

CPSC 304 Project Cover Page

Milestone #: 3

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Group Number: 124

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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 the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

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

2. Project summary

The domain of our project will be in space science and astronomy, which involves tracking multiple celestial bodies, phenomenas, theories, and images. The database will store attributes of different type of celestial bodies, phenomena, theories, astronomers, observatories, and telescopes. Beside storage, the application will also linking different entities together through multiple relationships such as found, authored, where and how the pictures are taken, or how different theories explain different phenomena, or tracking astronomers research work, for efficient access and retrievals.

3. Timeline and Task breakdown:

a. Tasks breakdown

Tasks related to Milestone 4:

- Join at least two schema together
 - Returning full information about a celestial body's subclass through searching its key which involves joining celestial_body schema with any schema that has cb_name and coordinate as its primary key
- Note update queries in documentation

Things users can do with the application:

- Search images by celestial bodies
- Search every images taken by a specific observatory/ telescopes
- Find the total number of theories that an astronomer has worked on
- Search for celestial objects that have not been photographed by any telescope and observatory
- Delete a celestial object and the tuples that have it as foreign key (cascade)
- Insert tuples (see below)
- Change a specific celestial body name, coordinates, or related attributes, such as temperature, classes
- Update links of an image
- Update theories found by an astronomers
- Find the smallest planets in the database
- Find the coldest stars in the database
- Find the oldest stars in the database

Front end tasks

- Setting up the GUI
- Setting up the buttons(delete, insert, enter buttons) and search bar for the applications
- Create a search button

- Display a table
- Put data in the displayed table from the database
- Refresh data in the table through button
- Create text input field
- Add date input field
- Create a button to insert
- Display image using link from database

Back end tasks:

- Setting the SQL file
- Connecting the SQL to the front end
- Create all the schema in Milestone 2 to the SQL file
- Making sure the changes to the schema done by the user is reflected in the database accurately
- Actually insert data from front end input to back end database
 - Add insert Celestial entity tuples functionality
 - Add insert Star1, then Star tuples functionality
 - Add insert Planet1, then Planet tuples functionality
 - Add insert Blackhole and Galaxy tuples functionality
 - Add insert Observatory1, then Observatory tuples functionality
 - Add insert Astronomer tuples functionality
 - Add insert ph_location_found tuples functionality
 - Add insert tel_housed_at1, then tel_house_at tuples functionality
 - Add insert picture_taken_by tuples functionality
 - Add insert found and described tuples functionality
 - Add insert th_explained_by tuples functionality
 - Add insert authored, has, taken_of tuples functionality

b. Timeline

Deadline	Tasks	Assigned	Progress	Notes
March 10th	Setting up the SQL file	Emerald		
March 10	Create all the schema from Milestone 2 to the SQL file	Emerald		
March 10	Add Insert Statements (all the needed insert tuples can be found in milestone 2)	Emerald		

March 16	Add in required Query to the database to view complete information (joining appropriate schemas together) <ul style="list-style-type: none"> - Insert - Update (documentation) 	Emerald and Senlin		Note: Find information about needed queries on the above
March 23	Add in delete Query	Senlin		
March 23	Create queries that involve aggregation: <ul style="list-style-type: none"> - Aggregation with Group By - Aggregation with Having - Nested Aggregation with Group By 	Senlin and Emerald		
March 30	Add in division query	Senlin		
March 10	Setting up the GUI of the application (search page)	Raymond		
March 10	Create page with buttons and inputs for insert and deleting tuples from database	Raymond		
March 23	Making sure all the buttons, and search bar connected to the query of the database	Raymond		
March 10	Create pages for table appearance when user click enter (a new page in the GUI)	Raymond		
March 30	Create general GUI components that related to Aggregated Query (i.e search buttons, search bar etc.)	Raymond		
April 2nd	Milestone 4 submission	ALL		