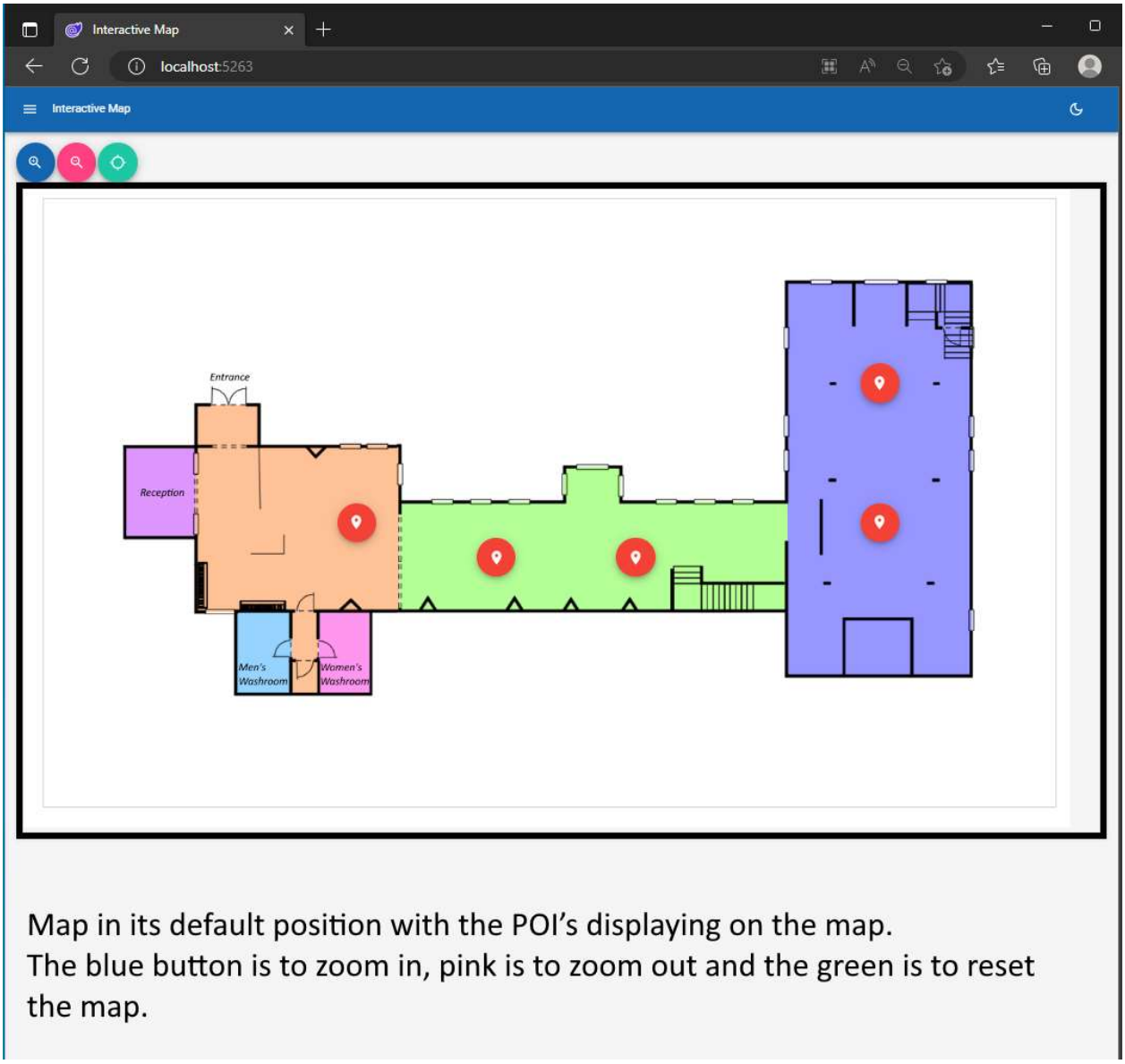
1. Write the name of your group members and their roles in the group.

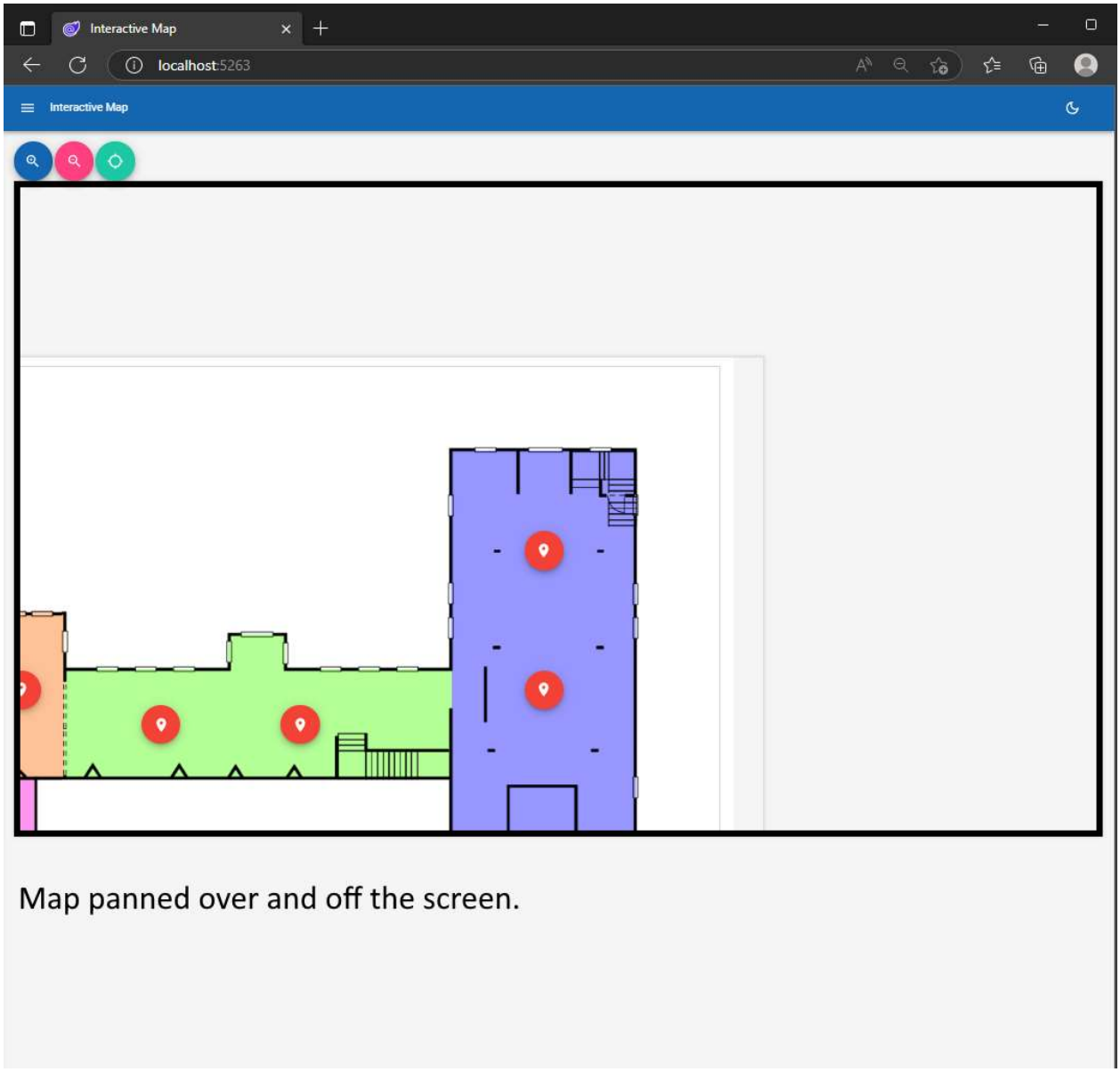
Group members:

- Sebastian Wood 6664189, Scrum Master and Full Stack Developer
- Chris Delo 6418024, Product Owner and Backend Developer
- Marcus Pozzobon 6655633, Frontend Developer
- Luke Hopkins 6266928, Backend developer
- Tong Zhang 6787949, Backend Developer
- Ethan Natanegara 6264295, Developer and Graphic Designer
- Yashasvi Sharma 6837892, Developer

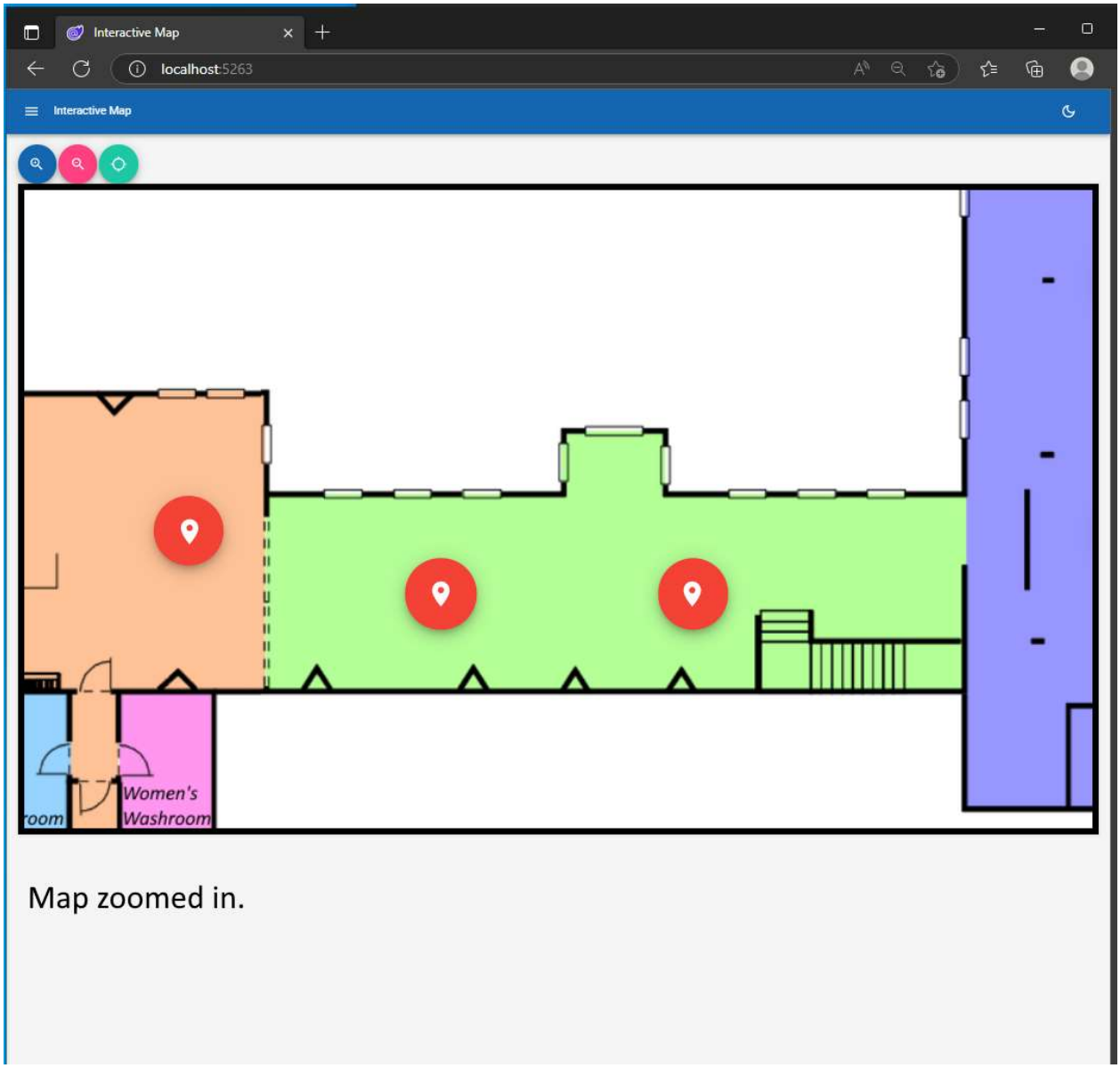
2. Include a brief list or description of the features (subsystems) that you planned to implement in each sprint, and whether or not you accomplished them.
    a. Backend
        - Points of interest with their position, relevant ids, and type were implemented with accompanying Create/Read/Update/Delete functions implemented with associated tests.
        - Maps implemented with all relevant structures and CRUD functions implemented with associated tests.
        - Database implemented using a non-SQL framework
        - Database, API and Web app all hosted on Azure.
        - Deployment pipelines for API, web app, admin tool created
    b. Frontend
        - Display map image
        - Make map moveable within a set area
        - Make map zoomable
        - Add points of interests on the map that are clickable
        - Make a map reset button
3. Provide a brief list of features (subsystems) that you plan to implement in the following sprints.
    a. Backend
        i. Minor adjustments to models
    b. Frontend
        i. Implement a menu component to be displayed on the home screen.
        ii. Change the POI's to be their own component.
        iii. Make a component to display exhibit information that opens when a POI is clicked.
        iv. Limit the amount that the map can be zoomed in/out
        v. Aesthetic changes to fit with NOTL museum style
4. Include screenshots of a working version of the system, if available.



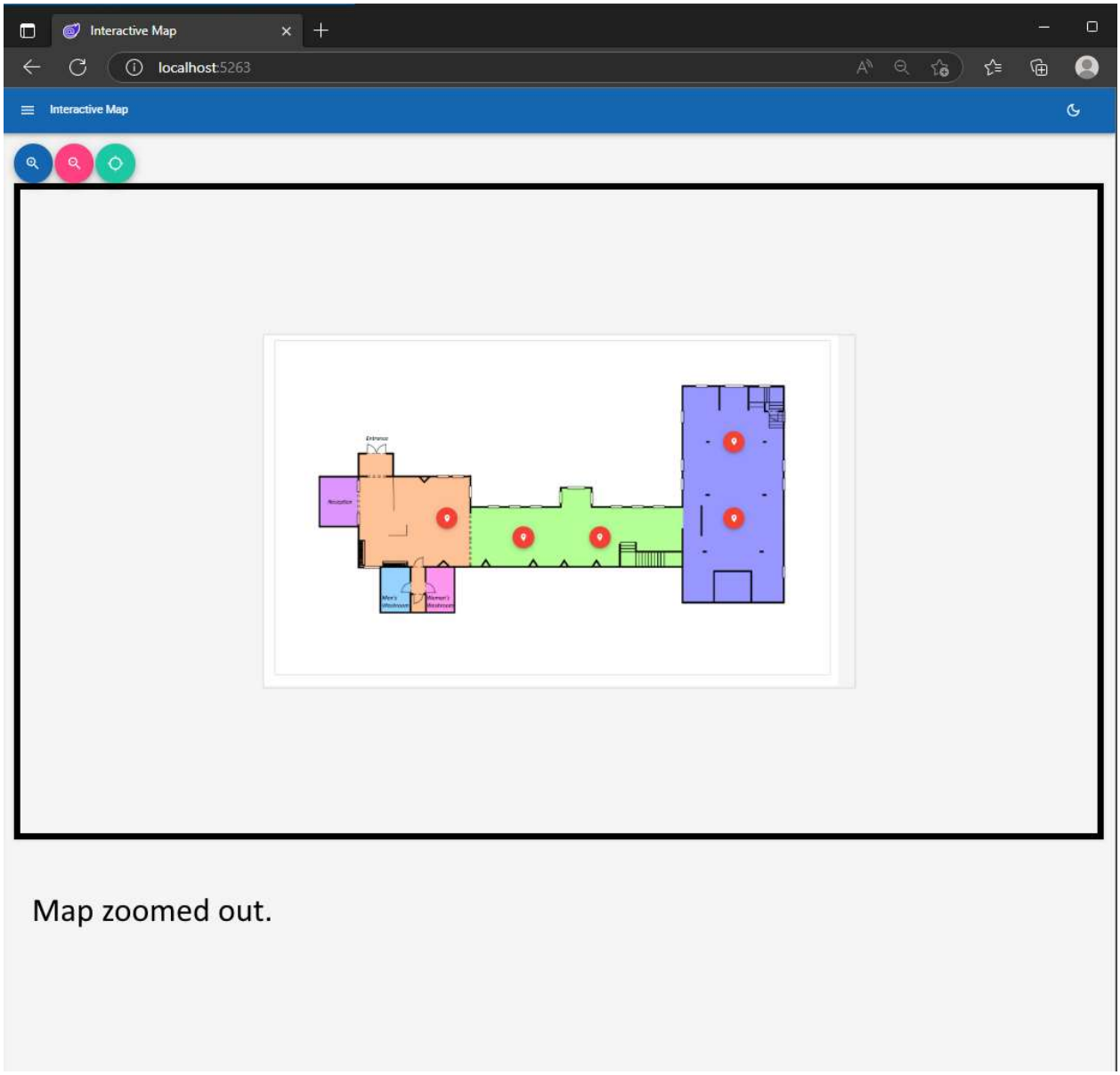
Map in its default position with the POI's displaying on the map.
The blue button is to zoom in, pink is to zoom out and the green is to reset the map.



Map panned over and off the screen.



Map zoomed in.



Map zoomed out.

5. Mention any issues that you encountered.
- When implementing the panzoom, we are encountering an issue where a warning is being displayed. The warning is in reference to the panzoom object reference and the warning is as follows: CS8625 - *Cannot convert null literal to non-nullable reference type.*
- When displaying the POI's on the map, they were not scaling with the map when the window was resized, and had to change their position from relying on percents to pixel coordinates.
- At the moment test code is non-functional. Connecting code is yet to be written, but is being worked on.

6. Describe the contributions and achievements of each member of the group as well as their GitHub logs
    - Chris: As product owner, emailed back and forth as well as met with the museum staff in person to ascertain functional and nonfunctional requirements. As developer,

coded POI Create/Read/Update/Delete functions, and implemented tests for all these but the POI Update functions.
    - https://github.com/seb74813/COSC4P02NOTLInterctivemap/commits?author=CDelo&since=2023-01-15&until=2023-03-04
- Marcus: As a frontend developer, researched methods on how to effectively display the map on the page while making it pannable and zoomable. Also needed to find an effective way to add points of interest icons on the map. Found a Blazor library called BlazorPanzoom that allows the display of images to be displayed within a set area. Implemented frontend code with BlazorPanzoom that displays the map within a box that is moveable, zoomable and has clickable POI's.
    - https://github.com/seb74813/COSC4P02NOTLInterctivemap/commits?author=marcuspozzobon
- Ethan: As a developer, wrote automated tests to ensure that map functions (map and POI retrieval), currently assigned to working on the administration page. As a graphical designer, designed and provided multiple versions of the map based on feedback from other team members, as well as other graphical changes such as loading and tab icons.
    - https://github.com/seb74813/COSC4P02NOTLInterctivemap/commits?author=Pyhrrous (NOTE: earlier into the project I was posting map revisions into the group chat for others to integrate into the system instead of pushing directly using Git.)
- Luke: As a backend developer assisted in the creation of API calls, personally created the delete functions for the map and for POIs. Also wrote test code for testing POI modification and retrieving POIs.
    - https://github.com/seb74813/COSC4P02NOTLInterctivemap/commits?author=Hopper2
- Tong: As a backend developer, created some APIs for creating maps, getting maps and getting map POIs. And wrote test codes for testing APIs, such as map modification test and get maps test.
    - https://github.com/seb74813/COSC4P02NOTLInterctivemap/commits?author=antoniotongzhang
- Yashasvi: I am currently assigned to the front-end development. My responsibilities include implementing the user interface of the application, creating responsive layouts, incorporating interactive elements, and ensuring that end users can use the system without any difficulty. Additionally, I am also responsible for testing the application, identifying and fixing any issues, and providing support during the deployment phase.
  -https://github.com/seb74813/COSC4P02NOTLInterctivemap/commits?author=yashasvisharma2019&since=2023-01-15&until=2023-03-05
- Sebastian: As a full-stack developer who has worked on several similar projects in the past. I am the most familiar with the Blazor framework and backend systems. I also ported over quite a lot of code from previous projects. This allowed us a quick start to writing more feature oriented code. I also set up and manage the back-end systems on Azure. I also consult my fellow team members on good practices in the frameworks we are using. Commits · seb74813/COSC4P02NOTLInterctivemap

(github.com) Something I will note is that about a third of my commits were just me trying to fix the gitignore.