



CENG-322 TEAM PROJECT

Team Name: Hermes Logistics

Project Name: PetasosExpress

Team Number: 1

Team Members:

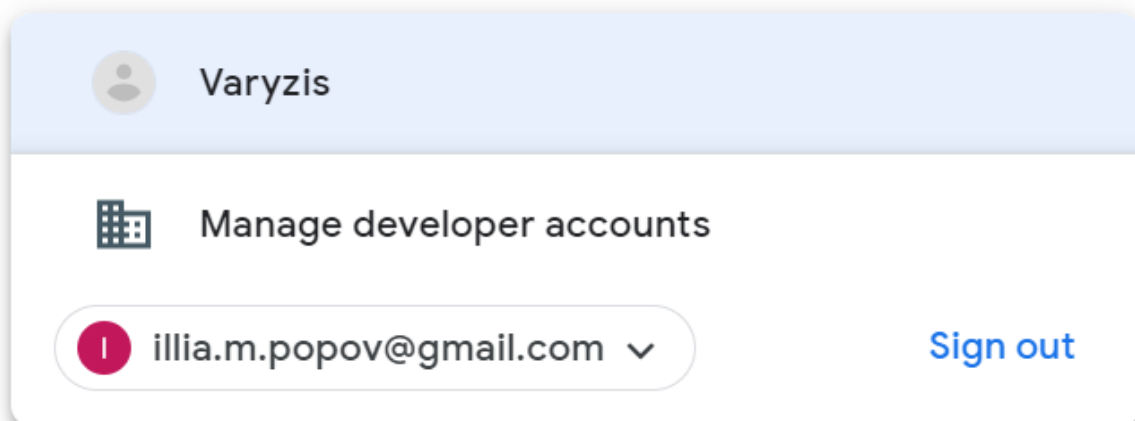
- Illia Myrza Popov (n01421791)
- Ahmad Aljawish (n01375348)
- William Margalik (n01479878)
- Dylan Ashton (n01442206)



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Developer Account Creation Confirmation:








GitHub Repository Links:

GitHub Repository: <https://github.com/IlliaPopov1791/PetasosExpress>

GitHub Team's Project: <https://github.com/users/IlliaPopov1791/projects/2>

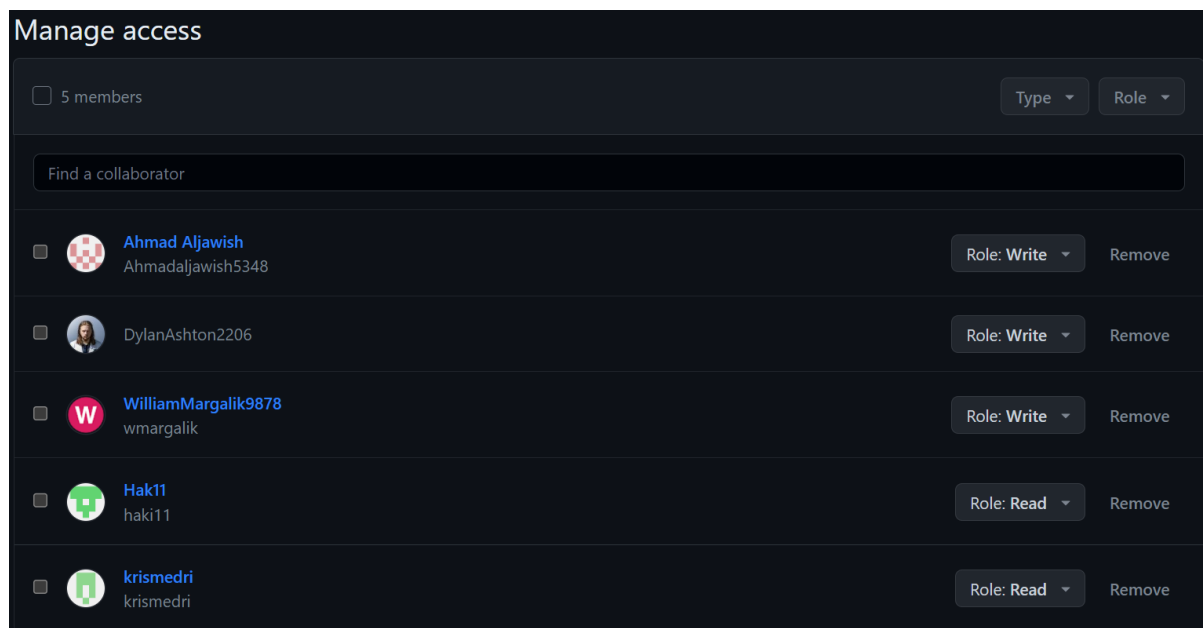
GitHub Invitation Confirmation:

Repository Invites of Software Project and Hardware Production professors, and all team members (Taken by IlliaPopov1791):

<input type="checkbox"/>		Ahmad Aljawish Ahmadaljawish5348 • Collaborator	Remove
<input type="checkbox"/>		Dylan Ashton2206 Collaborator	Remove
<input type="checkbox"/>		Hak11 haki11 • Collaborator	Remove
<input type="checkbox"/>		krismedri Collaborator	Remove
<input type="checkbox"/>		William Margalik9878 wmargalik • Collaborator	Remove



Project Invites of Software Project and Hardware Production professors, and all team members (Taken by IlliaPopov1791):



Project Background and Description:

1. Project Goals and Final Vision: Our project aims to create a seamless and efficient delivery experience using autonomous robots. The vision is to enable users to order items through a user-friendly mobile app, have those items picked up and delivered by autonomous robots, and provide real-time tracking and sensor data access for transparency and control.

2. Software Aspect and Hardware: The application, known as "PetasosExpress," combines software and hardware components. On the software side, it provides an intuitive interface for users to place delivery orders, track robot locations, and access sensor data. The hardware aspect involves autonomous delivery robots equipped with GPS sensor, distance sensors, proximity sensors, balance sensors, and motor sensors.

3. Screen Flows: PetasosExpress features a user-friendly interface with screens for ordering items, tracking deliveries, and accessing sensor data. Users can easily navigate between these screens to manage their deliveries and monitor robot status using a navigation drawer.

4. Incorporating Feedback: We have incorporated your feedback received during user interviews to enhance the app's usability and functionality. Professor Haki's suggestions about sensor screens and adding a GPA sensor have been considered in the app's design and features.



5. Database Integration: To achieve real-time data access and synchronisation, we plan to use Firebase as our cloud-hosted database solution. This will enable seamless reading and writing of data, ensuring that users have up-to-date information on their deliveries and robot status.

Project Scope:

The technical scope of the project encompasses the development of an Android application for a Delivery Robot service. The project's plan includes creating a prototype of the app that allows users to place orders for items to be picked up and delivered by a robot. The project's completion criteria will be met when the app is fully functional and provides the following key features:

- Users can place orders for pickup and delivery.
- Users can track the robot's real-time location (GPS sensor).
- Users can access and view sensor data from the robot, including Distance Sensor, Proximity Sensor, Balance Sensor, and Motors sensor.
- The app is integrated with Firebase for database functionality.
- The app supports both English and French languages.
- All screens and components are designed with responsive layouts.

Project Layout:

The project will implement a Navigation Drawer for navigation within the app. The Navigation Drawer will be utilized to provide easy access to various sections of the application, enhancing user experience and accessibility. The reasons for using a Navigation Drawer include:

- Efficient Navigation: A Navigation Drawer allows users to navigate between different sections of the app quickly, promoting a smooth user experience.
- Clean Interface: It keeps the main screen clutter-free, ensuring a neat and organized layout.
- Consistency: Many existing applications, such as food delivery or e-commerce apps, utilize Navigation Drawers for consistent and intuitive navigation.
- Adaptability: The Navigation Drawer is versatile and can accommodate multiple menu items, making it suitable for applications with various features.
- User-Friendly: It enhances the overall user-friendliness of the app by providing a familiar and user-friendly navigation pattern.



In comparison to other navigation methods like Tabbed Layout or Bottom Navigation, the Navigation Drawer is preferred for this project because it can accommodate a wide range of features and sections, which is essential for an application that combines order placement, robot tracking, and sensor data access. It provides a holistic and accessible navigation structure for the diverse functionalities of the app.

By using the Navigation Drawer, users can easily switch between ordering items, tracking robot location, and viewing sensor data, offering a seamless and efficient user experience.



Agile Management Details (Epic 2 based on Deliverable 2 requirements, but may be modified later):

Theme 1: User Interface Development:

Epic 1: Initial App Setup

Story 1: Creating an Initial App Build

- Task 1: Prepare GitHub: Add Gitignore and README.md.
- Task 2: Create empty layouts for the distance sensor, proximity sensor, balance sensor, and motor sensor screens.
- Task 3: Add support for English and French languages.

Story 2: Implement Navigation Drawer and Screen Design

- Task 1: Integrate a navigation drawer into the app layout.
- Task 2: Define and structure navigation menu items.
- Task 3: Ensure smooth opening and closing of the drawer.

Story 3: Splash Screen and Loading Animation

- Task 1: Design and implement a splash screen with the app logo.
- Task 2: Add a description of the app to the screen.
- Task 3: Implement a delay to display the splash screen briefly and transition to the main screen.

Epic 2: User Interface Design and App Structure

Story 1: Design All App Screens

- Task 1: Create high-fidelity designs for the main screen, including images and various backgrounds.
- Task 2: Design the user profile screen with user details, including the option to change a profile image.



- Task 3: Develop a detailed design for the order history screen.
- Task 4: Create visual designs for the app's settings components.

Story 2: Multilingual Support

- Task 1: Integrate multilingual support for English and French.
- Task 2: Translate all screen content, including labels and messages.
- Task 3: Implement language switching functionality within the app.
- Task 4: Ensure content adapts to the selected language seamlessly.

Story 3: Menu Implementation

- Task 1: Design a menu bar with at least four options (e.g., always, ifRoom, or never).
- Task 2: Assign appropriate images to menu items displayed on the menu bar.
- Task 3: Set one menu item to always display with both image and text.
- Task 4: Ensure menu options respond correctly to user interactions.

Story 4: Responsive Layouts and Orientation Handling

- Task 1: Implement responsive layouts for various screen sizes and orientations.
- Task 2: Design screen elements to adapt to different device resolutions.
- Task 3: Implement screen orientation lock functionality.
- Task 4: Ensure seamless transition between landscape and portrait layouts.

CENG-322 TEAM PROJECT

Team Name: Hermes Logistics

Team Number: Group 1

Project Name: PetasosExpress

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.

For further information read Academic Honesty Policy on

<https://humber.ca/legal-and-risk-management/policies/search-by-students.html>.

Team Member Names (Please Print)	Signatures	Student ID
Project Leader: Illia M. Popov	<i>IlliaPopov</i>	N01421791
Ahmad Aljawish	<i>AhmadALjawish</i>	N01375348
Dylan Ashton	<i>DylanAshton</i>	N01442206
William Margalik	<i>WilliamMargalik</i>	N01479878

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

acknowledge having

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	I.P. A.A D.A W.M.	a) Team absorbs workload temporarily ____ b) Other:
Team member cannot deliver component on time due to lack of ability	I.P. A.A D.A W.M.	a) Team reassigns component ____ b) Team helps member ____ c) Team "fires" team member by not permitting his/her name on submission ____ d) Other:
Team member does not deliver component on time due to lack of effort	I.P. A.A D.A W.M.	a) Team absorbs workload ____ b) Team "fires" team member by not permitting his/her name on submission ____

Scenario	Accepted initials	We agree to do the following
		c) Other:
Team member does not attend team meeting	I.P. A.A D.A W.M.	a) Team proceeds without him/her and will assign work to the absent member ____ b) Team doesn't proceed and records team member's absence ____ c) Team proceeds for that meeting but "fires" member after ____ occurrences ____
An unforeseen constraint occurs after the deliverable has been allocated and scheduled (a surprise test or assignment)	I.P. A.A D.A W.M.	a) Team meets and reschedules deliverable ____ b) Team will cope with constraint ____ c) Other:
Team cannot achieve consensus leaving one member feeling "railroaded", "ignored", or "frustrated"	A.A I.P. D.A W.M.	a) Team agrees to abide by majority vote ____ b) Team flips coin ____

Scenario	Accepted initials	We agree to do the following
with a decision which affects all parties		c) Other:
Team members do not share expectations for grade desired	I.P. D.A W.M. A.A	<p>a) Team will elect one person as "standards-bearer" who has the right to ask that work be redone ____</p> <p>b) Team votes on each submission's quality ____</p> <p>c) Team will ask for individual marking and will identify sections by author ____</p> <p>d) Other:</p>
Team member behaves in an unprofessional manner by being rude or uncooperative	I.P. W.M D.A. A.A	<p>a) Team attempts to resolve the issue by airing the problem at team meeting ____</p> <p>b) Team ignores behaviour ____</p> <p>c) Team agrees to avoid use of all vocabulary inappropriate to the business setting ____</p> <p>d) Team fires the team member.</p>
Team member assumes or requests that his/her name be signed to a submission but has not participated in production of the deliverable	I.P. W.M. D.A A.A	<p>a) Team agrees that this is cheating and is unethical ____</p> <p>b) Friends are friends and should help each other ____</p>

Scenario	Accepted initials	We agree to do the following
		c) That person name will not be put on the submission.__
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	I.P. W.M. D.A A.A	a) Team will actively solicit consensus on all decisions that affect project direction by asking for each member's decision and vote — b) Team will express subordination feelings and attempt to resolve issue ____ c) Other:
Team has a member who refuses to participate in decision making but complains to others that s/he wasn't consulted	I.P. W.M. D.A A.A	a) Team forces decision sharing by routinely voting on all issues ____ b) Team routinely checks with each other about perceived roles ____ c) Team discusses the matter at team meeting ____