



CHITKARA
UNIVERSITY



COVID-PDS Plus

CURE THE CHAOS

MENTOR: Sachin Ahuja

KIIT University

25-06-2020

e-PDS platform towards pandemic restoration

Meet The Team:

"Life is not a problem to be solved, but a reality to be experienced."



Anmol Sinha

Deep Learning Enthusiast | Data Science/Big Data Developer | Ethical Hacker | Python Developer | DevOps/MLOps | Competitive Programmer



Vedant Shrivastava

Rust-lang Developer at Mozilla | Cloud Architect | ML/DL Enthusiast | Web Developer | UI-UX | Writer



Avik Kundu

Web Developer| Data Science | Competitive programmer | Cloud



MARKET PAIN: PROBLEM STATEMENT



“Due to COVID-19, a huge number of people in our country are with no food and shelter. How can you use technology to help the authorities solve this problem?”





CURRENT SCENARIO

The government has given contracts to reputed vendors for distribution of daily eatables and ration among the people who are suffering, during the lockdown, at SUBSIDIZED RATES according to their income.

The vendors have set up their distribution points throughout the country, but are facing problems in management during distribution, as there are a few workforce available at every distribution point to cater the entire locality, which leads to violation of Social Distancing rule.

The government has arranged quarters for the homeless people, as they are at a high risk of getting contaminated. But there is no medium at present, to connect them together due to the technological barrier. The citizens are helping the NGOs to locate such people, but at a slow rate.

TARGET MARKET



The Poor & Middle Class

The Daily Wage Workers are the most affected due to the lock-down situation.

We are taking the opportunity of providing them food at low cost considering their economic condition.

The Homeless

These people have high chances of getting contaminated due to their surrounding hygiene.

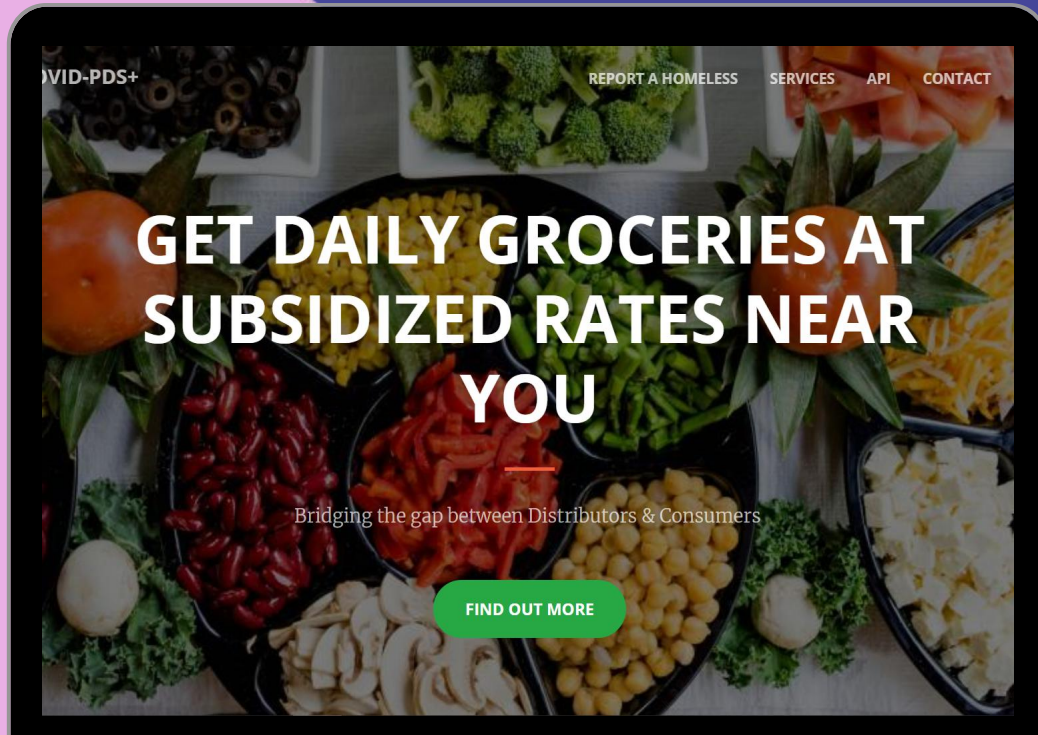
We are encouraging citizens to report such cases in our Application. This information is shared with the Local Authorities/NGOs, to provide them residence.



- An application platform which bridges the gap between the distributors and the customers.
- Using ML algorithms, we are calculating the **INCOME INDEX** of the customers for understanding their economic condition. This helps us to predict the % of subsidies to be given.
- The application features the portal where citizens can report homeless people, the information would be immediately transferred to connected NGOs/ organizations.

The Solution & Business Model



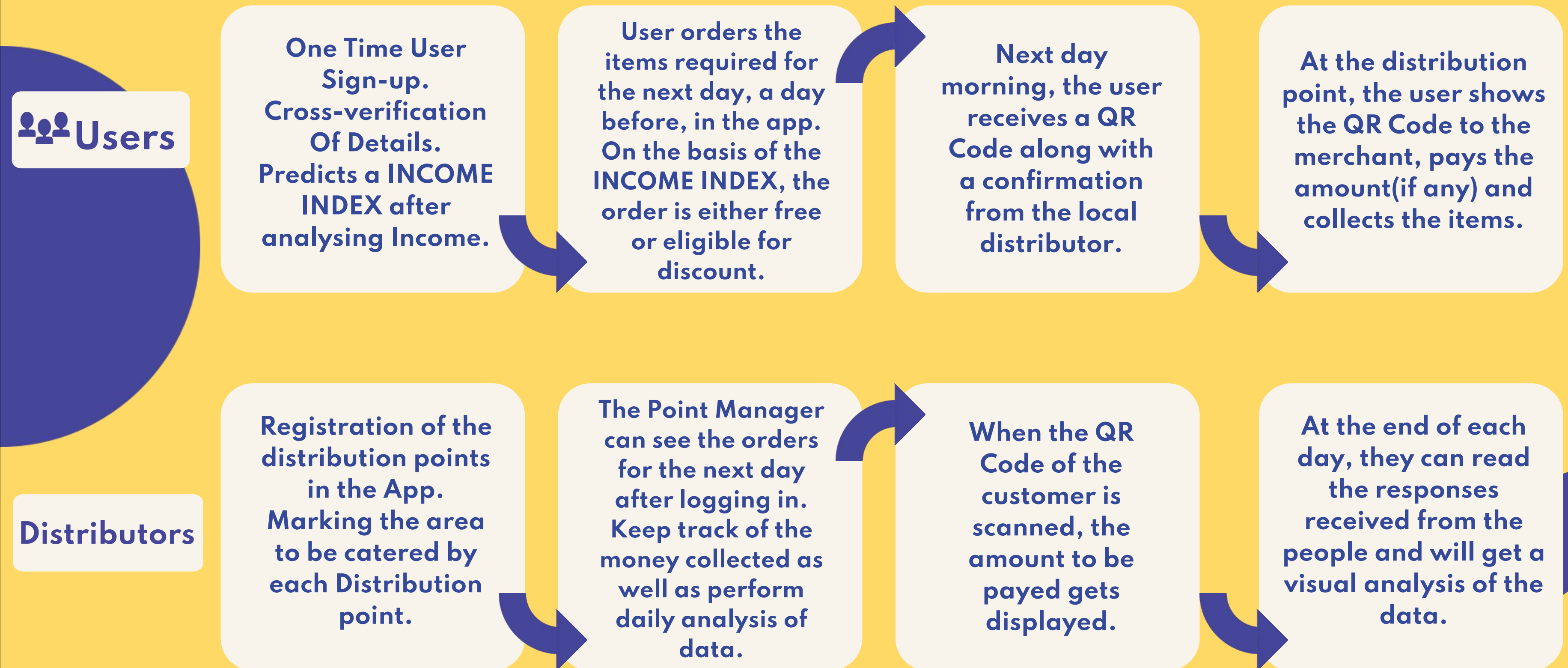


Technology Stacks and Tools Used

- A **MERN Stack Web Application** using **NGINX** as **Reverse Proxy** and **Load Balancer**.
- Complete User Interface of the Mobile Application using **Adobe XD**.
- Utilizing the computation power of **Spark** for Predictive Analytics.
- Containerizing the Application using **Docker** for safe and secure deployment on Cloud Engines.



Application WorkFlow



Uniqueness of the Project



1

Effective business model. No Direct or Indirect Competitors.

2

Multi language support to cater the diverse population.

3

The INCOME INDEX calculation through the Predictive Analytics can be used in other projects requiring classification according to economic conditions.

4

With the use of Real Time Analytical calculations and QR Code Checkout, the waiting time at the distribution points is lowered, maintaining the SOCIAL DISTANCING rule.

5

Migrant labours stuck in other cities, having their Aadhar Card can avail the service, which is not possible with the current PDS system.



REVENUE MODEL

Interstitial & Admob ads from Google

Daily active users

User Retention

Location of Users

Incentive per head from Distributors

Connecting medium
between the Customers &
Distributors.

Our app can fasten and
channelize the distribution.

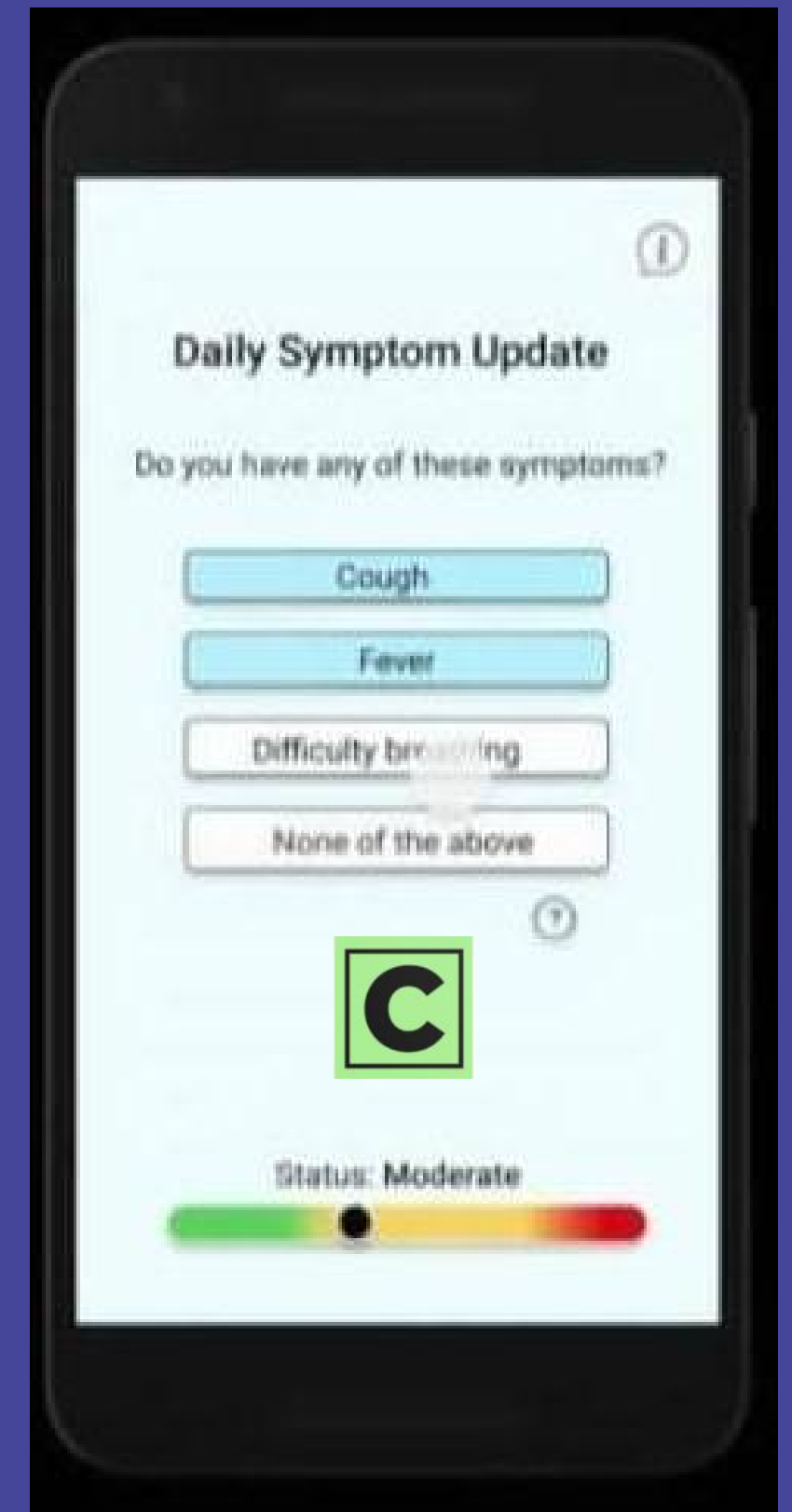
APIs for Analytics

Data after proper **Masking of sensitive information**, can be used by Analytic companies.

A highly profitable model in the time of Data Monetization.

Phase 2: **COVID-HEALTHCARE+** (Towards Social Welfare)

- The **Revenue earned** to be used towards social welfare as **COVID Healthcare+** in Phase 2 of business model as **Social Responsibility**.
- Here the implementation caters the target market Rural India.
- In house treatment to be provided to COVID positive cases where healthcare facilities aren't available.
- **ASHA (Accredited Social Health Activist)** workers to be trained, to provide AT-Home Patient Triaging, to the COVID Positive cases in Rural India.
- COVID-19 spread to be periodically monitored.



THE IMPLEMENTATION:



Cost Structure:



1

Website Bundle: 16000 one time
Cloud Infra: 10k-15k Pay-as-you-go Model

2

Android Development:
7000 one time + 5000 expertise recurring

3

ASHA Workers Training : 5000 monthly

4

Marketing: TV, radio, SEO, Social Media
20000 one time + 10000 recurring

5

Total:
One Time: 43000
Monthly Recurring: 30000



COVID-PDS+

REPORT A HOMELESS

SERVICES

API

CONTACT

LOGIN

GET DAILY GROCERIES AT SUBSIDIZED RATES NEAR YOU

Bridging the gap between Distributors & Consumers

FIND OUT MORE

Current Status of Development:



OUR WEBSITE

<https://bit.ly/covid-pds>



COVID-PDS Plus
CURE THE CHAOS

9:41

Sign In

Phone Number

OTP

Resend OTP

→ SIGN IN

REGISTER WITH AADHAR

9:41

Explore

Groceries

Vegetables

Fruits

Search



Broccoli
Length : 10cm

₹ 19.05

Bunch of 20



Kale
Length : 10cm

₹ 25.65

Bunch of 20



9:41

Order Summary



Broccoli

2 heads

£0.80



Kale

300g

£3.00



Red Peppers

5

£1.50



Strawberries

2 punnets

£4.00

Coupon Code

Sub-total

₹ 19.05

Subsidy

15%

Total

₹ 15.05

→ PLACE ORDER



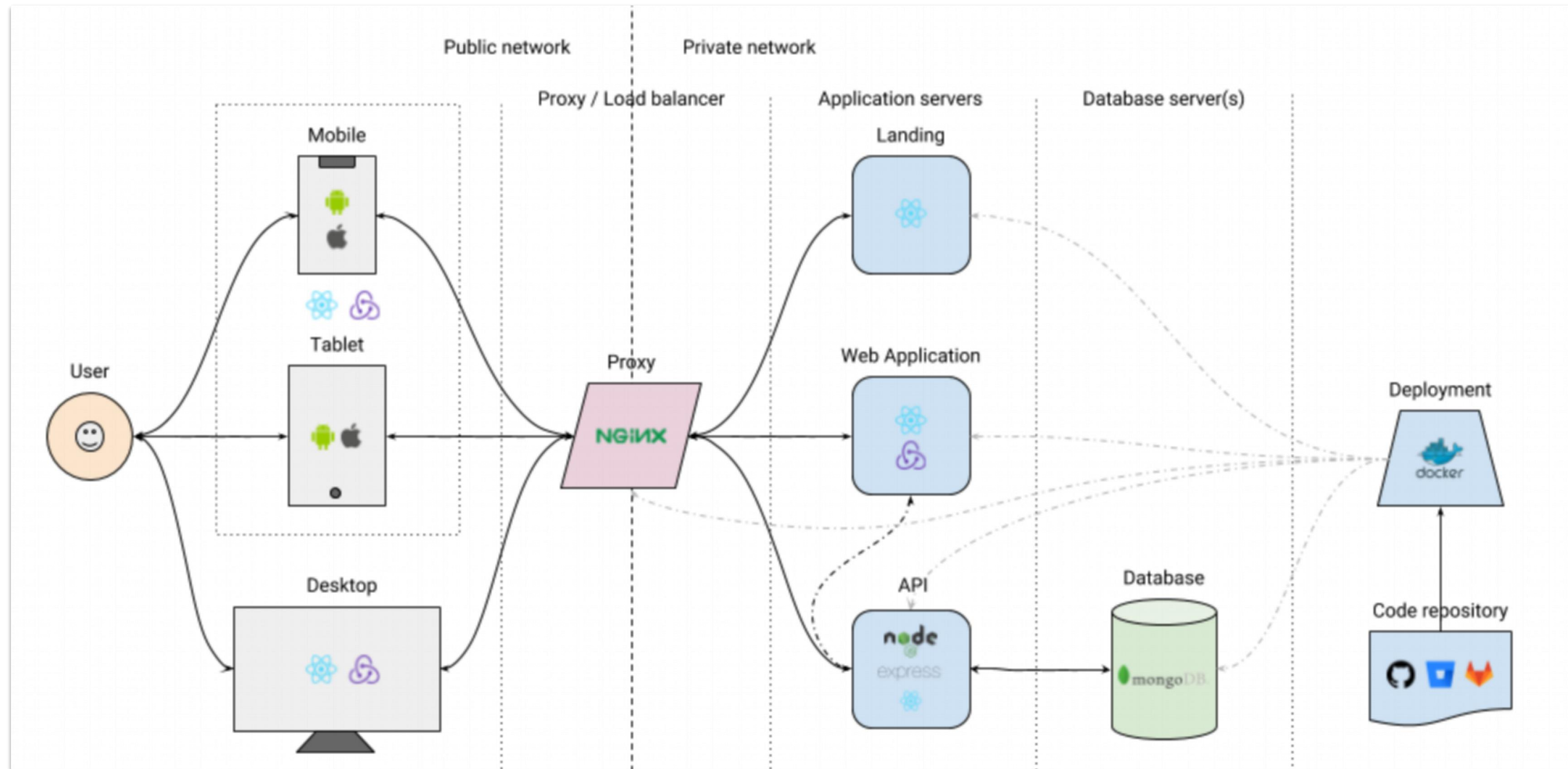
Order placed.
Your order number is
#5678

QR Code will be sent as soon as distributor confirms your order.



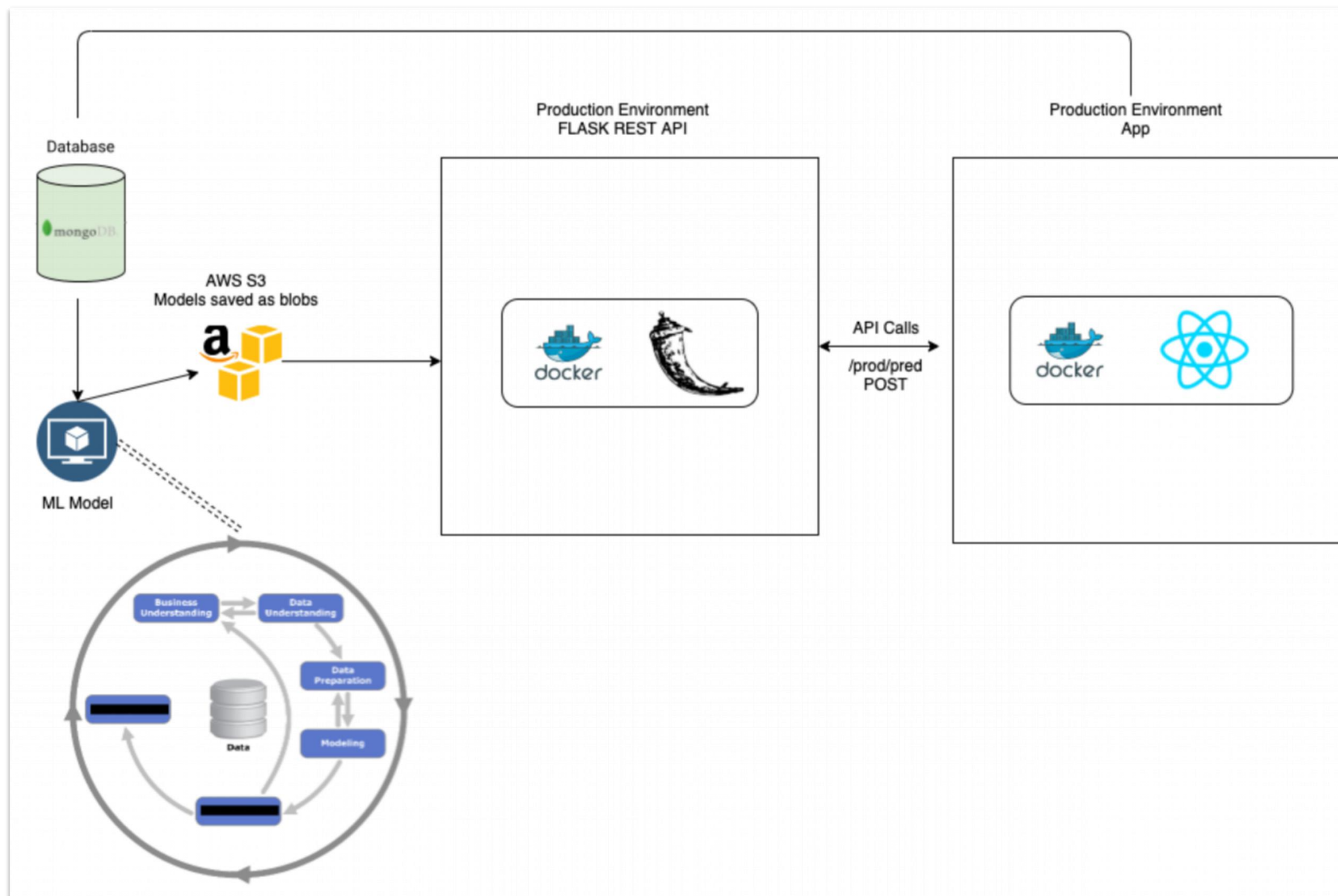
ANDROID APP UI

<https://bit.ly/covid-pds-apk>

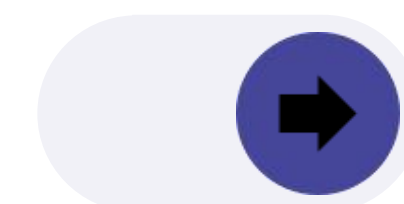


The Web Architecture





Integrating the ML Model with Web Application



THANK YOU!

Our GitHub Repo: <https://github.com/Vedant-S/CoViD-PDS-Plus>

TEAM: BiNARY

THEME: HEALTHCARE

Visit our Site: <https://bit.ly/covid-pds>

Download App: <https://bit.ly/covid-pds-apk>