Open Exoplanet Catalogue

Deliverable 2: Persona and User Stories

By: Team 5

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Personas

1.1 Professor Sheldon Cooper

- 35 Years old, male.
- Assistant Professor at the University of Toronto teaching Astrophysics and Astronomy.
- Fluent in English and German.
- Involved in many research areas such as planet formation, planet migration, celestial mechanics, Saturn's rings, N-body codes, code development and high performance computing.
- He spends approximately 3 hours per week to contribute to open source projects related to Astrophysics.
- Busy; due to involvement/leadership in multiple projects such as REBOUND, Exoplanet App, etc. Also teaching multiple courses at across the UofT campus such as PHYA01.
- Uses smartphone, iPad and MacBook, familiar with common terminal commands.
- Active GitHub user.
- Uses Facebook, twitter, and other various sorts of social website on daily basis.
- Likes things to be simple and straightforward, dislikes repetitive manual work.
- Capable of learning new software when motivated.

User Stories

2.1 UNIX Environment

As Prof. Cooper, I need a program that runs on a UNIX environment.

2.2 Open Source

As Prof. Cooper, I need a program that uses only open source software. (The two catalogues NASA and Exoplanet.eu are not open source, the scientific data contained therein is public domain but this user story is only referring to the code/libraries we write/use).

2.3 Monitor Multiple Catalogue

As Prof. Cooper I would like an option to add more catalogues to monitor for updates.

2.4 Delete Catalogue

As Prof. Cooper I would like an option to delete catalogues to stop monitoring for updates.

2.5 Notification Scheduler

As Prof. Cooper I would like to be notified once a day via pull requests if there is an update from monitored catalogues so that I can choose whether or not to update the existing catalogue.

2.6 System Script Scheduler

As Prof. Cooper I would like to be able to set a specific time of the day when system should check for updates daily.

2.7 Initiate Update Check Manually and Automatically

As Prof. Cooper I would like an option/button to manually initiate an update check.

2.8 Merging Planets Conflicts

As Prof. Cooper I would like an option when merging updates that show all the "planets" that requires human verification for update. For example, planets with the same name but different mass etc.

2.9 Automatically Generate Update

As Prof. Cooper, I want automatically generated updates for the OEC from other selected catalogues (i.e. NASA Exoplanet Archive, Exoplanet.eu …) for newly added and updates of pre-existing data.

2.10 Convert Data from Catalogues into XML

As Prof. Cooper, I want the updates generated for the OEC to automatically convert data taken from other selected catalogues (i.e. NASA Exoplanet Archive, Exoplanet.eu, …) into the format used by the OEC (plain XML).

2.11 Convert Data into Standard Units Used by OEC

As Prof. Cooper, I want updates for the OEC to automatically convert data from other selected catalogues into the standard units of measurement used by the OEC.

2.12 Pull Request for the OEC

As Prof. Cooper, I want pull requests for the OEC to be presented on a system-by-system basis (for a given planet, star or star system).

2.13 OEC Commit Messages

As Prof. Cooper, I want updates for the OEC to contain commit messages that specify the reference and link (for reference) for the update.

2.14 Merge Updates and Changes via Pull on Git

As Prof. Cooper, I want to be able to merge the updates/changes into the OEC via a pull request on GitHub.

2.15 Discrepancies within Catalogues

As Prof. Cooper, I only want to be notified once when discrepancies exist within other catalogues and be allowed to manually select the correct version of the data; unless the other catalogues data containing the discrepancy is updated again.

2.16 Fetch Required Datasets

As Prof. Cooper, I want to fetch data from other catalogues only if its data field exists in the OEC (i.e. there should not be an update notification if another catalogue updated its value for "Chance of Living Organisms" in Planet X, and the OEC does not have such column for Planet X.

2.17 Threshold to be ignored

As Prof. Cooper, I want the is program to ignore the update if the percentage change between the old and new data is less than 0.0001%

2.18 First Synchronization

As Prof. Cooper, I want the first run of the program to check all planets in the other catalogues and create pull requests for available updates.

2.19 Update Data Based on the Last Updated

As Prof. Cooper, after the first run of the program where possible I would like the program to only check data in other catalogues that has been updated since the last run of the program.

2.20 Handle Alias while Updating Data

As Prof. Cooper, I want the updated data to be in corresponding systems (planets) in the OEC even if the systems are named differently in other catalogues.

2.21 Handle Human Error while Updating Data

As Prof. Cooper, I want the updated data to be in corresponding systems (planets) in the OEC even if the system's' name contain typo/errors in other catalogues.