

Safar

Lives of in-train hawkers during pandemic

Are we ready for the next wave?
Are our current healthcare and wellness measures sustainable?

Team Changemakers



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Impact of Pandemics



Travelling is the leading cause of virus. Airports are the carriers of covid strains and various infections. Railway stations are more threatening since most journeys are prolonged and heaving. Railway trains become more detrimental due to their limited hygiene and movement.

Pandemic Travel Times

The risks of getting COVID-19 are higher in crowded and inadequately ventilated spaces where infected people spend long periods of time together in close proximity. These environments are where the virus appears to spread by respiratory droplets or aerosols more efficiently, so taking precautions is even more important.

There have been several instances when crowds thronged places like but stops, airports, railway stations and shopping malls a day after major cities relaxed curbs on movement. "Unfortunately, citizens equate the government's response to reopening, as a victory," Dr Vishal Rao, a member of the expert committee on Karnataka's COVID task force said after such situations came up. Even after vaccination drives being conducted all over the country, people need to understand that situation could turn to worst anytime and it's even more important when we are in crowded places.



Design Process

DISCOVER

DEFINE

DESIGN

DELIVER

Problem Identification

Everyday rise in cases of crowds at places providing travel facilities could turn very dangerous in near future with 3rd wave on its verge of hitting us. People consciously or subconsciously sometimes do not follow the rules/precautions that puts them and other people around them in danger of getting infected by this deadly virus.

Problem Statement

Buying and selling of products on trains is very difficult now and has become a subject of high risk when it comes to following the norms and precautions for the covid- situation in our country.



What?

Controlling the movement of vendors inside the trains while providing essential goods like tea, coffee and eatables during the travel.

Who?

This would help the train passengers contain the spread of virus while travelling in the train. The train vendors would prevent contracting and spreading the virus, save energy and conveniently take orders from the passengers and replenish stock when needed

How?

Provide a digital solution- a mobile application- using IOT to facilitate the communication between vendors and the passengers, allow orders and choose preferences seamlessly. We could perhaps introduce a tangible medium for transporting food and beverages.

Personas



Savita

"I earn only enough to buy and cook food for my children. Selling these small products on trains is the only way and now with this situation people hesitate to buy."

- Local Vendor
- Female
- Age: 32
- Poor family background



Rakesh Tiwari

"These covid times has made travelling very difficult. I have to travel from Bangalore to Delhi for work and it's a long journey."

- Passenger
- Male
- Age: 56
- Employee

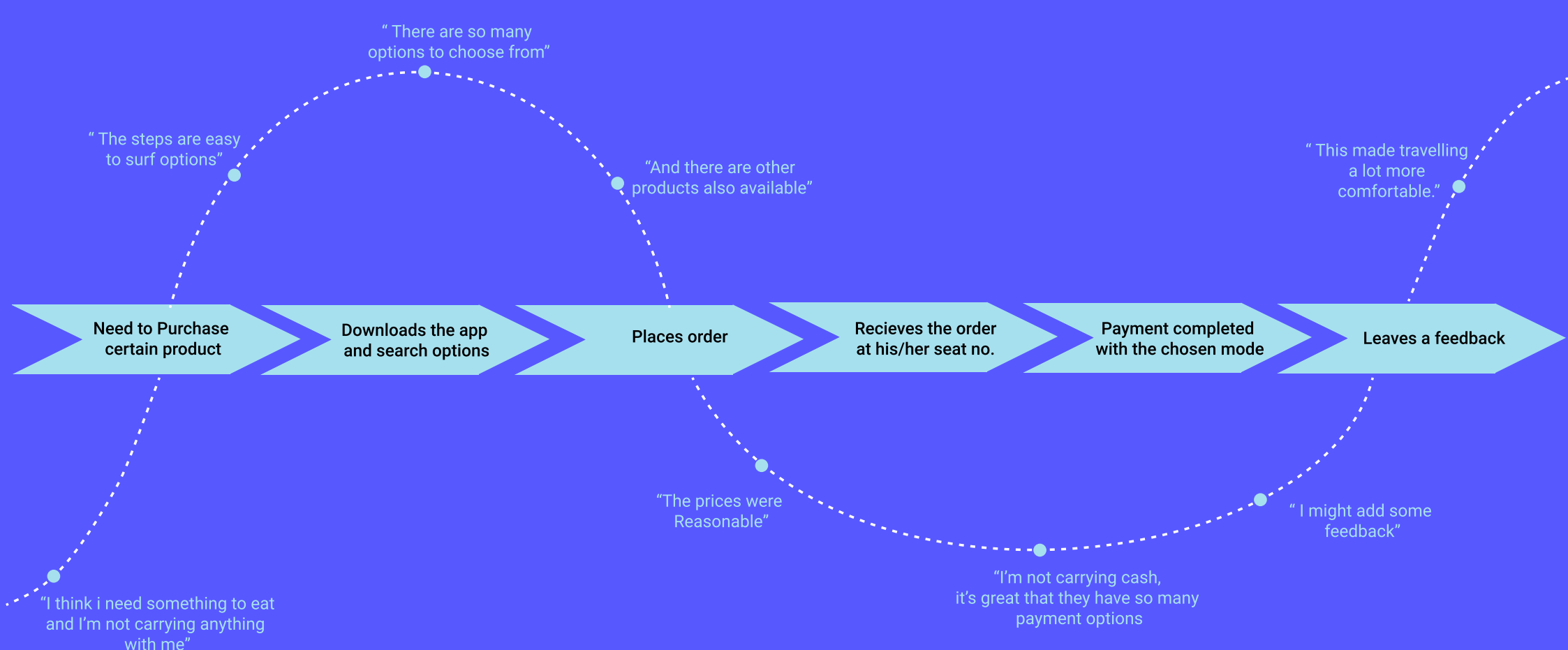


Arun Pandey

"People do not understand the protocol and rules-regulations, they need several warnings even to take care of themselves."

- Security and Safety manger
- Male
- Age: 45
- Police Constable

Customer Journey Mapping



Story Boarding



Introduction - Indian railways



on the railway station there are book and magazine shops



local vendors outside the train carrying food on their own (less amount possible)



there are permanent shops for food and beverages, (passengers have to get down and buy)



there are few vendors that have carts are also there on platforms (Daily setting items and removing)



Shopkeepers with cart sell their products on station and when any train arrives, deliver the products through the window (can't for AC compartments)



Passengers travelling in AC compartments either carry their food or buy before getting in



There are some trains wherein IRCTC men are available that take rounds to see food items (sometimes they just take rounds unnecessarily)



continuous rounds increase risk of coming in contact of germs and viruses, time and energy wastage, risk of person to person contact infection increases, temperature and freshness of food decreases.



they even take orders prior to every meal



Cash payment method is mostly used

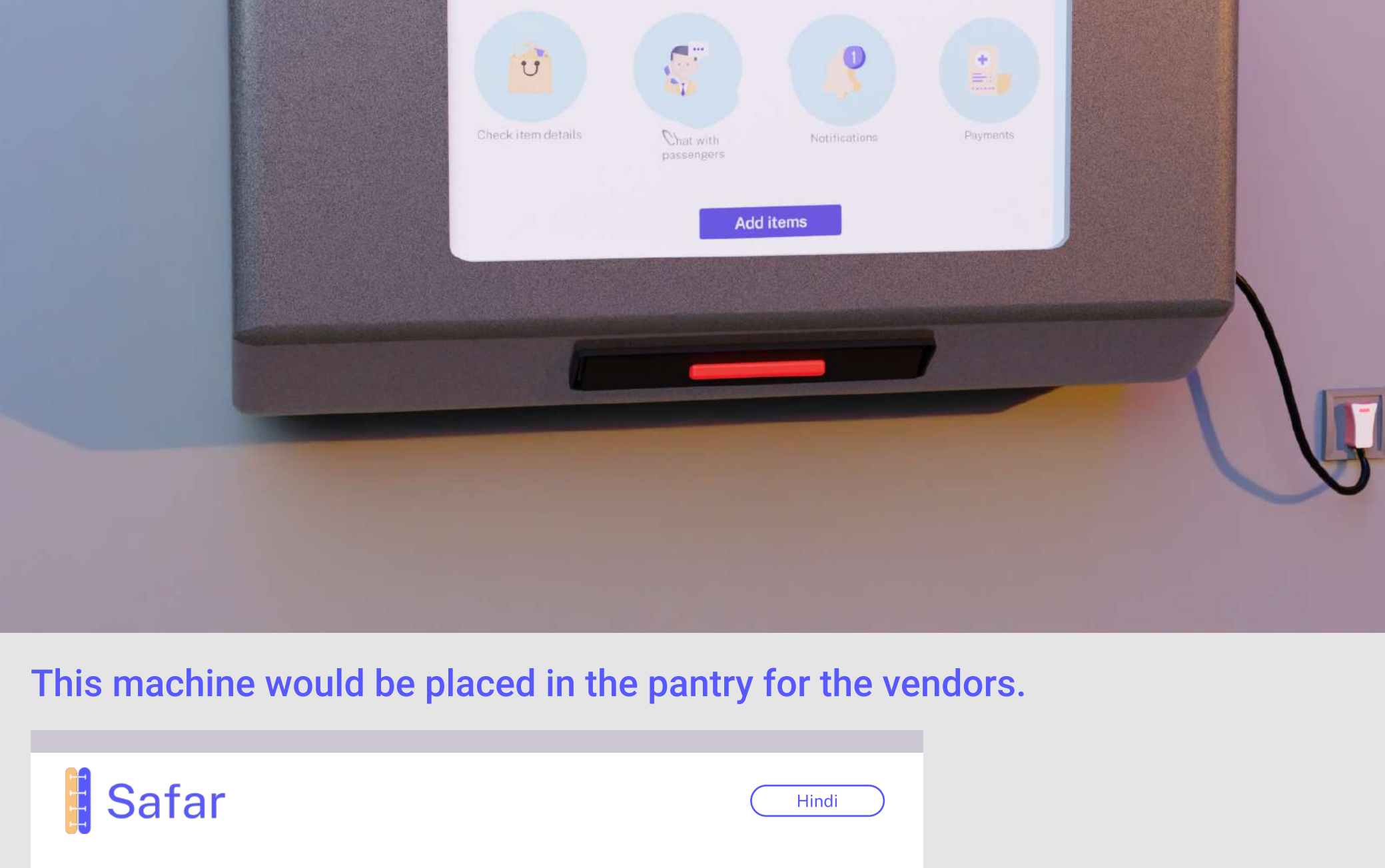


there are few issues with them roaming around- they cross each other sometimes and the space comparatively narrow for them to walk across; they move towards the seat areas to pass; (no distancing)

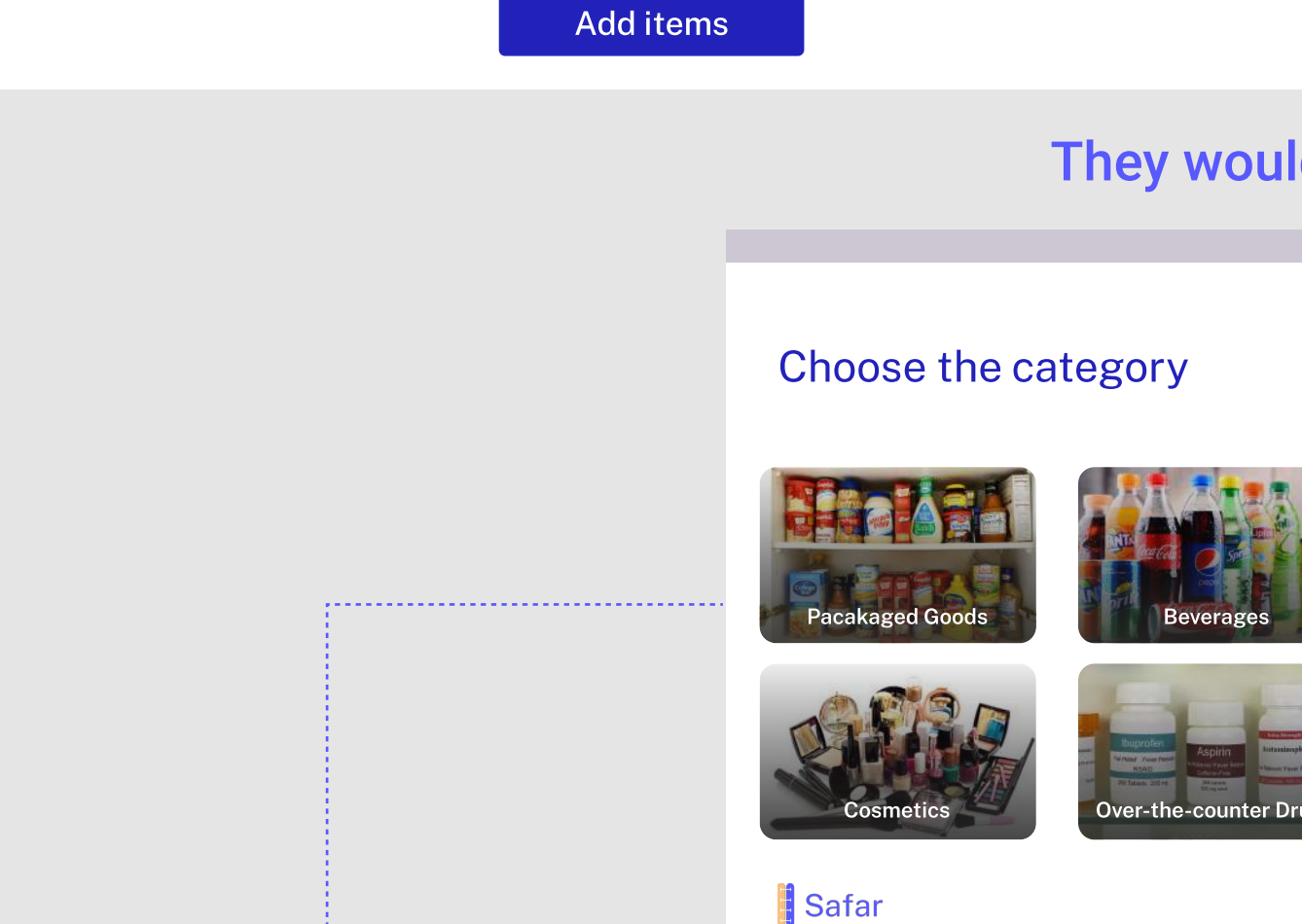
Final Solution & Innovation

System functioning process

- 1 Vendors would bring their goods inside the train pantry.
- 2 They would scan their good in the machine.
- 3 The order will be confirmed and displayed on passengers' mobile application.
- 4 Passengers would select items and add to cart from the mobile application.
- 5 Vendors would receive the order and confirm for delivery.

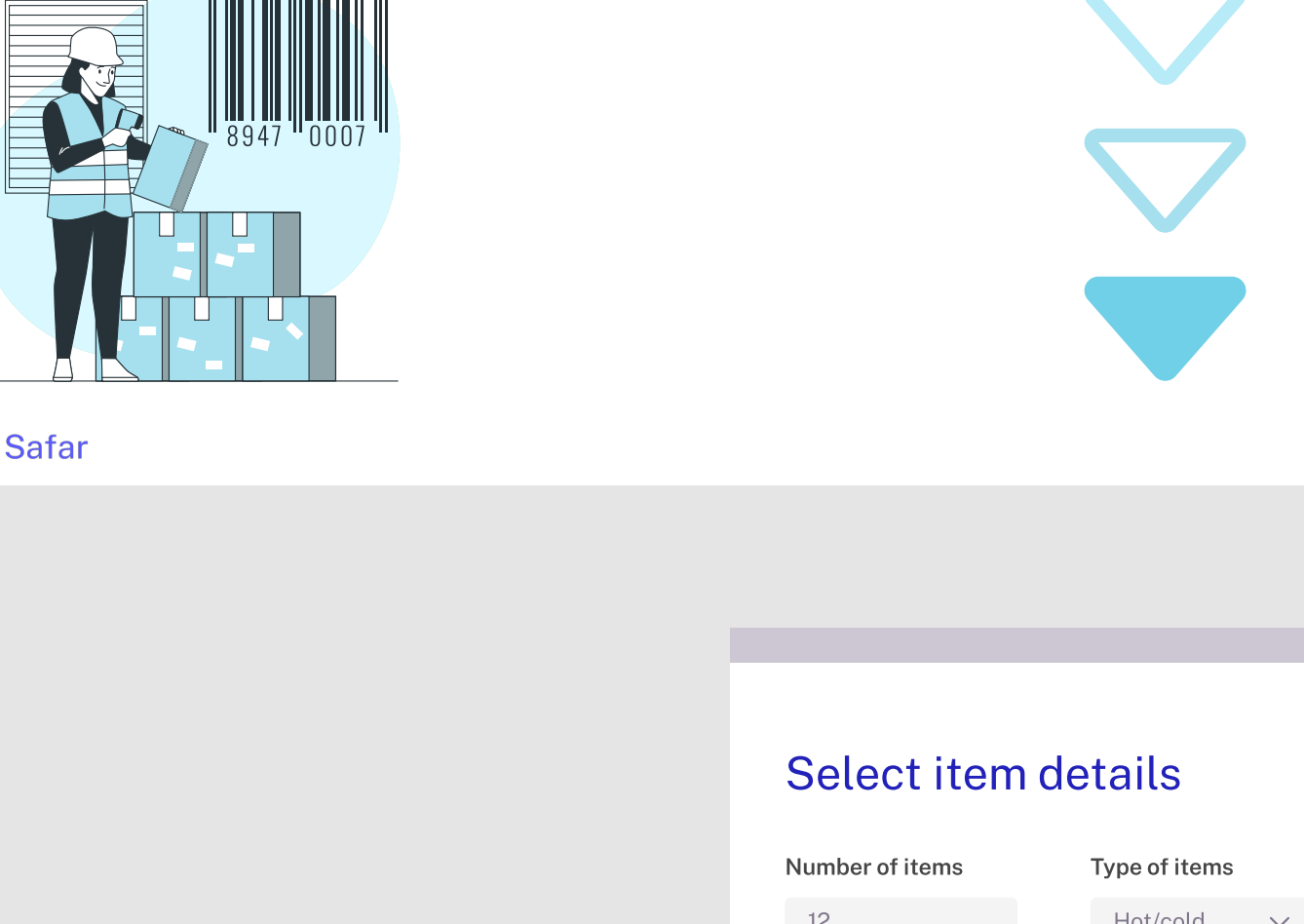


This machine would be placed in the pantry for the vendors.

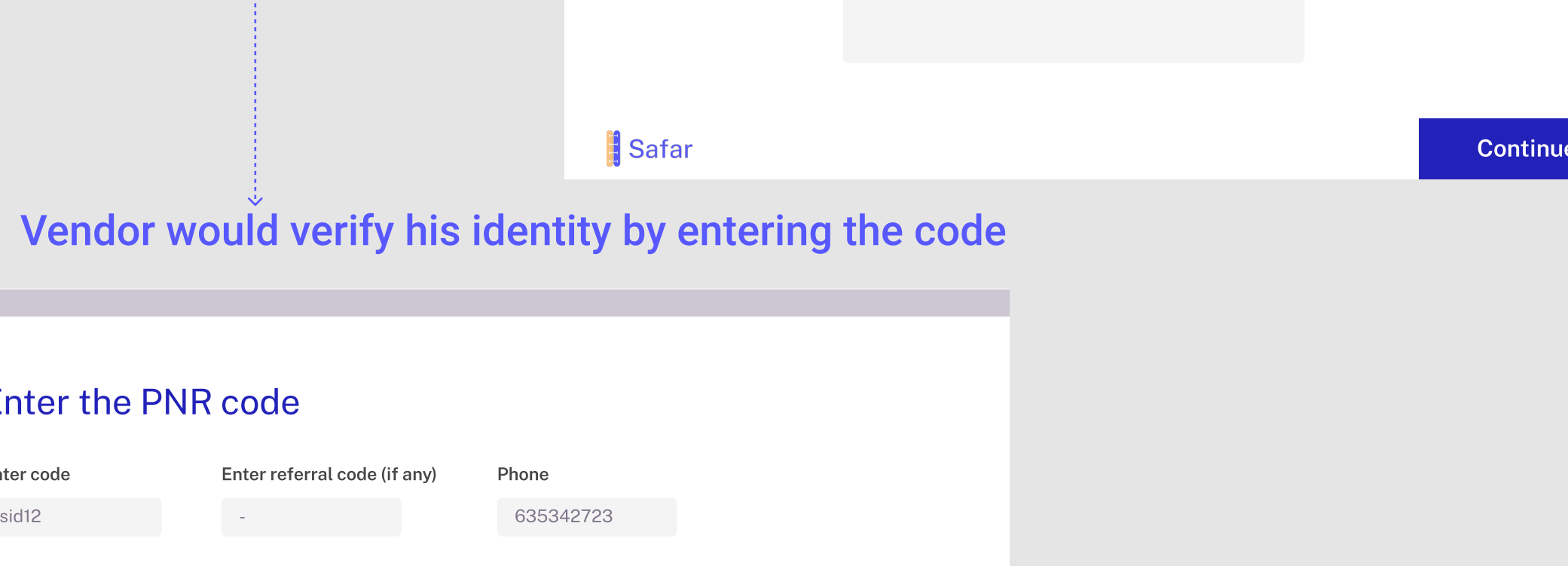


They would begin by selecting Category.

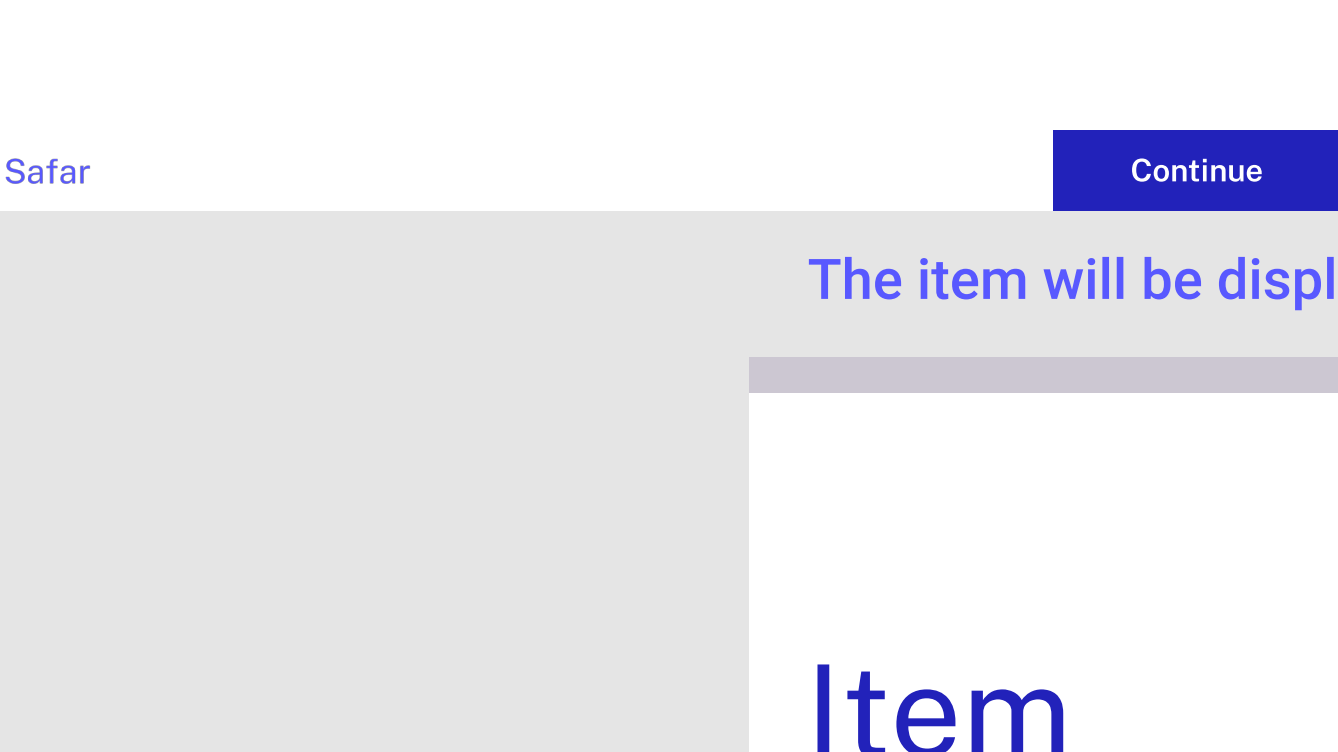
Vendor would scan his item in the stock



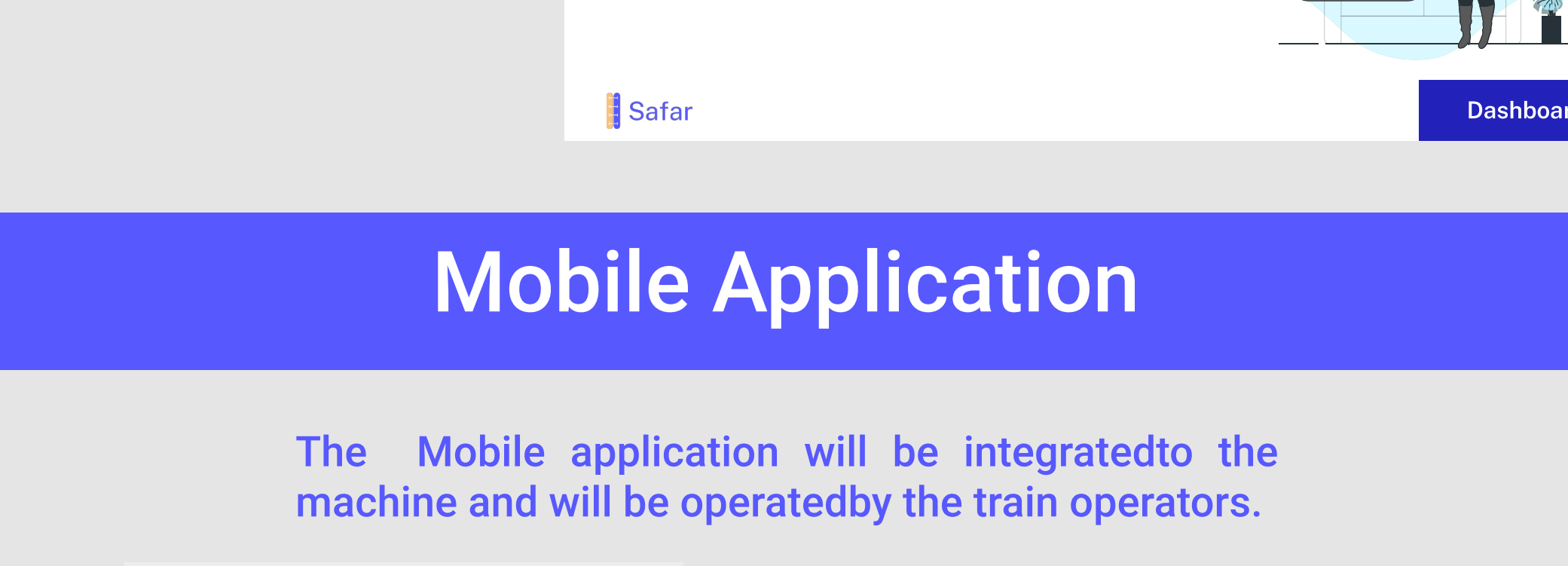
Scan Item Details



Vendor would verify his identity by entering the code

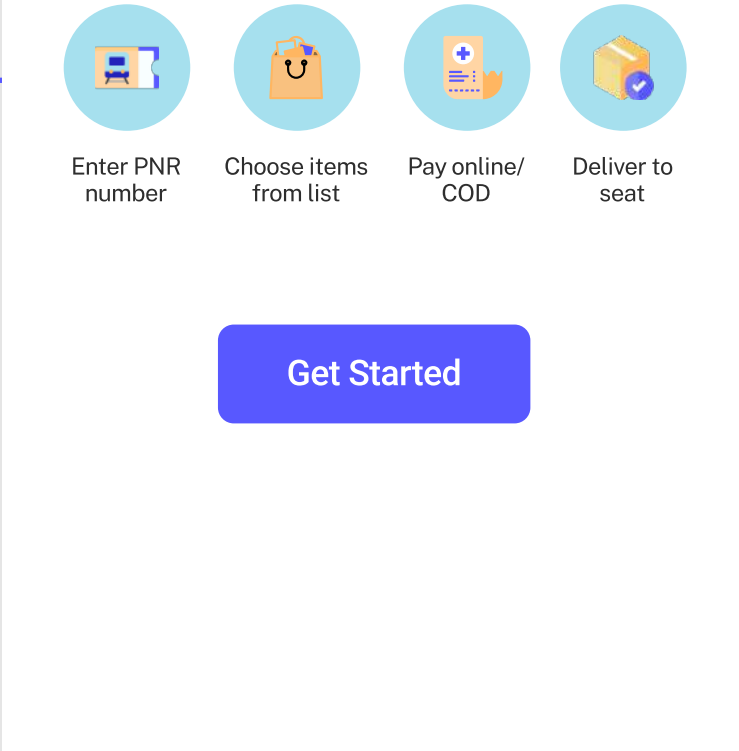


The item will be displayed in the mobile application



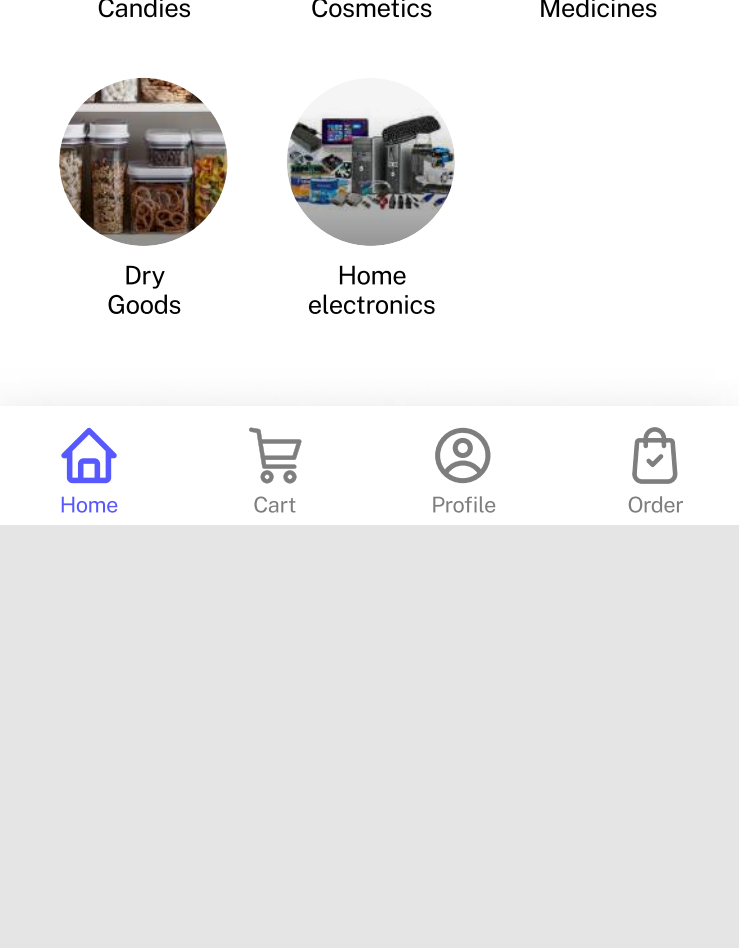
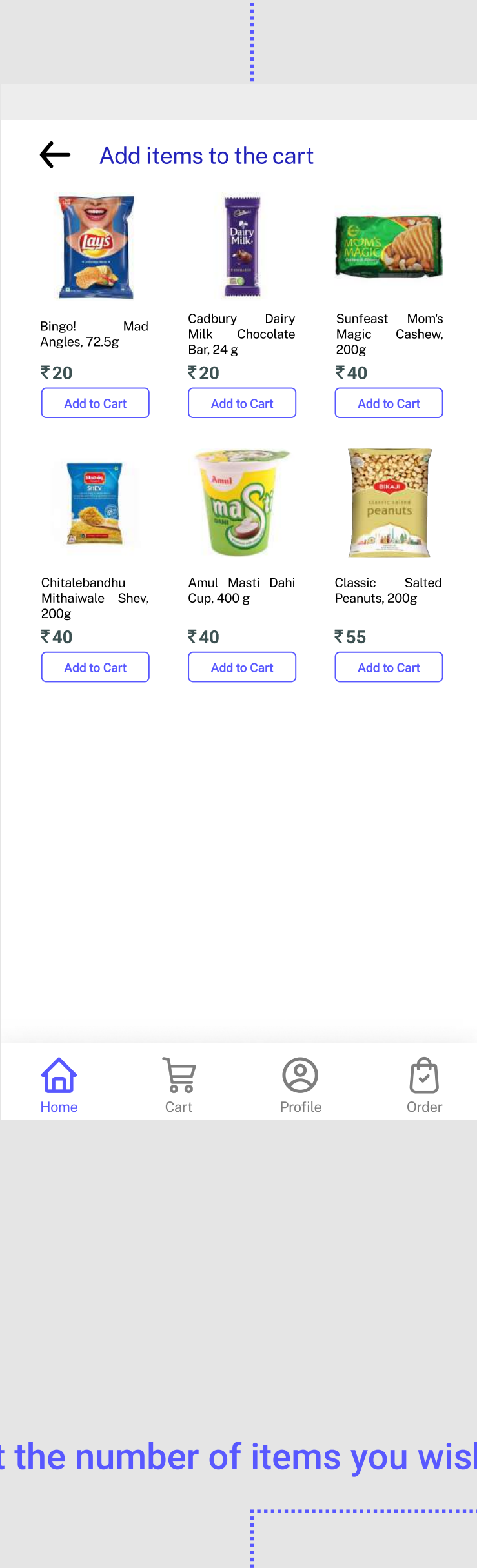
Mobile Application

The Mobile application will be integrated to the machine and will be operated by the train operators.



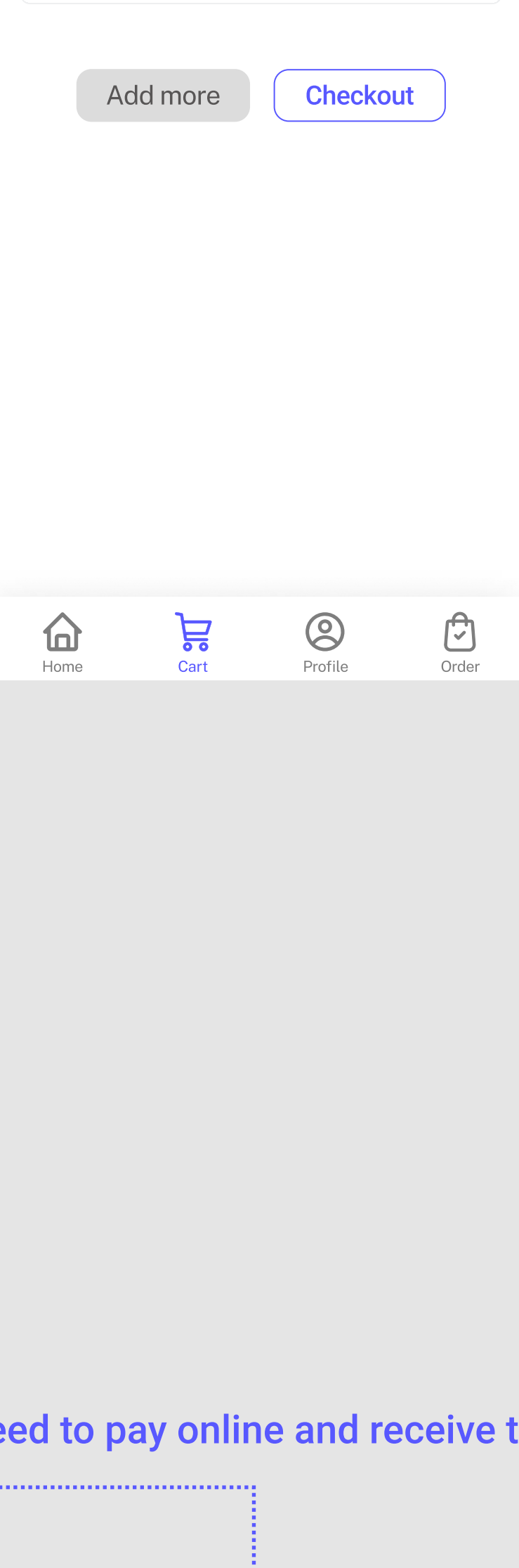
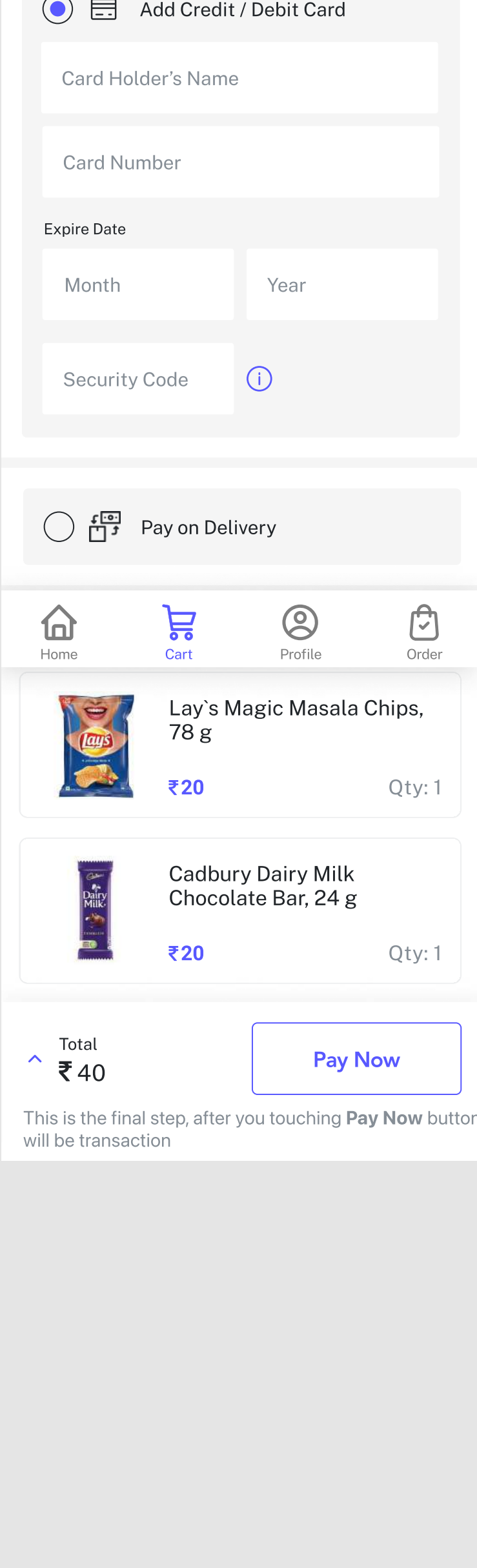
The passengers would verify by entering the PNR code before accessing the application.

The passengers can choose the category of products they wish to buy.

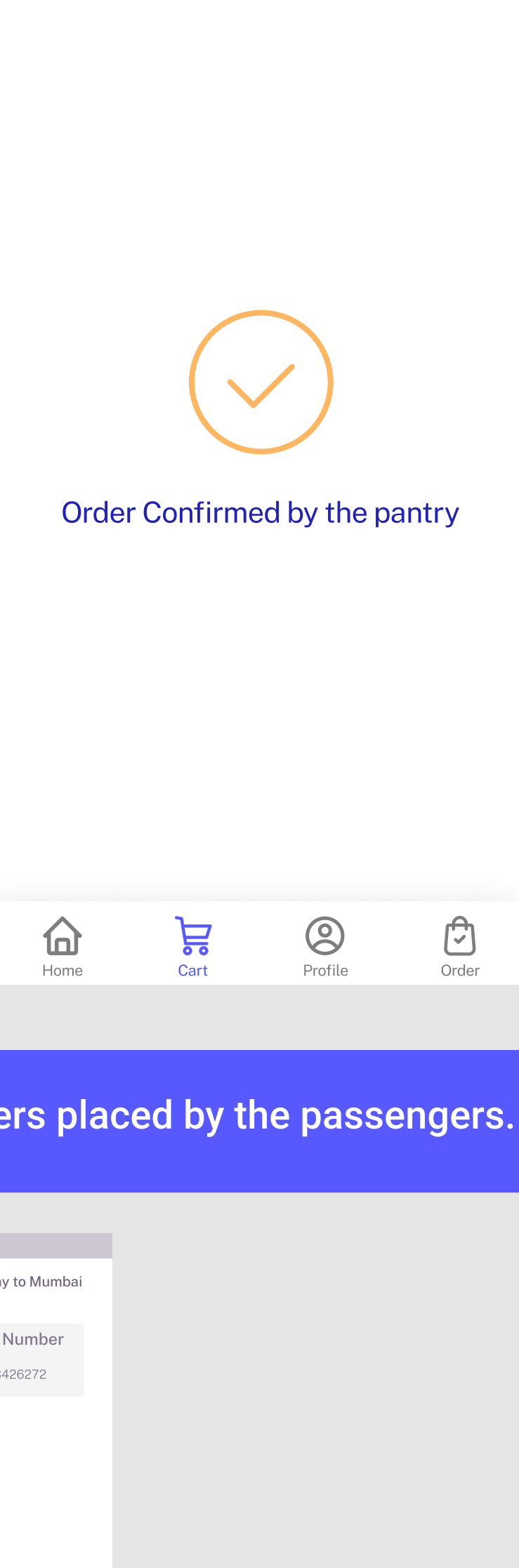


They can add items to cart which are available in the pantry.

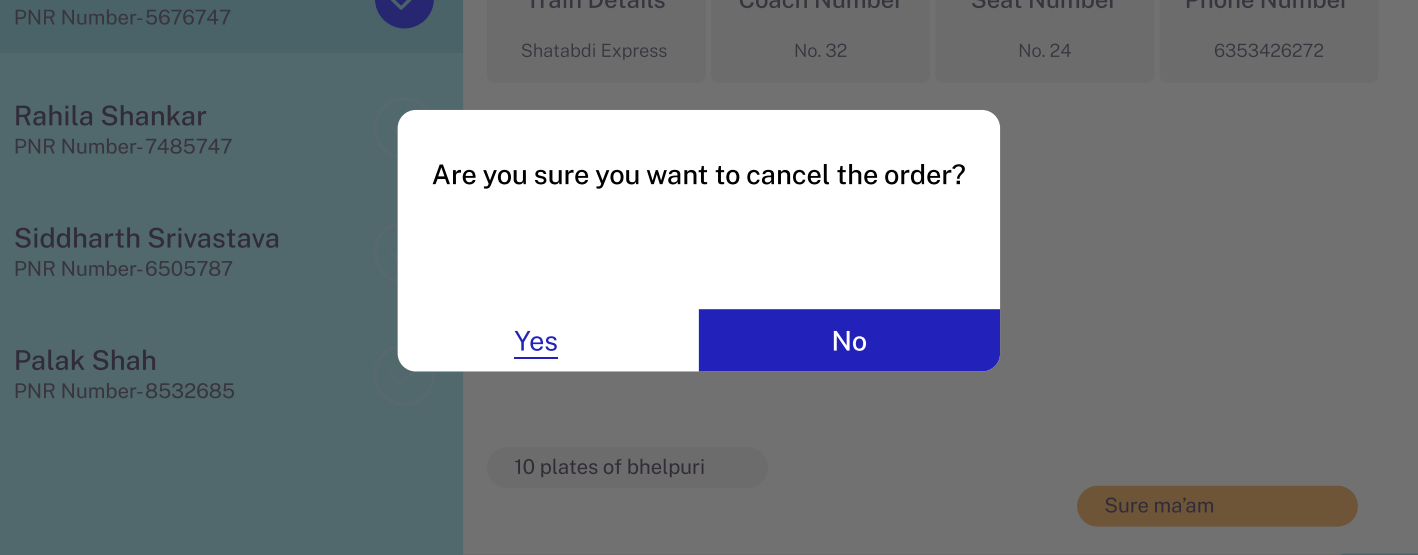
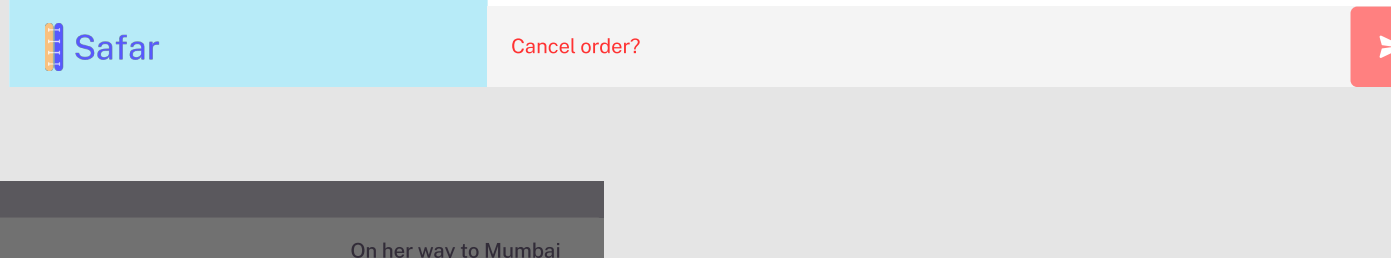
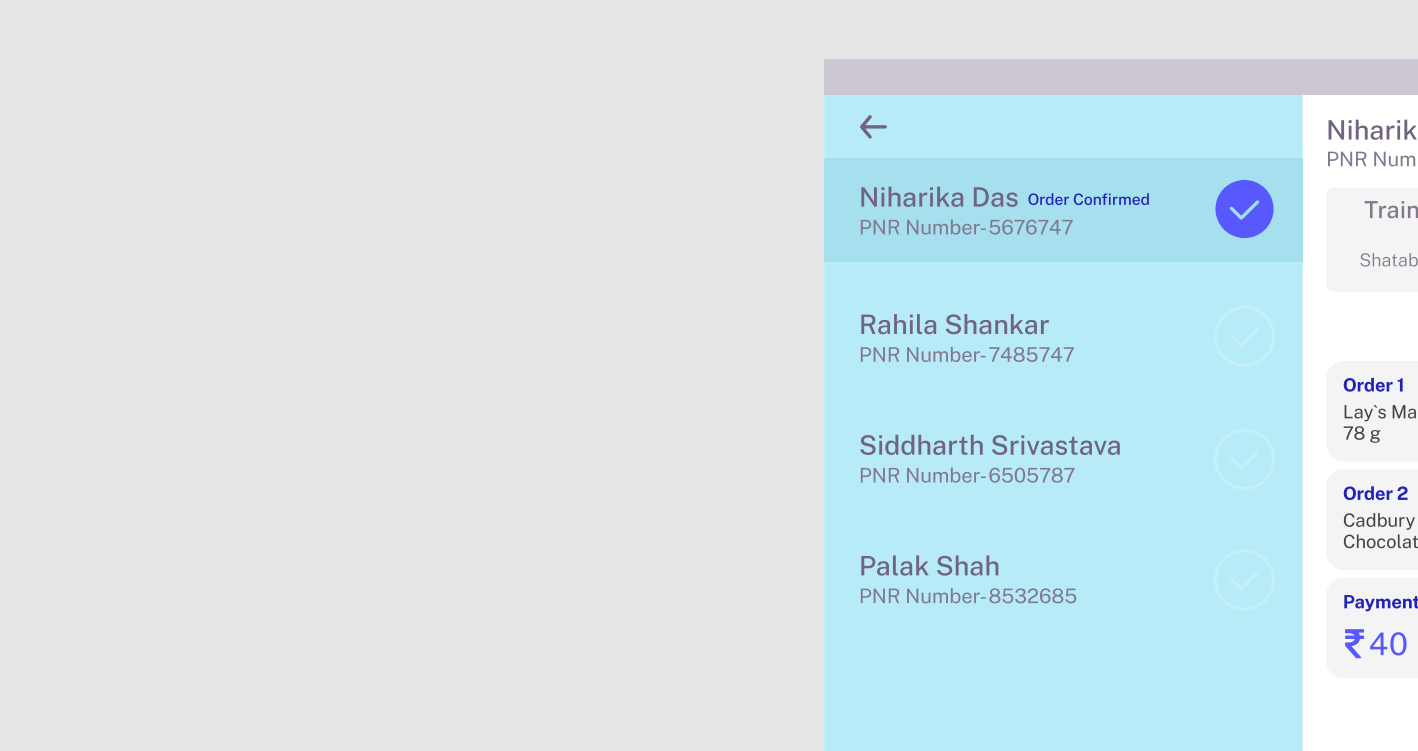
Select the number of items you wish to buy.



Proceed to pay online and receive the order



The vendors would now confirm the orders placed by the passengers.



Impact on Society

Our solution would help minimise the contact points for the people travelling in trains, so that the chances of getting infected could be prevented till some extent. It would somehow increase awareness amongst them and a more systematic and disciplined way of travelling could be promoted in a situation like this. It would enhance the Quality of being responsible for themselves as well as for others, just by following the system designed to address their problem effectively.

Sustainability

As we know we were struck by the Covid 1st and 2nd wave without any warnings to prepare for it, and It's almost over a year since the first wave came into picture. Eventually people will have to travel for several reasons, be it medical reasons, personal reasons, work reasons or something like migration of workers(that happened previously, mass travel). We can't stop it, as all these condition requires travelling to resume. We instead are proposing a system that ensures safe travelling experience which is need of the hour. Lowering the infection and death rate to a point where thing come to normal is what we plan on, without disturbing the nature and planet in anyway.

How are Passengers benefited with our new Design?

- This will prevent their continuous exposure to a lot of people.
- So many options on one screen increases the demand of the product and provides variety to choose from.
- People need not be attentive/ alert all the time to see when the vendor passes, so as to place order.

How are Vendors benefited with our new Design?

- The employment issue gets solved here with this idea as they will be allowed to provide their Product without working for hours walking on and around trains for Getting orders.
- They are the ones exposed to most number of people as they travel everywhere and are in close contact of people in order to fulfill their job.
- They have a source of income guaranteed.
- They are now a major part of a whole system. They have their own identity and their service is valued.
- He/she doesn't have to go through bargaining /negotiation by every passenger.

How is Railways benefited with our new Design?

- They now are just managing this system, they need not invest into raw material, preparation/ making, sourcing of the product.
- They get everything in one place, the vendors come to them and they have all the products readily available.
- They decide and add certain amount on the product that the vendor provides and keep that as their income for the service that they provide like distribution, data update and app management.
- They will be recognised for promoting these local vendors and will be credited for their technical advancement, management and safety.

Added Benefits:

- In this pandemic situation, a design solution like this provides and encourages the sense of standing together and supporting each other to rise above this as an even stronger community.
- By taking precautions and following it without fail we are not only saving ourselves from this deadly situation but also contributing in drawing the graphs down worldwide.
- With this solution we are constantly saving time, money, manpower and lives of everyone who is part of this system and beyond.

THANK YOU