Team name: Group4_YU Navigation Map
Members:

Basic concept:

We decided to build an AR map on the York campus, and the projection will appear when you scan the building/sign on the campus. That is a kind of AR navigation camera that leads the students to know what the path or the building is. Using preselected targets (example the lassonde building sign), we will use text recognition in order to scan the sign, then use that information to retrieve information about the building in question. For example, if we scan the Lassonde building sign, in AR, a list of courses taught in the building and maybe a map of the building's internal layout will be produced in AR. It would also give the user the option to save this information and use it as a guide inside the building so they don't get lost.

Resource:

- each student is responsible for locating 10 resources
    - they can be links
    - they can be books
    - they can be code
    - they can be existing works
    - they can be people, places, things that inspire you
    - things you hate, things you love etc.
- each student will be responsible for 5 x technical resources and 5 x artistic/design/aesthetic resources
- add the links to your local copy of the file

Zihan Cao:
artistic/design/aesthetic resources:

1.https://www.youtube.com/watch?v=LdnbvT1yIIM
2..https://industrial.viewar.com/?gclid=Cj0KCQiA0p2QBhDvARIsAACSOONMLrdQJB6Em2FTxEsQshidK6D-Wq2oX2DMHJ3rBdSUH8ai-kaIlb0aAtZVEALw_wcB
3.https://www.youtube.com/watch?v=AidepRnwbNc
4.https://www.youtube.com/watch?v=jPqN78-sbWo
5.https://www.youtube.com/watch?v=gqOYPMjWkes

technical resources:
1.https://youtu.be/x8Me2lQUyjg
2.https://github.com/antonyraphel/ARCarMovement
3.https://github.com/nesseratious/AR-Navigation
4.https://github.com/sofwerx/AR_Navigation
5.https://github.com/chel-seyy/Android-App-AR-Map-Navigation

Yuqing Guo:
Artistic/design/aesthetic resources:
1. https://themindstudios.com/blog/5-best-augmented-reality-sdks-and-frameworks/
2. https://experiments.withgoogle.com/collection/ar
3.https://www.wired.com/story/john-hanke-niantic-augmented-reality-real-metaverse/
4.https://www.bilibili.com/video/BV1DV411k7Bz?from=search&seid=2932976992384029195&spm_id_from=333.337.0.0
5.https://vrscout.com/news/3d-scanner-app-ar-apple-quick-look/

Technical resources:
1. https://github.com/GeekLiB/AR-BXT-AR4Python
2.https://www.jb51.net/article/174621.htm
3.https://www.youtube.com/watch?v=NIXJJoqM8BQ
4.https://www.youtube.com/watch?v=Nc1dPd6gIRU
5.https://github.com/cyrildiagne/ar-cutpaste

Jingheng Xu:

Artistic/design/aesthetic resources:
1.https://www.roadtovr.com
2.https://www.quanjing.com
3.https://www.iberdrola.com/innovation/virtual-reality
4.https://www.youtube.com/watch?v=0p8HZVCZSkc

5.*Unity Virtual Reality Projects Explore the world of Virtual Reality by building immersive and fun VR projects using Unity 3D* by Jonathan Linowes

technical resources:
1.https://www.vrfavs.com
2.https://threejs.org/
3.https://www.youtube.com/watch?v=QvUkcw63bAs

Jason Lu:

artistic/design/aesthetic resources:

1. https://overlyapp.com/blog/augmented-reality-art-opportunities-and-examples-for-artists-and-creatives/
2. https://medium.com/predict/augmented-reality-transforms-artworks-into-experiences-1b72440a7094
3. https://www.bilibili.com/video/BV1nb4y1R7Zh/?spm_id_from=333.788.recommend_more_video.-1
4. https://www.inap.com/blog/7-incredible-examples-of-augmented-reality-technology/
5. https://econsultancy.com/14-examples-augmented-reality-brand-marketing-experiences/

technical resources:

1. Augmented Reality using OpenCV Python | Masking and Augmentation …
2. FACE RECOGNITION + ATTENDANCE PROJECT | OpenCV Python | …
3. https://mphy0026.readthedocs.io/en/latest/summerschool/bard.html
4. https://www.varonis.com/blog/git-branching#:~:text=To%20merge%20branches%20locally%2C%20use,branch%20into%20the%20main%20branch.
5. https://www.bilibili.com/video/BV1H64y1y7X1/?spm_id_from=333.788.recommend_more_video.0

Yidan Zhang:

artistic/design/aesthetic resources:

1. https://basa-studio.com/stories/7-AR-artists-who-are-raising-the-bar
2. https://www.youtube.com/watch?v=hDjCTg41jfU&t=1s
3. https://www.youtube.com/watch?v=3xq4DWCJUks&t=27s
4. https://www.youtube.com/watch?v=YJg02ivYzSs&t=2s
5. https://www.youtube.com/watch?v=Drwkvk8j-tc&t=4s

technical resources:

1. https://www.codeproject.com/Tags/Augmented-Reality
2. https://github.com/mafda/augmented_reality_101

3. https://blog.csdn.net/weixin_44192622/article/details/89077324?spm=1001.2101.3001.6650.3&utm_medium=distribute.pc_relevant.none-task-blog-2%7Edefault%7ECTRLIST%7ERate-3.pc_relevant_default&depth_1-utm_source=distribute.pc_relevant.none-task-blog-2%7Edefault%7ECTRLIST%7ERate-3.pc_relevant_default&utm_relevant_index=6
4. https://github.com/jayantjain100/Augmented-Reality
5. https://github.com/yassersouri/simple-augmented-reality

1. WEBSITE: Groups are to build their basic github pages website. This requires your group repo to be public - for now, submit the repo under public settings. Once your website has been verified and accepted you may swap back to private to continue building if you choose.
    - but remember to test under public settings using your pages site as you continue building your project
    - you may follow the sample site structure shown in this repo
        - mine is set up where all content to be displayed and site structure files are found in `docs/website/`
        - remember how we set up for Lab Project 1 (browser extensions)... `index.html`, `style.css` etc.
        - site has been updated to deploy from the `branch` called `gh-pages`
        - the directory structure will change as we build more content over the next 5 weeks
2. DOCUMENTATION: An example of documentation of the following:
    - video capture of an `over-the-shoulder` view of your group's github pages running/showing a live `AR` scene
    - screen capture of the AR live scene
3. ASSETS: You do not need to submit any final/polished/production-ready content but you must include:
    - an example of at least one asset/3D model created by the group

      3D model: Zihan Cao

    - a custom `QR` code that directly loads to your AR scene on github pages

      QR code & custom pattern & AR-html code: Adele

    - a custom `pattern` or `barcode` marker for the `AR` scene
    - QR code for the website

    - AR-html
    - the asset is to be displayed via the groups pages site, and can be activated when someone scans the QR code via mobile

      Html

      Set up github using tutorial on eclass: Jason

4. GROUP: Document at least one more group meeting between now and March 14th - have a more focused discussion on what your group is planning for the final project
    - include a discussion summary, images, sample code or artwork etc.
    - point-form is OK as are other methods of documentation

GOOD ENOUGH FOR NOW - MORE WILL BE UPDATED over the weekend - so everyone should try out the simple AR scene

Meeting1 Friday 4th:

planning to use gps coordinates on yorku signs

video capture (for now)

website which will have a button that will allow you to use the AR feature

pop up information building

planning to have models of building(s)

using an AR line/thread that will lead you from building to building, like an AR gps

Division of Job:

3D model: Zihan Cao

Set up github webpage using tutorial on eclass: Jingheng Xu

QR code and pattern/popup/Ar-html: Yidan Zhang

html: Yuqing

css: Jason

our group LOGO:

QR code

Custom pattern

Meeting on Friday the 11th:

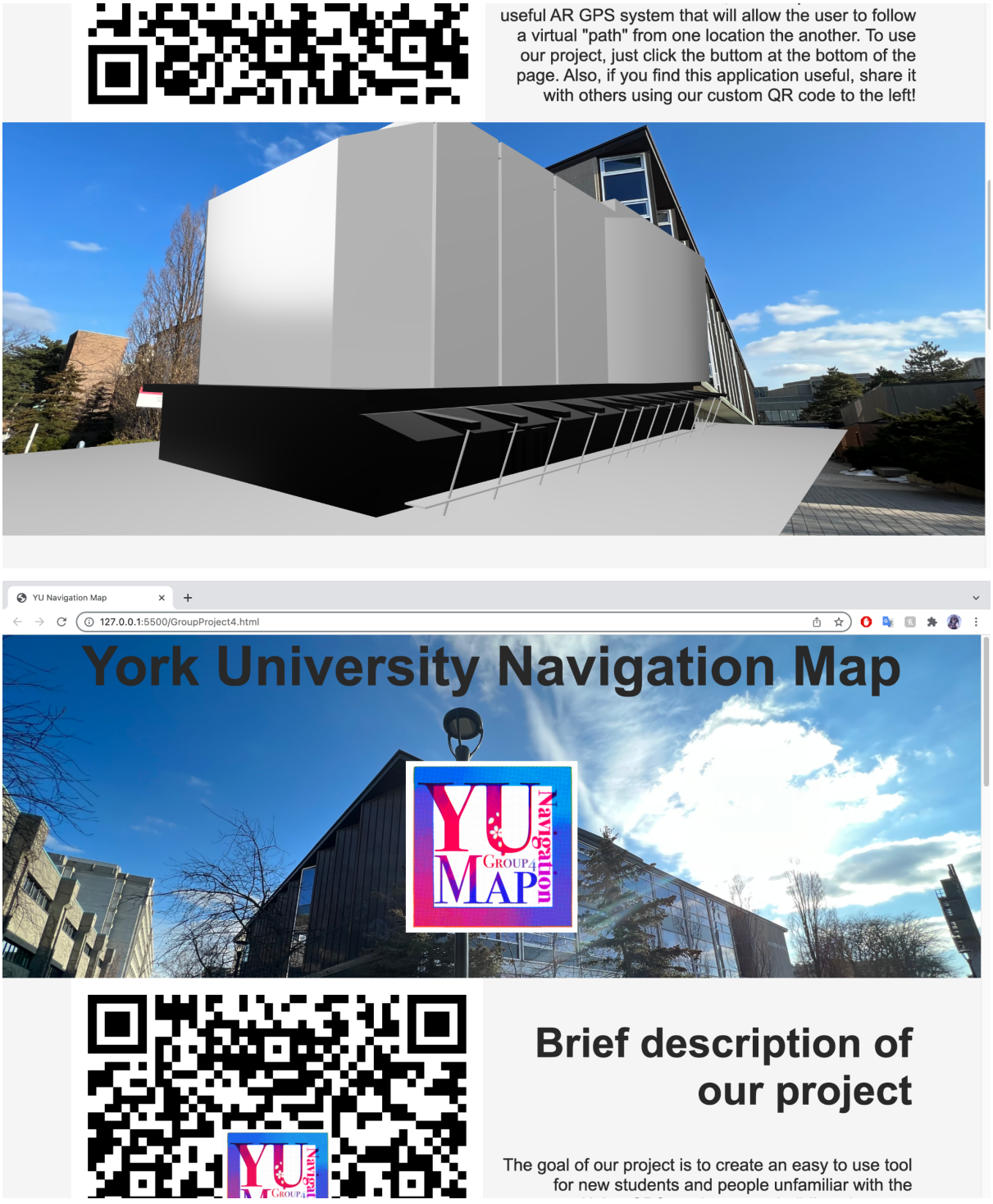
Yuqing: AR (may not have enough time)

Jason: Replace pictures with lassonde building and swap out with example page on github main branch

Everyone: pick up where Yuqing left off on Sunday

Meeting on Sunday the 13th:

- Finalize PDF
- Get AR to work on website



Using model-viewer to have 3d models show up in html

Sample Code of AR

roupProject4.html AR_GroupProject4.html ×

AR_GroupProject4.html > ...

```
---
layout: default
title: AR Site
permalink: marker-based/ar-custom-pattern.html
---
<!DOCTYPE html>
<html>
    <head>
        <meta name="viewport" content="width=device-width, user-scalable=no, minimum-scale=1.0, maximum-scale=1.0">

        <script src="https://aframe.io/releases/1.0.4/aframe.min.js"></script>
        <script src="https://raw.githack.com/AR-js-org/AR.js/master/aframe/build/aframe-ar.js"></script>
    </head>

    <body style='margin : 0px; overflow: hidden;'>

        <a-scene
        arjs="sourceType: webcam; debugUIEnabled: false;"
        embedded
        renderer="logarithmicDepthBuffer: true;"
        vr-mode-ui="enabled: false"
        id="scene">
        <a-assets>
            <a-asset-item id="LassondeBuilding" src="https://raw.githubusercontent.com/robots-make-art-too/Group4_YU-Navigation-Map/dev_Yidan_
        </a-assets>
            <a-marker type="pattern" url="https://raw.githubusercontent.com/robots-make-art-too/Group4_YU-Navigation-Map/dev_Yidan_Zhang/patt
                <a-entity id="entity-lassonde" positon="0.5 0.5 0" rotation="0 0 0" scale="0.005 0.005 0.005" gltf-model="#LassondeBuilding">
            </a-marker>

            <a-entity camera></a-entity>

        </a-scene>


    </body>
</htlm>
```