C2 – Case Study #2 - Program Comprehension and Feature enhancements

Due date: 21/11/2023 at 23.55

The general learning objectives of this deliverable are twofold:

1. Comprehend what the source code does which is assigned to your group and document it.
2. Gain a general overview of the implementation of OpenTracksConcordia/ OSMDashboardConcordia.
3. Ensure that you are able to compile and build OpenTracksConcordia/ OSMDashboardConcordia
4. Identify change impact and assign maintenance tasks to individual groups
5. Start with the implementation of the change requests.
6. Validate your changes and merge them

PART 1 – GENERAL SYSTEM COMPREHENSION

The first part is a general introduction – which includes a cover page and documenting what the source code assigned to your group does. This is mostly a group effort

DELIVERABLE – PART 1 – GENERAL SYSTEM COMPREHENSION :

a. Cover page with Group # and list of the group members.(**group**)
b. A table, indicating the contribution of each group member. (group)
Name, ID, Contribution (towards the group and individual part)
c. Specify if you were able to build the source code. (**individual**)
d. Comprehend what the source code assigned to your group does and document it by completing the corresponding entry in the Wiki found at:
https://github.com/rilling/OpenTracksConcordia/wiki

https://github.com/rilling/OSMDashboardConcordia/wiki

All groups working on a specific repository are sharing the same Wiki.

Add a screen capture of your Wiki entry (group deliverable)

PART 2 – ISSUE(S) ASSIGNED TO YOUR GROUP

I provided a list of quite diverse features/enhancements with at least one of them that should be implemented by your group. Many of these issues will involve a number of groups. See issues posted on the GitHub repositories (Milestone 2).

https://github.com/rilling/OpenTracksConcordia/issues

https://github.com/rilling/OSMDashboardConcordia/issues

The goal is that each of these features will end up becoming small projects

The learning objectives are:

- Coordinate the work among multiple stakeholders
- Communication among all students in the class
- Comprehension of existing source code
- Analyze the feature enhancements and assign responsibilities to individual groups (leads) and then further break down task in subtasks.
- Integration of new features in an existing code base

Recommended approach to be used:

a. Each group should specify a group leader.
b. Once you select one of the original issue (that I created), it should be assigned to the leader of a group. Make sure to label the issue also with your group #.
c. Each feature request should become its own branch and integrated at the end into the master branch.
d. As part of implementing a particular feature/enhancement, additional issues/tickets might have to be created as subtasks (assigned to individual group members of your group) and/or assigned to other groups (e.g., who groups who are in charge of maintaining specific parts of the OpenTracks source code). Important, these issues should make a reference (label) to your group# and to the issue # of the original feature request.

For a list of groups and their dependencies

- https://github.com/rilling/OpenTracksConcordia/wiki

- https://github.com/rilling/OSMDashboardConcordia/wiki

Perform an impact analysis and briefly discuss the dependencies with other groups you identified. Include the issue(s) that you created/assigned to your group/individual of your group. (Link + screen capture)

Provide a breakdown of the work – who in your group is charge of what.
Implement the feature request – each individual who is making changes (commits) to the source code has to make sure that their commit does not break the build. It would be a good decision to have somebody in your group also to be in charge of the Quality Assurance **(group/individual)**

Note:
Everybody has to participate in this part. It is possible that 2 or more people work together (but still everybody has to actively participate).

DELIVERABLE PART 2 – ISSUE(S) ASSIGNED TO YOUR GROUP

Each group member (members if they work together) should briefly document the contribution one has made.

- Brief description of the contribution (the responsibility which was assigned + outcome – was the task completed?)
- Provide some evidence - e.g.,
    - code one has worked on (link/screen capture),
    - link to the commits + screen capture
    - updated issue (link + screen capture)
    - Merge in the group branch (link + screen capture)

Also **each group member** should briefly discuss: Challenges you faced (individual)

- Merge in the main branch (group)

Note: Combine everything in **one PDF document. Important:** only **one submission** per group**.**