APHRODITE

Kainotomia

Aphrodite

Daniel Moore (n01354875)
Alyssa Gomez (n01042777)
Jose Antonio Teodoro (n01384776)
Ryan Black (n01305403)

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Team Contract

CENG-322 TEAM PROJECT

Team Name: _____**Kainotomia**_____

Project Name: _____**Aphrodite**_____

Please negotiate, sign, scan and include as the first section in your Deliverable 1.

Please note that if cheating is discovered in a group assignment each member will be charged with a cheating offense regardless of their involvement in the offense. Each member will receive the appropriate sanction based on their individual academic honesty history.

Please ensure that you understand the importance of academic honesty. Each member of the group is responsible to ensure the academic integrity of all of the submitted work, not just their own part. Placing your name on a submission indicates that you take responsibility for its content.

Team Member Names (Please Print)	Signatures	Student ID
Project Leader: Daniel Moore	*DM*	n01354875
Alyssa Gomez	*AG*	n01042777
Ryan Black	*RB*	n01305403
Jose Antonio Teodoro	*JAT*	n01384776

**For further information read Academic Honesty Policy on
https://humber.ca/legal-and-risk-management/policies/search-by-students.html.**

By signing this contract, we acknowledge having read the Humber Academic Honesty Policy as per the link below.

https://academic-regulations.humber.ca/2018-2019/17.0-ACADEMIC-MISCONDUCT

Responsibilities of the Project Leader include:

- Assigning tasks to other team members, including self, in a fair and equitable manner.
- Ensuring work is completed with accuracy, completeness and timeliness.
- Planning for task completion to ensure timelines are met
- Any other duties as deemed necessary for project completion
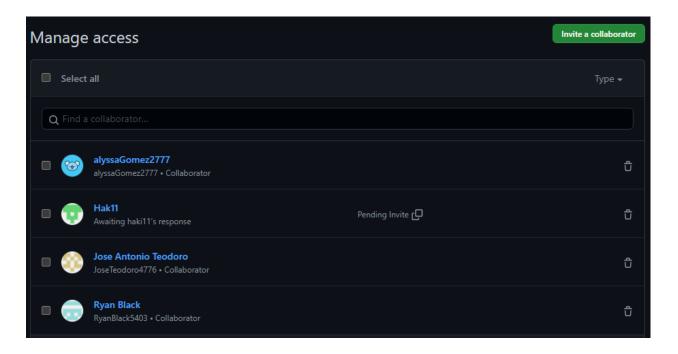
What we will do if . . .

Scenario	Accepted initials	We agree to do the following
Team member does not deliver component on time due to severe illness or extreme personal problem	D. M. A.G. R.B. J.A.T.	a) Team absorbs workload temporarily ✓
Team member cannot deliver component on time due to lack of ability	D. M. A.G. R.B. J.A.T.	b) Team helps member ✓

Team member does not deliver component on time due to lack of effort	D. M. A.G. R.B. J.A.T.	b) Team "fires" team member by not permitting his/her name on submission ✓
Team member does not attend team meeting	D. M. A.G. R.B. J.A.T.	a) Team proceeds without him/her and will assign work to the absent member ✓
An unforeseen constraint occurs after the deliverable has been allocated and scheduled (a surprise test or assignment)	D. M. A.G. R.B. J.A.T.	a) Team meets and reschedules deliverable ✓
Team cannot achieve consensus leaving one member feeling "railroaded", "ignored", or "frustrated" with a decision which affects all parties	D. M. A.G. R.B. J.A.T.	a) Team agrees to abide by majority vote ✓
Team members do not share expectations for grade desired	D. M. A.G. R.B. J.A.T.	b) Team votes on each submission's quality ✓
Team member behaves in an unprofessional manner by being rude or uncooperative	D. M. A.G. R.B. J.A.T.	a) Team attempts to resolve the issue by airing the problem at team meeting ✓
Team member assumes or requests that his/her name be signed to a submission but has	D. M. A.G.	a) Team agrees that this is cheating and is unethical ✓

not participated in production of the deliverable	R.B. J.A.T.	
There is a dominant team member who is content to make all decisions on the team's behalf leaving some team members feeling like subordinates rather than equal members	D. M. A.G. R.B. J.A.T.	a) Team will actively solicit consensus on all decisions which affect project direction by asking for each member's decision and vote ✓
Team has a member who refuses to participate in decision making but complains to others that s/he wasn't consulted	D. M. A.G. R. B. J.A.T.	b) Team routinely checks with each other about perceived roles ✓

Github Link & Invitation

https://github.com/DanielMoore4875/Aphrodite

Project Background & Description

Project Goals and Final Vision

With our project Aphrodite, some goals include creating a smart mirror display capable of being controlled from an Android app, the ability to stream a video to the mirror, and the ability to have multiple accounts and profiles that are easy to switch between. As for the final vision, we want Aphrodite to be a simple display that is capable of displaying the temperature and humidity of the current room, weather, a personalized message and other dashboard modules that the user will be able to choose from. It should also be able to respond to voice commands and will be able to detect the proximity of a person and act accordingly.

Hardware & Software Aspect

Hardware

The main computer side hardware for our project will consist of 3 core components: Raspberry Pi 4, a 21.5" monitor and our custom PCB board. Other hardware will include a 2-way mirror, frame, and LED lights. The Raspberry Pi 4 will be used as the main hub for connecting our pcb as well as hosting the software that will be displayed onto our monitor. The monitor, a 21.5" repurposed ASUS monitor will be used to display the app-customizable dashboard that we will create from the software hosted on the Pi. The custom PCB will include all our sensors (voice recognition, temperature, humidity and proximity) and be plugged into the Raspberry Pi to send the readings to be processed and displayed. Additionally, LED lights will be added around the frame to give the user customizable lighting.

Software

The Raspberry Pi will be the main CPU for our project and will be running the dashboard software, MagicMirror. This software is an open source modular dashboard platform that uses the JavaScript scripting language. The Android app will be used to customize the layout of the mirror dashboard and save multiple user layout profiles in the cloud. We will be developing an interface to communicate the changes from the app to the Raspberry Pi dashboard software using SSH or a similar technology.

Screen Flows

1. Welcome/ Sign In Page, Sign In using Google (Firebase Auth)<mark>*</mark>
   - Authentication will be handled by Firebase server to retrieve user profile
   - Once user account created, move to next screen
2. View Current Mirror Layout Page
   - Shows default mirror layout or whichever one the user has most currently loaded
3. Customize Mirror Layout Page
   - User can choose from a list of dashboard available and put them into any configuration
4. User Settings Page
   - Option to clear all profiles
   - See all saved layouts
   - Under password locked menu, option to delete account (would remove all app user data linked to this users google account from the server)
   - Option to sign out

<mark>*</mark>After signing in once, user info will be saved and next time the app opens, it will authenticate automatically and go right to page 2.

Incorporating Feedback

Taking the feedback provided through the interview, we plan on incorporating it back into our project by keeping most of our original pitch relatively the same due to not having many complaints during the interview, although in a separate interview with Professor Tian we have decided to include a voice recognition feature which would have our mirror include a microphone inside.

Read / Write from the Cloud-Hosted Database

We will be using Firebase Google Cloud Platform to store user data and profile settings. With this Google integration, we will use Sign In with Google to authenticate users and then store their account info in the database to link to each mirror layout profile. Once a user has submitted a layout from the app, the database will store that new profile and it will be sent to the mirror to be loaded.

Project Scope

       The plan for our smart mirror project is to have a working dashboard display behind a 2-way mirror that can have its layout changed using the Android app. Each user will be able to link their Google account to the app and create multiple profiles that can have different mirror layouts. The mirror's proximity sensor will be able to detect when a person is close and display the last profile that was loaded. Using the mirror's voice recognition module, the user will be able to switch between profiles using pre-set voice commands. The project will be complete once this happens.

Themes/Epics/Stories

Change smart mirror dashboard layouts remotely

Cloud Storage

- Database
  - ○ Firebase Google Cloud Platform
  - ○ User Account Link
  - ○ User Profile (for each mirror layout)
  - ○ User Settings and Preferences

- Account Security
  - ○ 2FA on their Google Account
  - ○ Ask user permission to access account data
  - ○ Hash User data that is collected

- Admin Accessiblity
  - ○ Debug screen for admin users
  - ○ Analytics tracking for app usage
  - ○ Ability to access user data to troubleshoot with the user (must get user permission)

Android Application

- User Accounts / Settings
  - ○ Create a user account
  - ○ Add multiple profiles to an account
  - ○ View profiles
  - ○ Remove profiles

- Secure Sign In
  - ○ Access database to check if user already exists
  - ○ Create new user if user does not exist and link data to Google account
  - ○ Multiple User login attemps will cause account to lock itself. Can only be unlocked by contacting admin and resetting password
  - ○ Integration with Google Auth for 2FA

- Layout Settings
  - ○ Specific to user account and profile
  - ○ Simple drag and drop interface
  - ○ Increase / Decrease size of each dashboard item
  - ○ Upload configured mirror profile to database and mirror