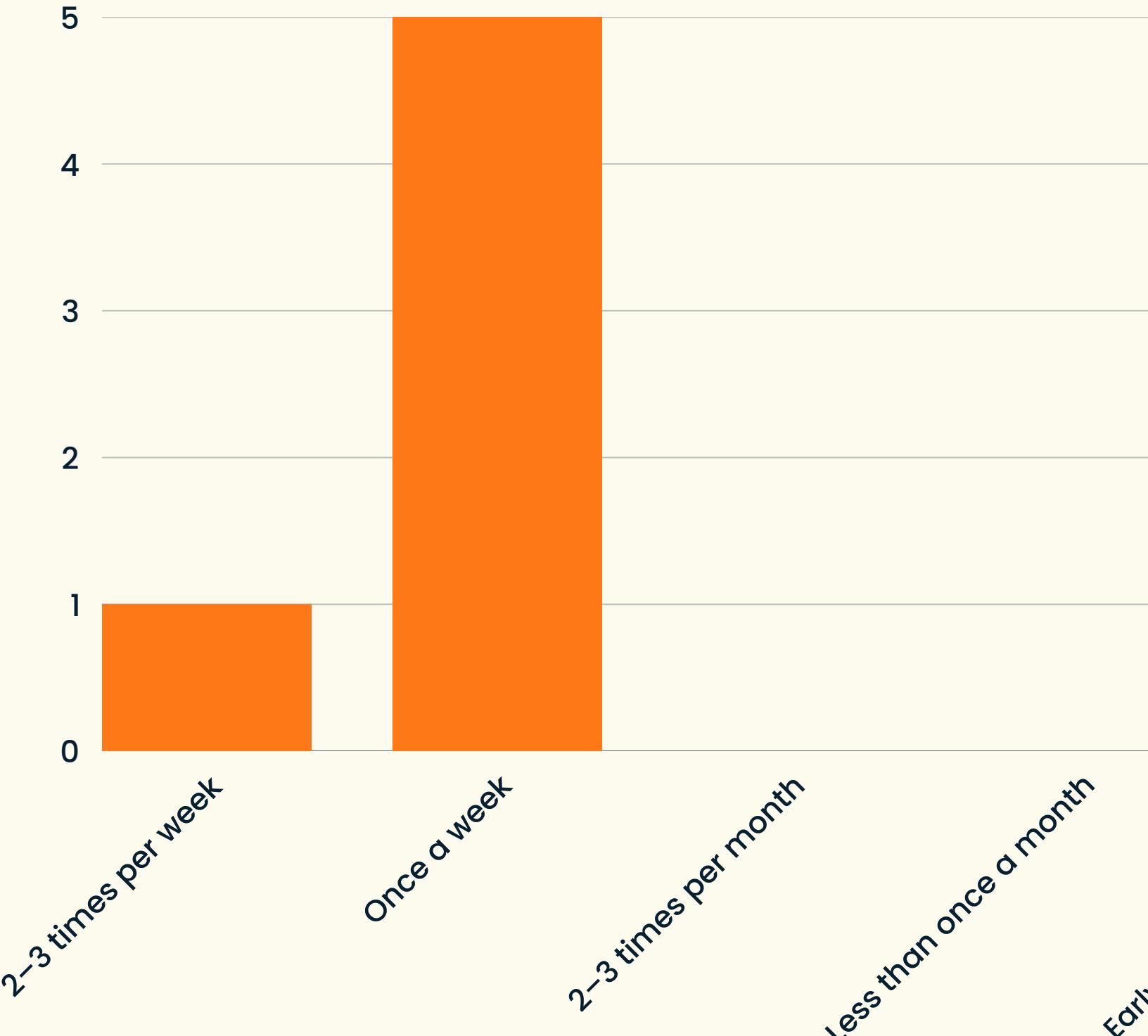


Laundry Management System

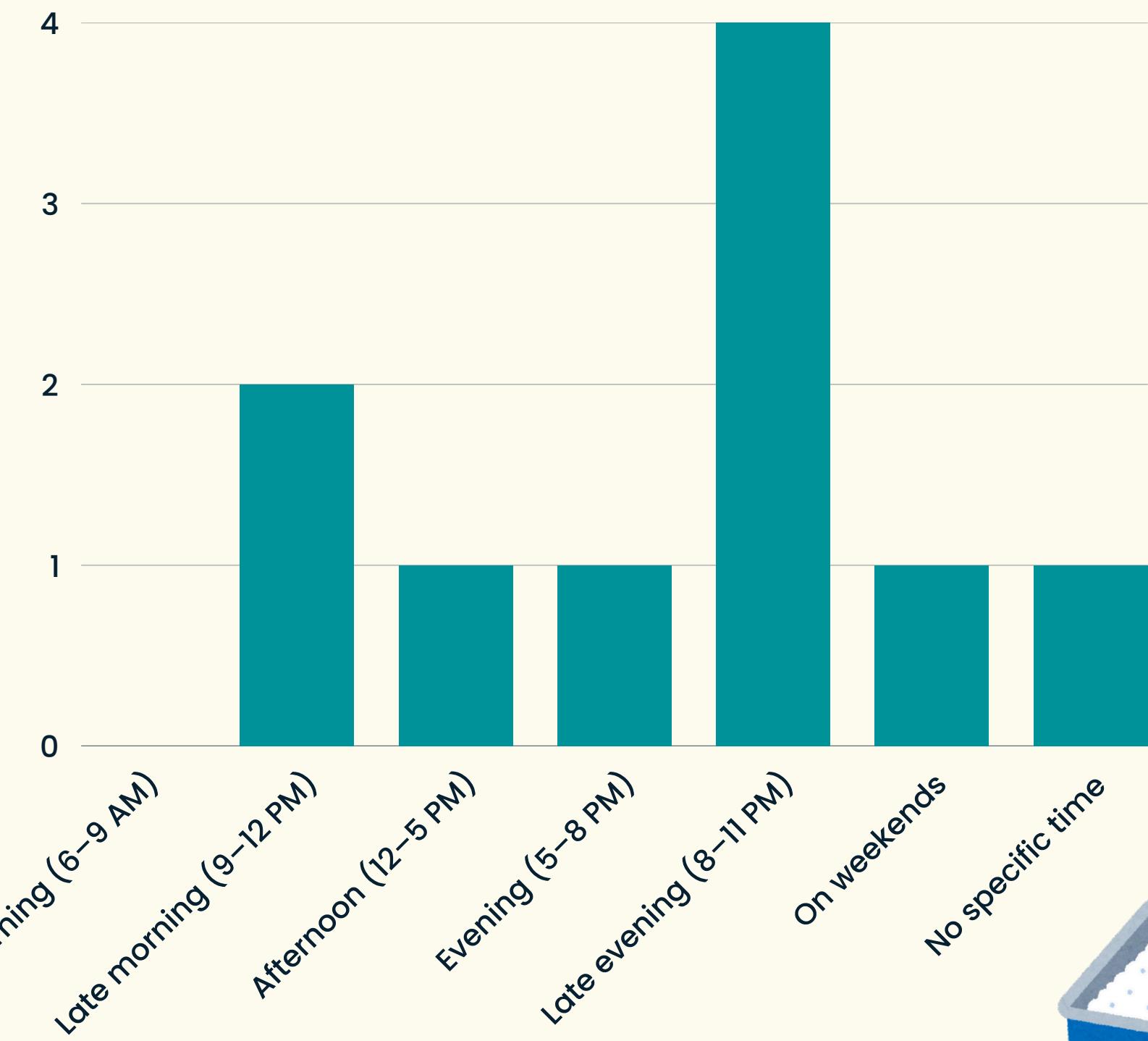


Laundry Activities from our Dorm

How often do you use shared laundry facilities?

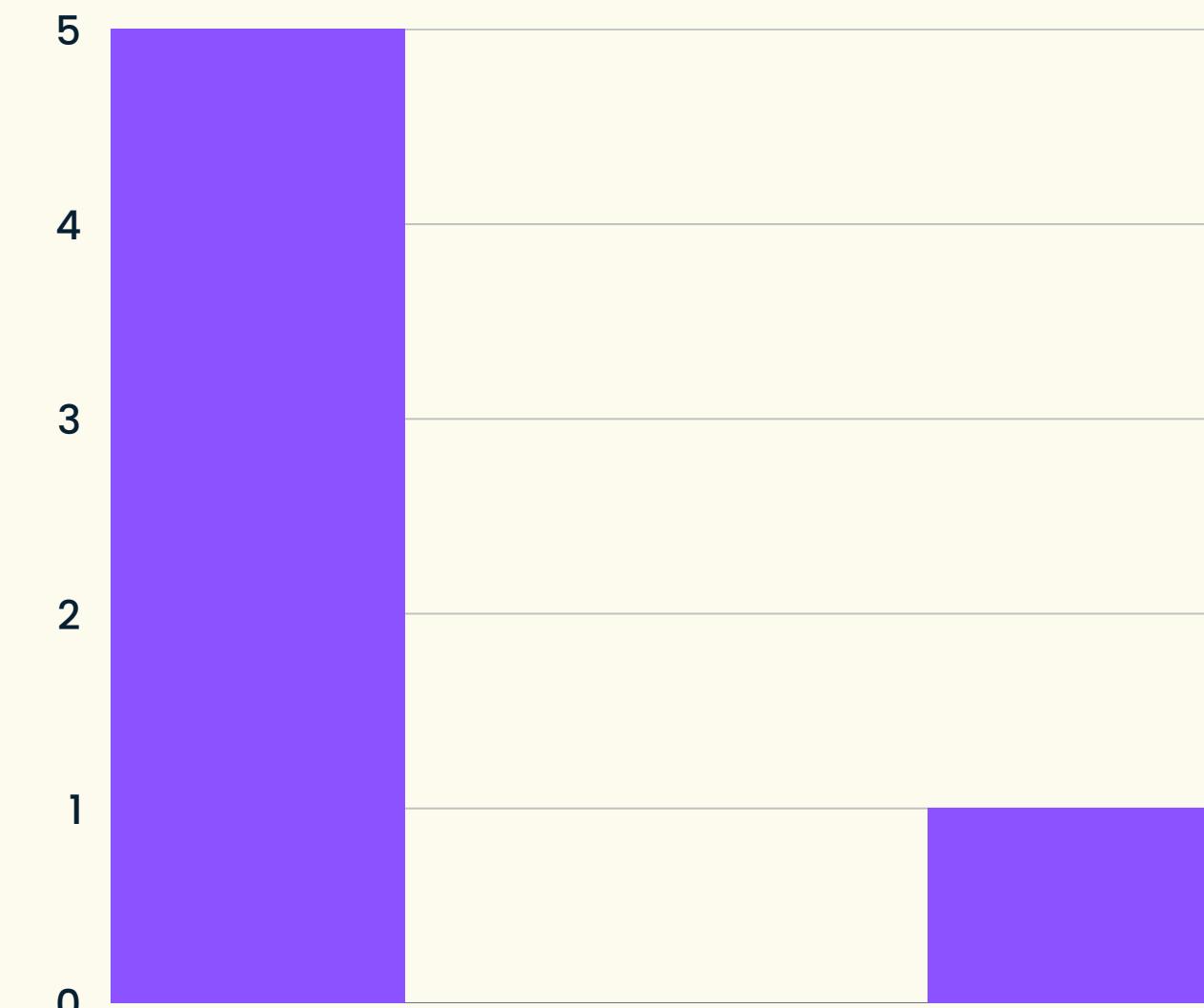


What times do you typically do laundry?
(Select all that apply)

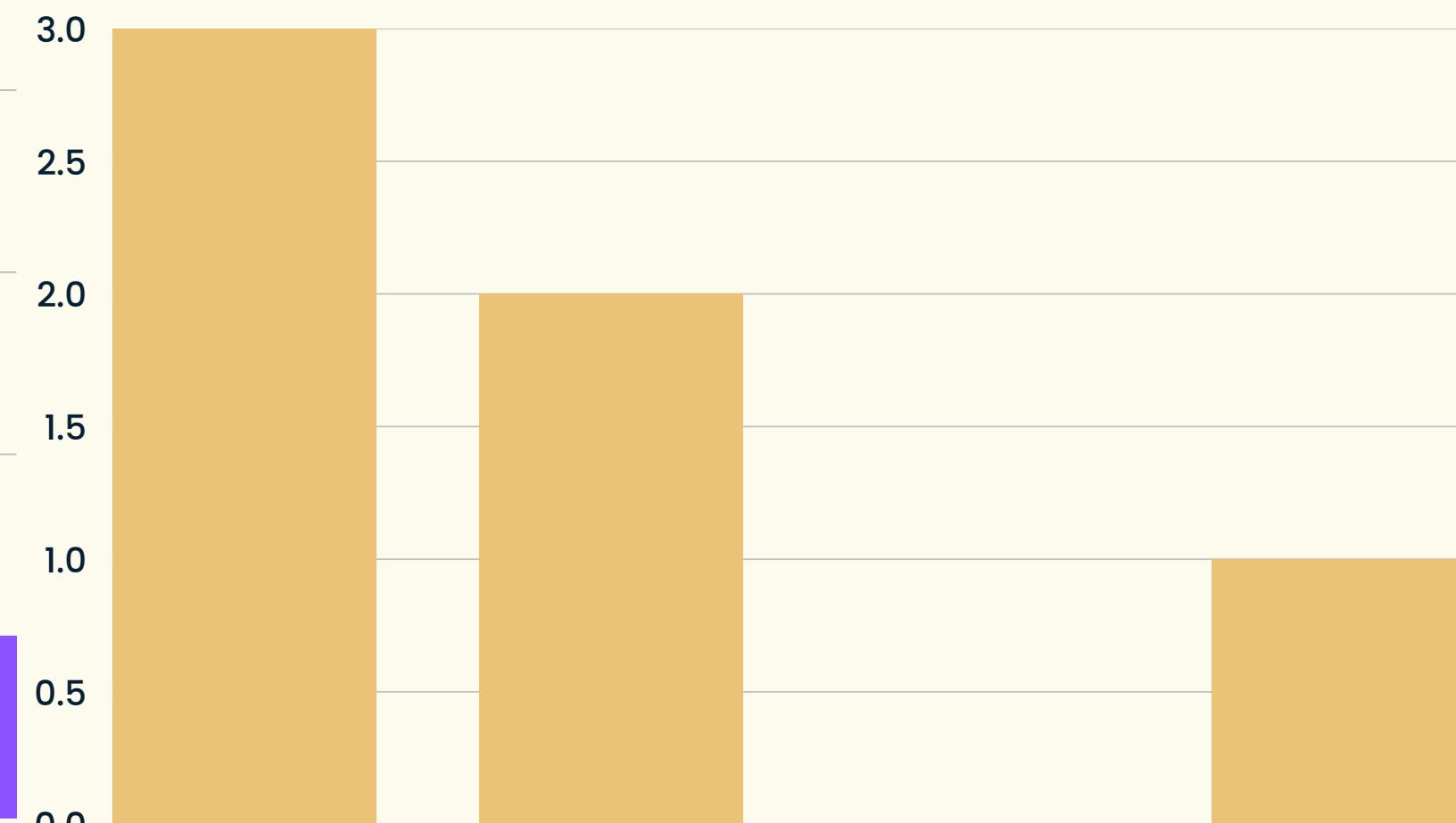


Laundry Activities from our Dorm

How do you currently know if machines are available?



What dissatisfied you the most when doing your laundry in a public space?



Problem Statement

- We don't know how many washing machines are available and have to walk to go and check
- Sometimes we forget to pick up our laundry after it's finished. This can inconvenience other people who need to use the machine.



Feasibility Study / Competitor Study

Pickup-and-delivery services available in Thailand

1. Wonder Wash

- Wonder Wash is a laundromat franchise that applies IoT (Internet of Things) technology to manage operations.
- Investors can earn income every day, 24/7.

Main features:

- Accepts multiple payment methods: coins, banknotes, and QR code via mobile.
- Time-based discounts
- Loyalty points system using phone numbers
- Check the status of washing/drying machines at each branch
- SMS notifications when laundry is done

2. Mr. Jeff

- Mr. Jeff is a laundry and dry-cleaning franchise that launched in Thailand in early July 2019.

Main features:

- Offers both one-time and subscription-based laundry services
- Payments accepted via credit card or cash





Competitor Study(Abroad)

3. Washcoin

Main features

- Uses high-tech washing machines with warm water systems that:
- Dissolve the detergent more effectively
- Protect fabric fibers
- Kill certain bacteria and germs
- Pricing is based on actual usage time



Feasibility Study

Scope:

We are aiming create a website that use Student ID to login to solve these laundry problems

Stakeholders involved

End user(students in MFU):

- Can book washing machines
- View booking status,
- Check the queue.

Dormitory Manager

- Can manage washing machines and update their status

Maintanence Technician

- Solve any problem concerning the washing machine and the website





Feasibility Study

Why School Dormitories Need a Smart Laundry System

- 1. High Competition for Limited Machines
- 2. Students waste time checking availability or waiting around, hoping a machine will free up.
- 3. Forgotten Laundry Causes Conflicts Students often forget their laundry causing disputes in dorms
- 4. Maintenance Response When machines break, it currently takes days for facilities to notice and repair them. Automatic alerts ensure faster fixes, meaning students aren't stuck with even fewer working machines.



Elicitation (Techniques used, Quantitative Data/Qualitative)

Interview Script FOR STAKEHOLDERS

Questions:

- 1.How many laundry machines do you currently oversee, and what types are they?
- 2.What is your budget range for implementing a smart laundry management system through app?
- 3.What features are absolutely essential to have in the system?
- 4.What features need to be implemented for a smoother maintenance service in the long run?
- 5.What are the estimated maximum users that are allowed to use the service concurrently?

Questionnaire

https://docs.google.com/forms/d/e/1FAIpQLScNFatRdQoo_5P_pBP7hwt3eFiErvVQ2Yg-I44IUqf1xNBNA/viewform?fbclid=IwY2xjawNPKoBleHRuA2FlbQIxMABicmlkETF0eDg5SzdmIIIZSzB6YUNRAR4BY39yP7AFkDweXDkutTyacucA_IRfvzv6NXEWoGM7GmvF4Ksk001AUaL9HA_aem_I7TmLRAUwNxQzBz4swUQSQ



Elicitation (Techniques used, Quantitative Data/Qualitative)

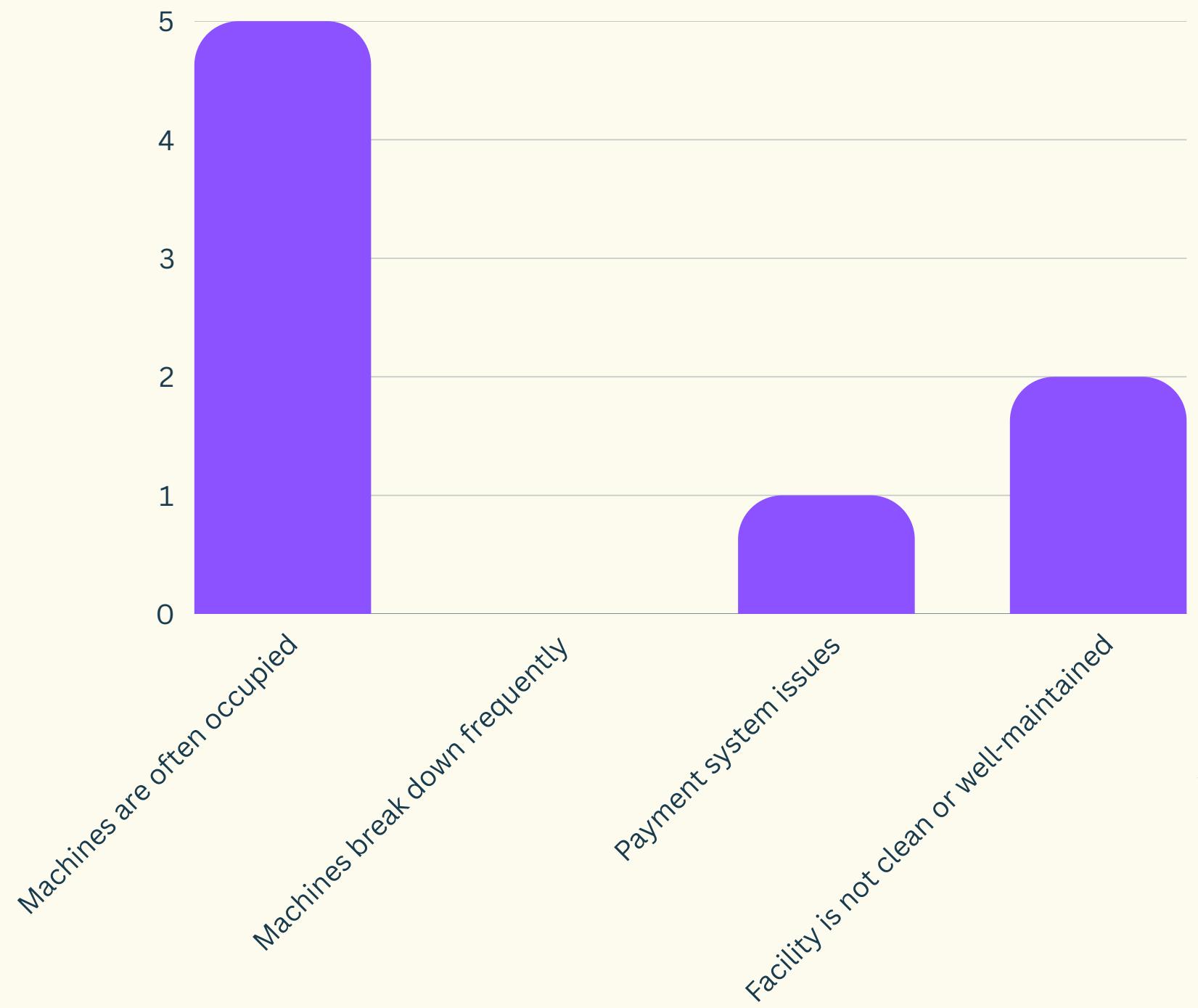
Focus Group

- To get feedback for improving products, services, or ideas.
- To get ideas on which requirements are implementable
- To prevent conflict among the requirements
- To get information and better requirements

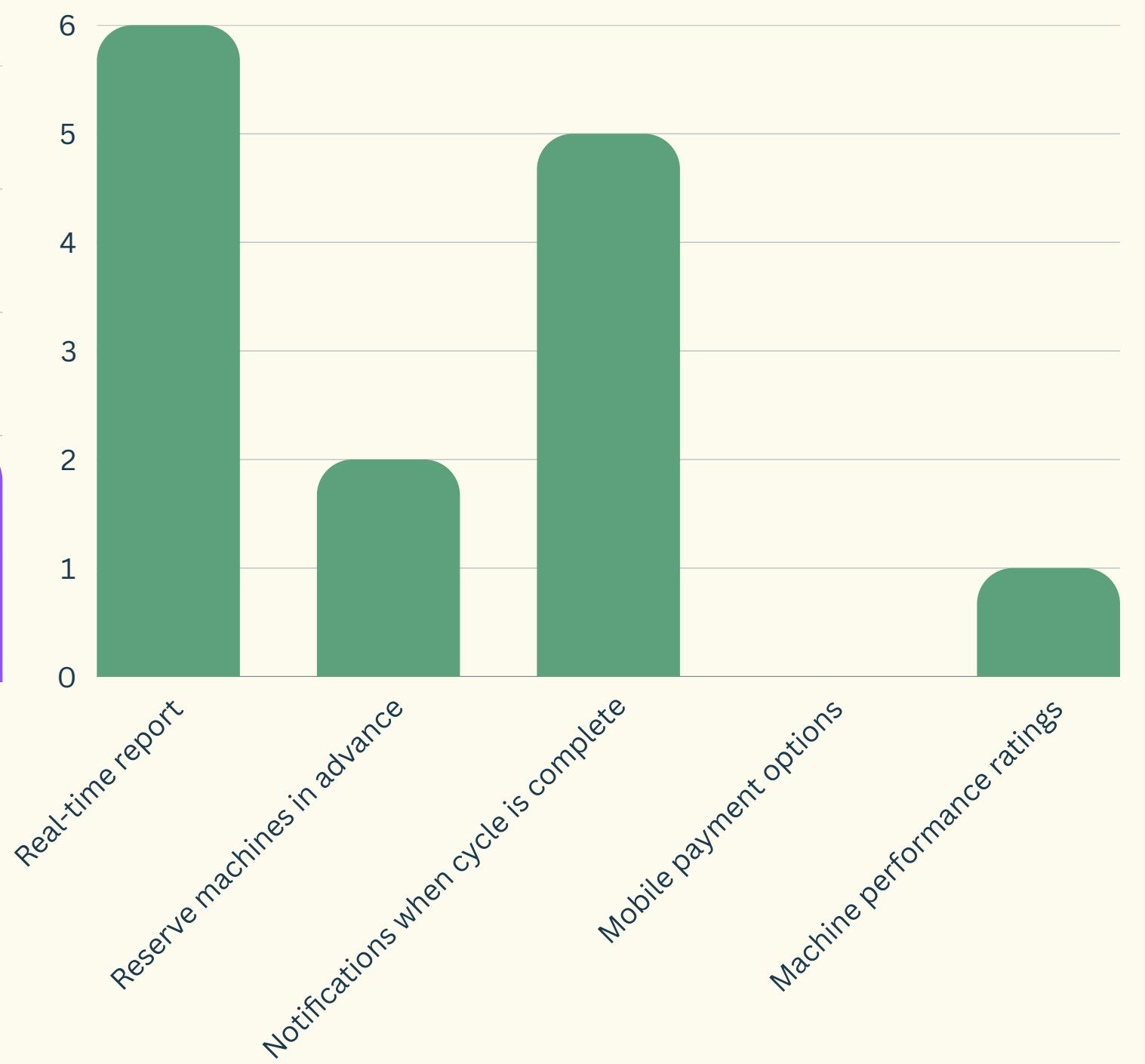


Elicitation RESULT(Quantitative Data)

What are your biggest frustrations with current laundry facilities? (Select all that apply)

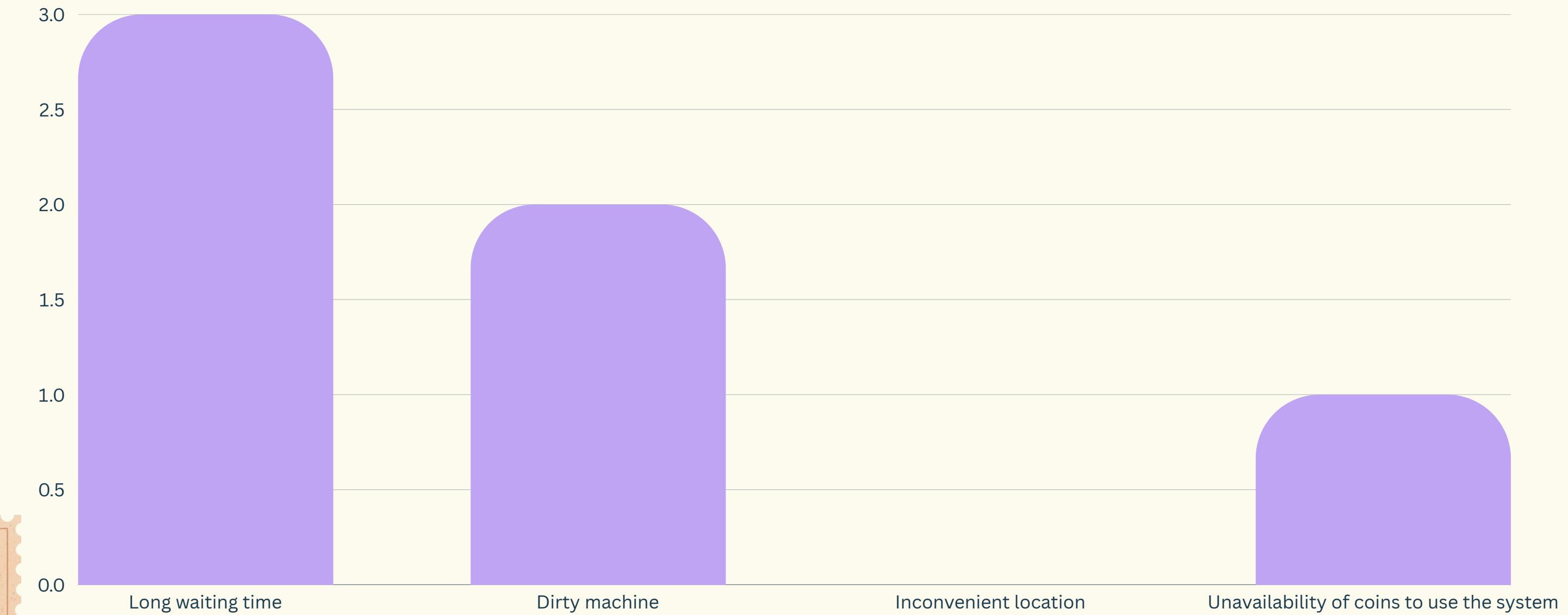


Which mobile app features would be most valuable to you? (Select all that apply)



Elicitation RESULT(Quantitative Data)

What dissatisfied you the most when doing your laundry in a public space?



Requirements

Business Requirement

- The university shall implement a review system to improve student satisfaction and improve the system.
- The university will mostly focus on implementing this system in the MFU Campus only.
- The university shall do regular maintenance ,in addition, to check student reviews and improve upon them.

User Requirement

As a student, I want to see machine reliability ratings so that I can avoid machines that frequently break down.

As a student. I want to receive notifications when cycle is complete or the last cycle is reached

As a student, I want real-time report

As a student, I don't want to waste time checking if the machine is available over and over again



SYSTEM REQUIREMENTS

Functional Requirements

User:

- The website shall verify students using their student ID numbers during the registration process.
- The website shall allow students to check if the machine is available
- The website shall allow students to check the booking status of each machine and see if its full or not

Dormitory Manager

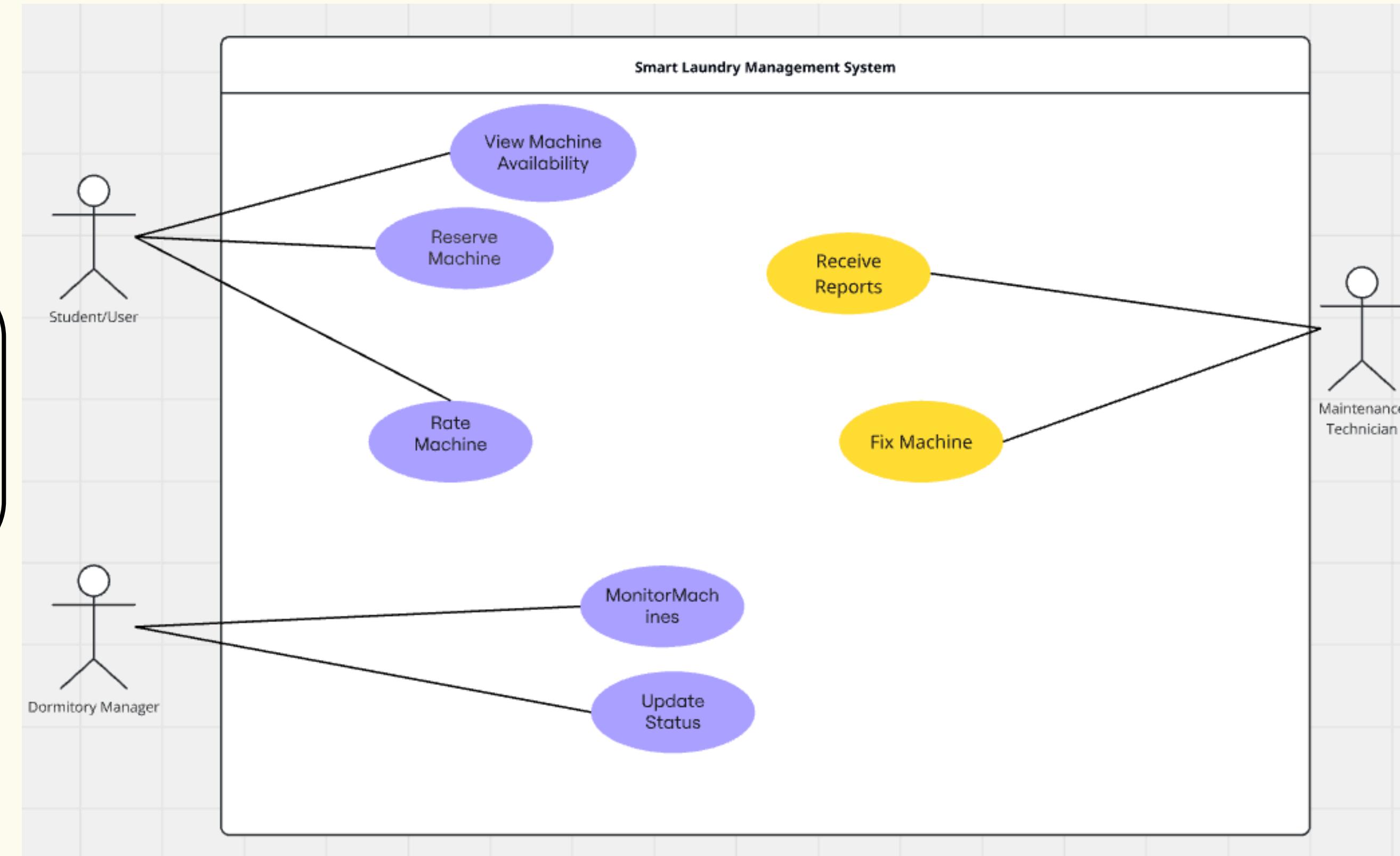
- Can change the status of each machine including delete and update its status
- The dormitory manager is able to edit the queue for example(remove students from the queue)

Non-functional Requirements

- The website shall complete the typical user workflow from login to the end in no more than 10 clicks
- Labels must be clearly named (e.g., “Book,” “Cancel,” “Finish”).
- Users must log in before they can make or cancel a booking.
- All major functions should be clearly separated (Login, Booking, Manager Panel) for ease of usage

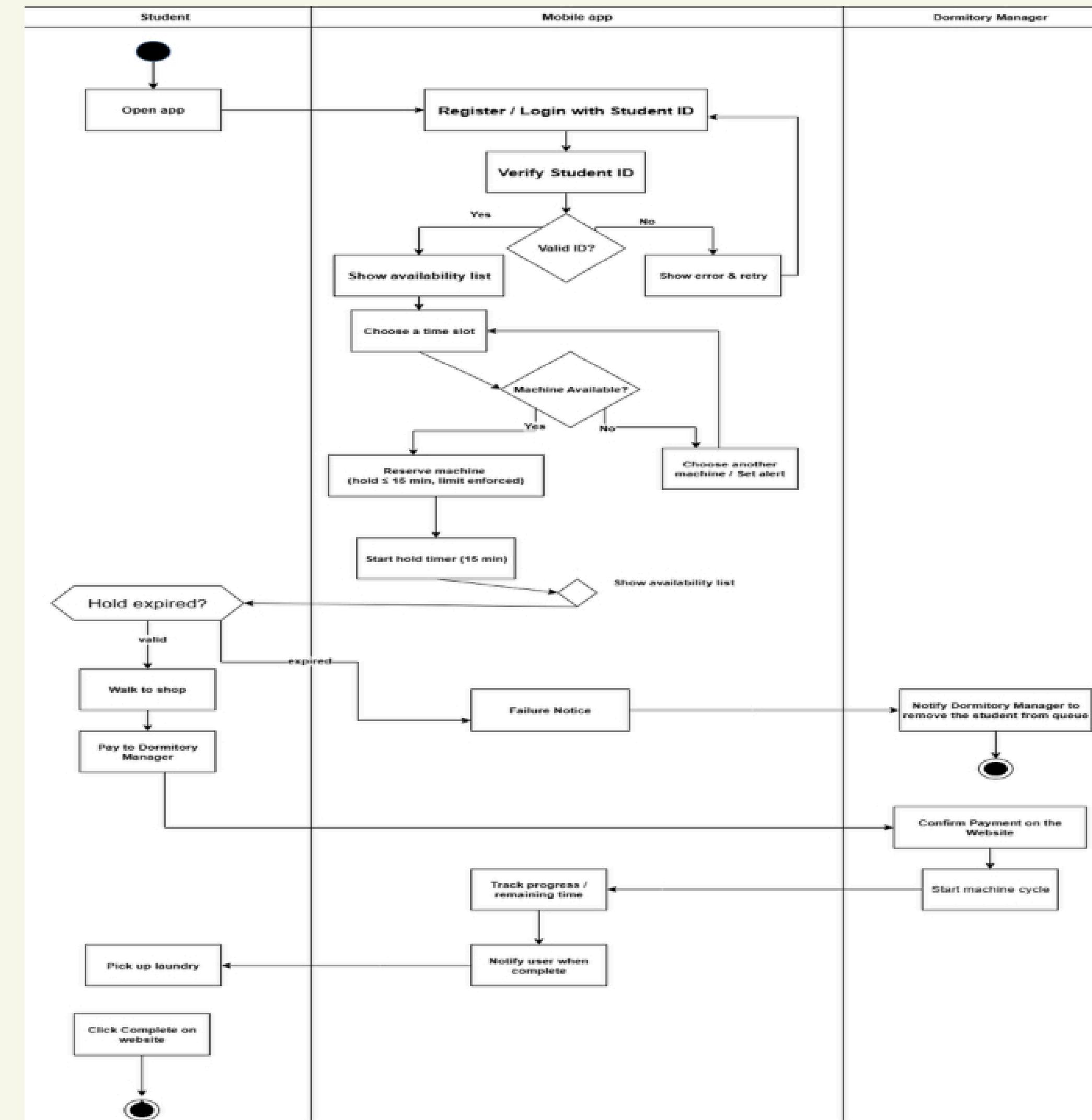
UML Diagram(Use Case)

Website Key Feature
Can book washing machines
View booking status
Check the queue.



Activity Diagram (End User)

https://drive.google.com/file/d/1wKkl_NcxteA8NpA-wGvEu2ZUzSwD4I5N/view?usp=sharing



THANK YOU

Members:

1. Kanthi Phoosorn 6731503004
- 2.Yosnawat Onjan 6731503029
- 3.Kazunori Kanazawa 6731503005
- 4.Wacharaphong Sutthiboriban 6731503032
- 5.Sirawit Jaisamak 6731503124
- 6.Watthana Jaiwanna 6731503034

Survey Response

https://docs.google.com/spreadsheets/d/1T3Lv6koAoyULT0ffdbzGLZw2VsyeXKb2_IJOhnveHI/edit?gid=938252528#gid=938252528