10/22/20 Added New Fields to planets Table

Jeffrey found a new data source at <http://phl.upr.edu/projects/habitable-exoplanets-catalog/data/database> that contains information on planets within the habitable zone of their star and also a temperature class for planets (hot, warm, cold). I have added these 2 fields to the planets table as habzone and temp\_class. The file did not contain data for all the planets that already existed on the planets table.

As we know, the habitable zone is the area around a star where liquid water could exist. The calculation used to determine this can be found at <https://www.planetarybiology.com/calculating_habitable_zone.html> .

This is different than planets which are believed to be habitable. For that, other considerations are used as well (planet size, density, atmospheric composition).

There is a new sql\_definitions and ERD diagram as well as new code in main.ipynb that I have uploaded to my branch on github reflecting these additions.

habzone – this new column contains nulls for planets not matched on original table, a value of ‘0’ for ones on the table for planets not in the habitable zone, a value of ‘1’ for planets in the ‘optimistic’ zone (63 planets), and a value of ‘2’ for planets in the conservative zone (138 planets).

temp\_class - – this new column contains nulls for planets not matched on original table or which had no value on the new csv data, otherwise they contain “hot”, “warm”, or “cold”. There are 334 “hot” planets, 179 “cold”, and 201 “warm” (yes, the same 201 with habzone codes of 1 or 2).

habit\_code – existing column containing either ‘0’, ‘1’, or ‘2’; where ‘0’ is inhabitable, ‘1’ is planets more likely to be habitable (24), and ‘2’ for planets less likely (36).