We were unable to implement the ability to update existing entries in a fluid motion but the inputs keep track of previously submitted entries so updating simply requires to delete and reinsert the data.

## Database Schema:

This is the result on datagrip after running the file dnd.sql that is present in the repository.



The relational schemas for these tables are as follows:

Background(**bgnd\_name**, background\_description)

BackgroundItem(**bgnd\_name**, **item\_id**)

CarriedInventory(**char\_name**, **item\_name**)

Character(**char\_name**, str, dex, con, int, wis, chr, **race\_name**, **bgnd\_name**)

CharacterClasses(**char\_name**, **class\_name**, subclass\_name)

EquippedInventory(**char\_name**, **item\_name**)

Feat(**feat\_name**, feat\_description, **feature\_name**)

Feature(**feature\_name**, feature\_description)

Item(**item\_id**, item\_name, item\_type, item\_weight, item\_cost)

MainClass(**class\_name**, hit\_die, class\_description)

Race(**race\_name**, speed, race\_description)

Subclass(**class\_name**, **subclass\_name**)

WeaponAttack(**item\_id**, **attack\_name**, save, check\_ability, dmg\_type, dmg\_bonus, dmg\_dice, attack\_bonus\_or\_dc)

WeaponProperty(**item\_id**, weapon\_property)

## Queries:

- INSERT:

All of the insert queries for each table php file is either on line 12 or 13 and is named `$sql{Table_Name}` for clarity

This is an example of inserting in the character table, and the other tables are exactly like it:

# Design your character

**Name:**

**Strength:**

**Dexterity:**

**Constitution:**

**Intelligence:**

**Wisdom:**

**Charisma:**

**Race:**  ▼

**Background:**  ▼

Here the character that will be created by entering this info and clicking 'Add Character' will be an Alien Criminal by the name of 'Test Name'

# List of Characters

Name	Test Name	Character1	Character2	Character3	Character4	Character5
Strength	5	12	14	8	10	16
Dexterity	5	14	10	16	12	8
Constitution	5	10	12	14	14	12
Intelligence	5	8	16	10	14	12
Wisdom	5	15	8	12	16	14
Charisma	5	16	10	14	10	10
Race	Alien	Human	Elf	Dwarf	Half-Orc	Gnome
Background	Criminal	Noble	Criminal	Sage	Folk Hero	Acolyte

After clicking 'Add Character' we can see the Alien Criminal among the example characters setup by the starting script.

- **DELETE:**

There are delete queries that take the user input of a primary key for the respective table and delete the matching tuple.

For Character.php as an example the query is on line 46.

Using the 'Test Name' character created in the above example we can input it like so:

## Delete Character

Character Name to delete:

And after pressing the 'Delete Character' button we can see the 'Test Name'

character is no longer listed in the added tuples:

## List of Characters

Name	Character1	Character2	Character3	Character4	Character5
Strength	12	14	8	10	16
Dexterity	14	10	16	12	8
Constitution	10	12	14	14	12
Intelligence	8	16	10	14	12
Wisdom	15	8	12	16	14
Charisma	16	10	14	10	10
Race	Human	Elf	Dwarf	Half-Orc	Gnome
Background	Noble	Criminal	Sage	Folk Hero	Acolyte

- **SELECT:**

The selection query is used by all of the table pages in the lowest else case of the php code. Using Character.php as an example, there is a selection query for the list of Characters on line 63.

There are more select queries per column in the table that depends on another table. For Character that is the race selection on line 70, and the background select on line 76.

They are observed in the dropdown menu here:

**Race:**

**Backg**

**Add C**

**ckground**

**Human**