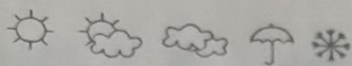


Logbook

CYSF 24-25

Fariza & Amal

★ Package Patrol! ★



Date Oct / 30 / 2024

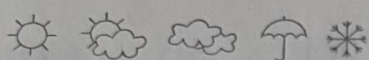
* Watched Glitter Bomb 1.0 vs Porch Pirates
by Mark Rober

* came up with the idea for a sf
We concluded from the video that porch
pirates are really common and we need
an issue for this problem.

We did some research and found that
12 million packages were stolen by porch
pirates.

• 58 million Americans became victims of this
case

• 9/10 Americans are worried for their
package getting stolen.



Date Feb / 5 / 2025

Filling out the CYSF from

Project type: Innovation

Project category: Mathematics + Computer Science

Project topics: Consumer Science, Consumer Goods, Engineering and Technology

Finished Brief description.

Feb 7.

Project approved for Ethics / Safety

Wrote our problem

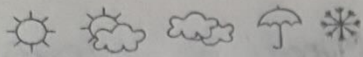
Wrote our methods - plan to add stuff throughout the project.

Added Analysis (research)

Feb 8.-9

We both researched more

- Thought of app ideas
- Discussed what to do for the box.

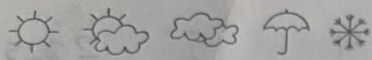


Date March / 5 / 2025

Noticed Amazon had a high percentage for porch piracy theft.

- Noticed Amazon may send a photo for proof and sometimes ask for a signature.

We concluded that if you aren't home, porch pirates are still nearby and can be able to steal the package due to it being unattended.



Date March / 6 / 2025

Planning to make an app & Package Patrol

- Box is always open until it senses a package. When the box then it closes like a garage.
- A notification/email gets sent to the owner where they can generate a code to open the box.
- Box will give 10 seconds for delivery driver to place the package in the opened box.

App

Box and App connect to the same wifi (only for the first time)

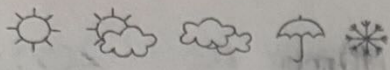
1 - 4 different buttons to press once you open the app

↳ Passcode - generate new password everytime (to unlock the box)

↳ connect to the box → by the wifi (first time only)

↳ Box status → loaded/unlocked

↳ history → when a box was sensed and load etc.



Date March/ 7 /2025

Creating the app

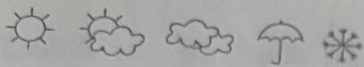
- studio.code.org

Watching all the lessons to learn

Finished 15 levels!

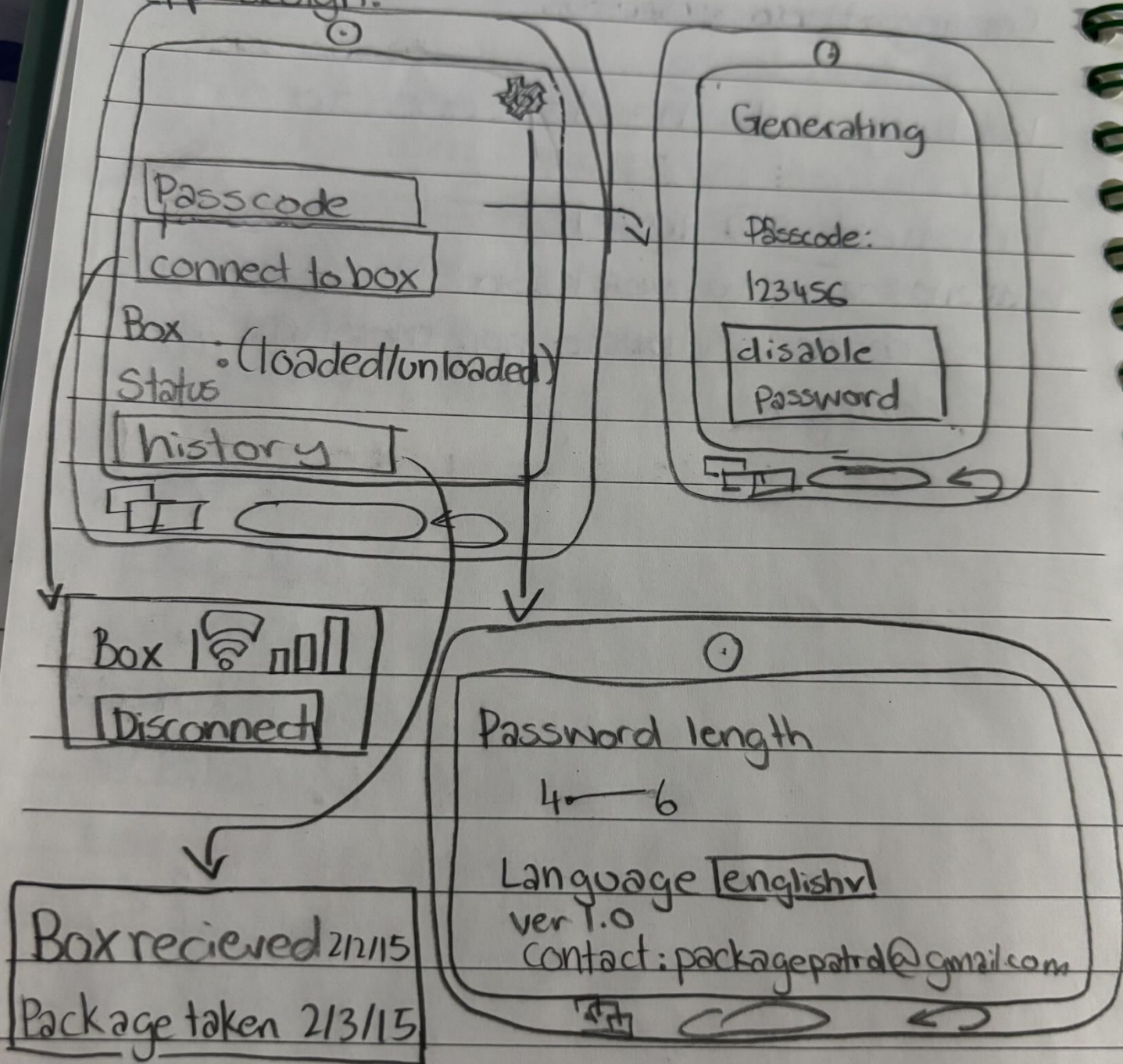
will be able to work on the app now

- create a basic app (not final app design).

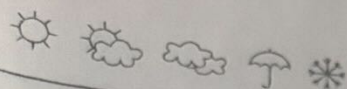


Date March/ 10 / 2025

App design:



2025



Date March / 11 / 2025

Adding more info (research)

- Porch Pirates often steal smaller packages, they hope that small packages will contain more expensive items that can be resold like phones, video game systems, sound system or computer parts.
- Highest rate of porch piracy was in 2020.

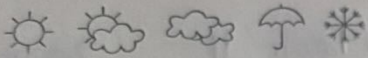
Porch Pirates are commonly active during 6am to 6pm

75% reported in 2017 was during the day.

Police have only been able to make 10% of arrests for reported cases.

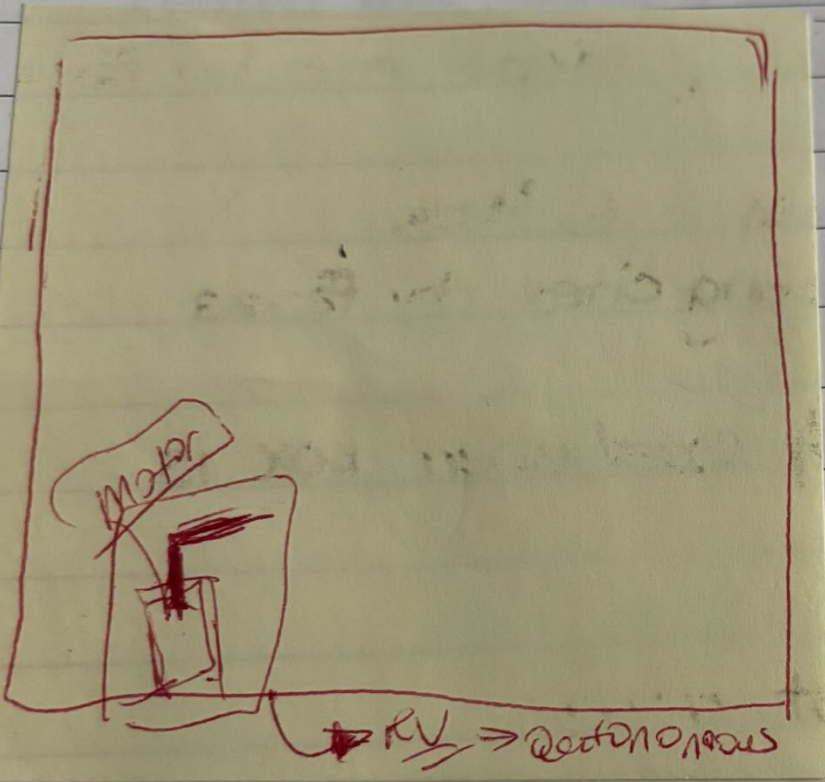
Update on the app.

- Amal finished the main page
 - she also was able to generate password by code
- Finished screen 4 (status) and 5 (history).

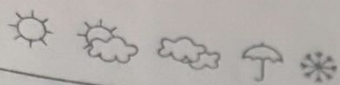


Date / /

- Average cost is \$156 = 5.4 billion in stolen goods.



Prototype



Wednesday

Date March / 12 / 2025

App is almost done

* Amal needs to finish status, history and settings

More research is getting done by Fariza

Status finished by Amal (design)

Websites are getting cited by Fariza

Status will be fully coded when box is complete.

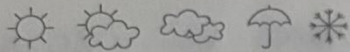
History is almost done.

Logo design

- Plan to use on our app
- ~~May~~ May be added on the box
- The logo will be the project image and as well, it will be used on the header image.

Current ideas:

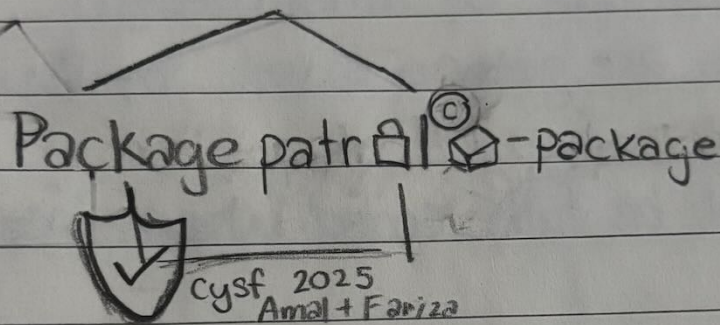
- Use neutral colors like brown, white, black and beige.
- Add a cardboard box



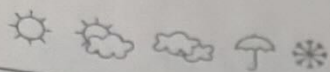
Date / /

- Add our name + Package Patrol
- Add a lock
- Home

Prototype 1



↑
final design for now



Date March / 13 / 2025

Working on Acknowledgement and add more research.

Amal is working on the settings

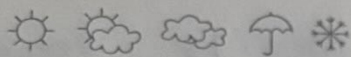
- Adding maximum of 4-6 password
- Language
- Contact
- description of who we are.

Add more to the problem.

Engineering process (for methods)

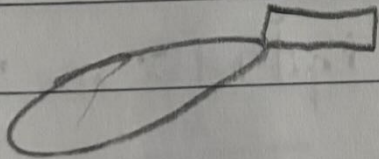
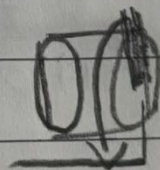
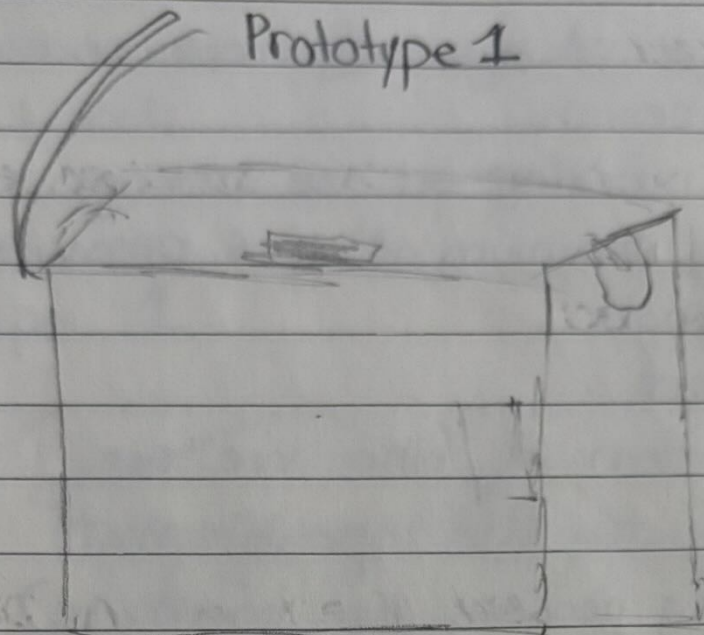
31	1		
33.2	90.6		
18.3	3.7	8.14	
	<u>94.3%</u>	94.3%	
+ 17.1		- 18.3	
		<u>76.0%</u>	
15.1	1		
6.9	33.20	15.10	3.70
<u>90.6%</u>	+ 3.66	+ 3.66	3.66
223	37.26%	18.76%	7.36%
37.26			
+ 18.76	1		
	24 17.10	6.90	
	+ 3.66	+ 3.66	
20.76	30 20.76%	10.56%	
10.56			
7.36			
<u>94.70</u>			

• Finished logo design

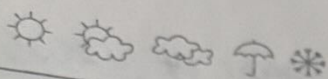


Date 03/14/25

Prototype 1



- Working on engineering plan
- Research
- More citations



Date March / 15 / 2025

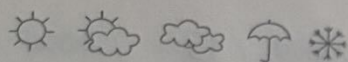
Logo planning

- Brown
- House with the project name
- Package patrol.
- Cardboard box
- Safety check mark
- Lastly our names, and CYSF 24-25

Logo finished and working on banner

Banner will include

- Phone to symbolize that it will be used for the app.
- Wifi signal for connecting the box (app)
- Add our moto "Your Packages, Our Priority"



Date March / 17 / 2025

3D print designs

° Locking mechanism and latch and hook for also locking.

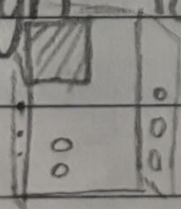
Prototype one for locking mechanism

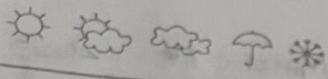


ended up being too small.

Plan to 3D print tomorrow our design today

next design idea





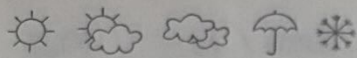
Date March / 18 / 2025

The 2nd prototype was perfect sizing and the motors fit.

- It didn't align the holes with the motors so we made another design but the holes were more up.

Tested out with motor and added it on the box.

We added the latch and hook on the box and luckily it worked great in the first design.



Date March / 19 / 2025

Added engineering process to methods

Add phases

- App
- Building
- Designing
- Planning
- Code
- Material Choice
- Prototype
- Testing
- Refining
- Implementation
- Evaluation

Finished the process and worked on rephrasing the problem.

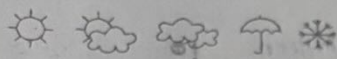
Adding Acknowledgements

• most important people to add

- Ms. Atabayeva

- Noor

- Shayan



- Haniyah

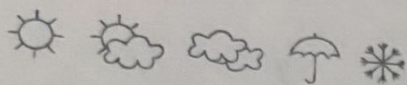
- Mark Rober

And lastly our robotics team (#27931
ALCA robotics)

Finished the Acknowledgement and the
problem.

Adding a Chart made by us of percentage
for certain companies that have the most
pirate ~~on~~ cases.

- Done for the day!



Date March / 21 / 2025

Added last minute research!
along with citations
edited methods (because it was messed
up * only a bit though)

Research was on YCJA

- YCJA

- Laws for theft cases and after to
getting caught protocols

- Items getting sold (based on website)

- Policies

Added 4 citations; 3 forgot and
one new!

Website closed!