

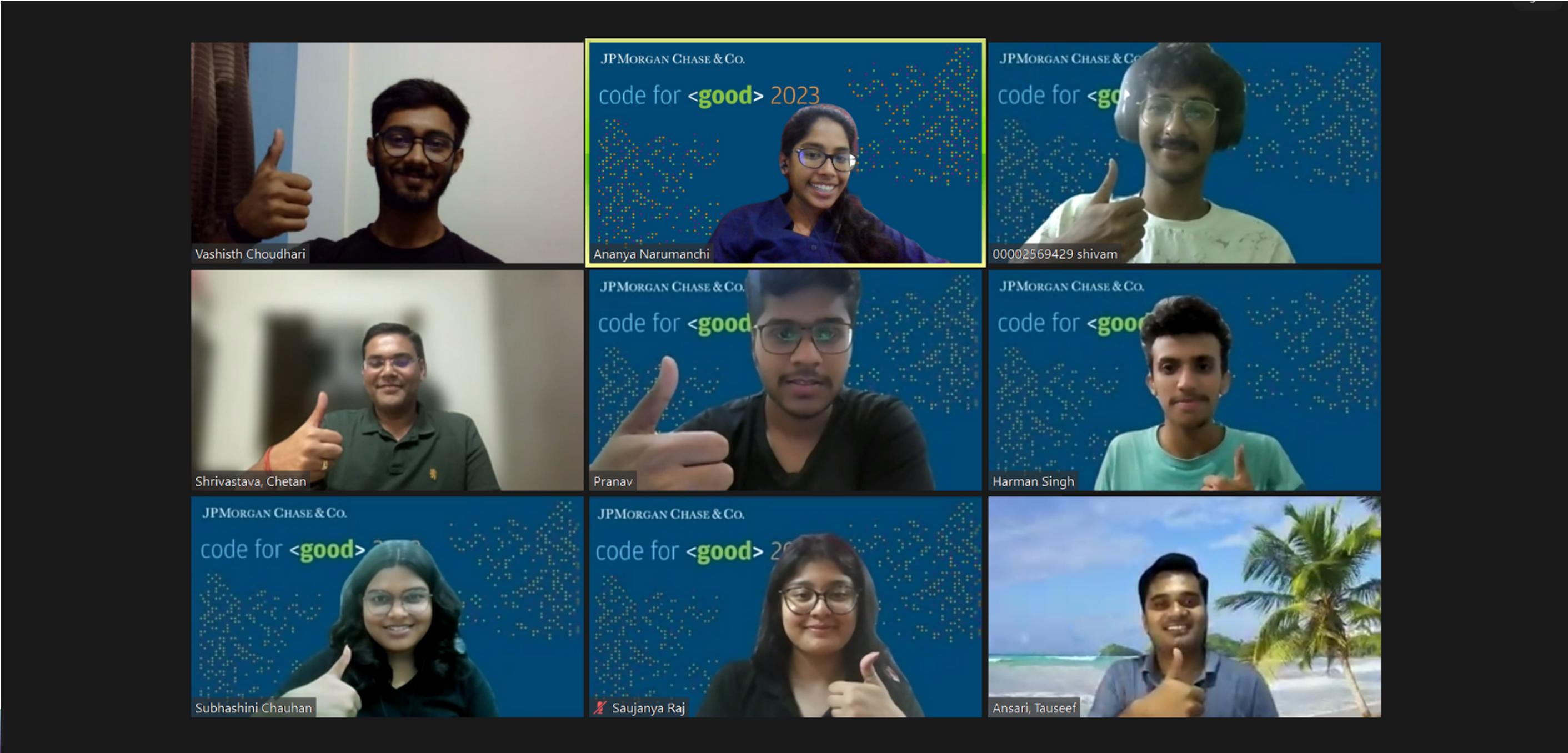
JPMORGAN CHASE & Co.

TEAM 26

CODE FOR GOOD
HACKATHON 2023

Solutions to the problems faced by Dhulikona Foundation

Our team



Mission and Vision

Our Mission

The mission of our team is to provide service to the NGO, understand their problem and provide sustainable solutions by meeting their requirements .

Our vision

To provide a technical solution that shows the NGO the working and status of their efficiently installed schemes, allows the users and others involved in using/ maintaining the scheme to report issues and track daily chores.

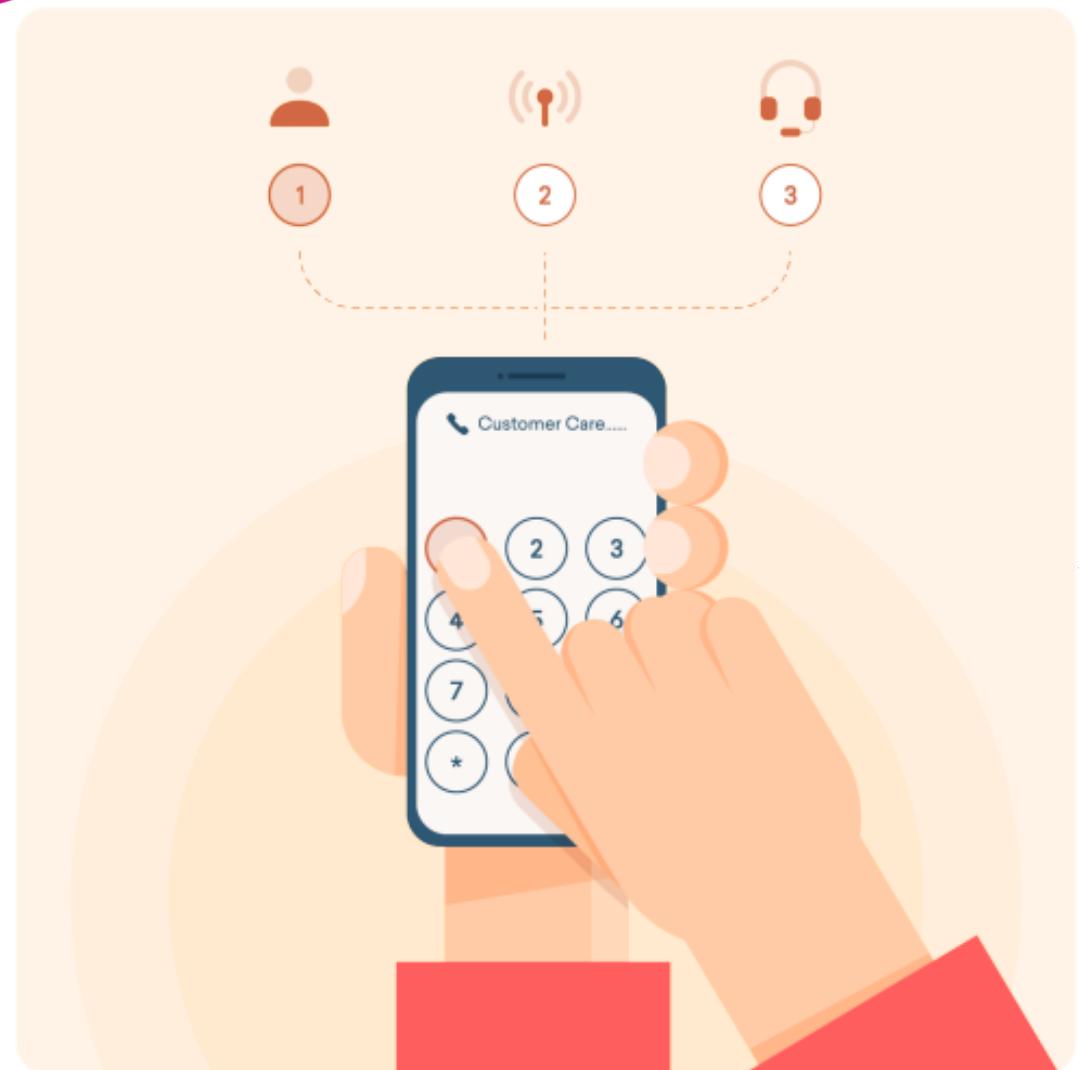
Biggest Challenge

Collection of data from the end users in a situation where they lack consistent internet access and possibly the hardware to provide feedback.

Challenges

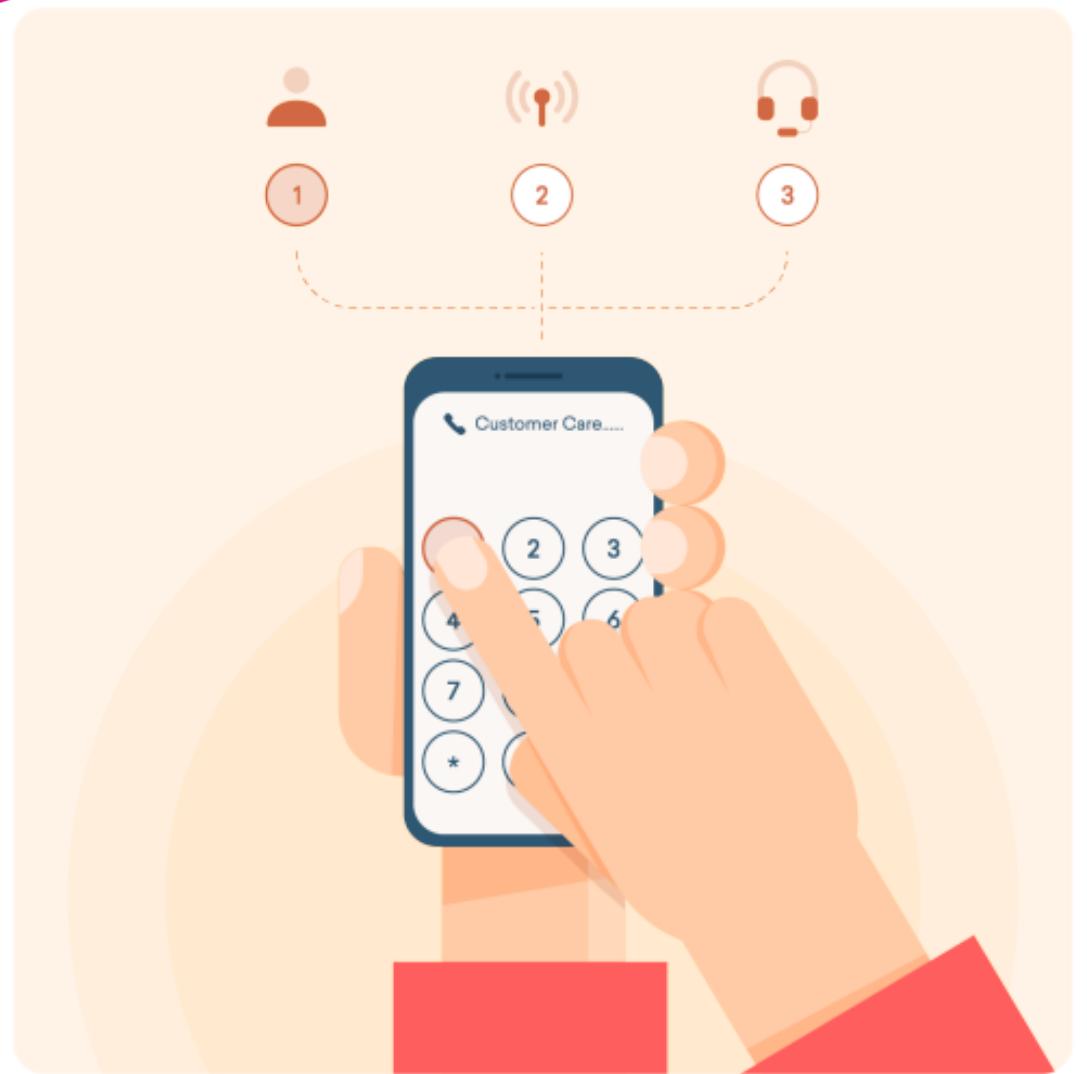
- Website access, navigation, and filling of forms may seem like a complex task for villagers.
- The villagers may not have access to stable internet connections or personal systems.
- They may not have a smartphone that supports apps or can scan QR codes.

Our Attempt at a Solution



Interactive Voice Response

An IVR system that would call the villagers at set times to get an update on whether they have received water for the day or not.



The IVR system would also allow users to call a toll-free number wherein they can address their grievances.

Division of portals for various people involved

Pump
Operator

Water Quality
Control
(WQC)

Water User
Committee
(WUC)

Admin
(NGO)

Admin Dashboard

Horizon UI - Tailwind React

localhost:3000/admin/default

Pages / Main Dashboard

Main Dashboard

HORIZON FREE

Main Dashboard

Number of pump breakdowns: 18

Spend on maintenance: \$642.39

Total number of IVR responses: 50

Funds remaining: \$1,000

Number of incoming calls: 6

Total Schemes active: 15

Search:

Pump Breakdowns/Month

IVR Analysis: +2.45%

Water Potability Analysis: +2.45%

Number of issues raised vs solved by the NGO

Monthly

The dashboard features a top navigation bar with a search bar and user profile icon. Below is a sidebar with 'Main Dashboard' selected. The main area has six cards with metrics: pump breakdowns (18), maintenance spend (\$642.39), IVR responses (50), funds remaining (\$1,000), incoming calls (6), and active schemes (15). It includes a line chart for IVR analysis showing a dip in January followed by a rise in February, and a bar chart for pump breakdowns categorized A through E. At the bottom, there are two sections for water potability analysis and NGO issue tracking.

IVR Feedback

dhulikonaDB.feedback

STORAGE SIZE: 20KB LOGICAL DATA SIZE: 291B TOTAL DOCUMENTS: 3 INDEXES TOTAL SIZE: 20KB

[Find](#)[Indexes](#)[Schema Anti-Patterns 0](#)[Aggregation](#)[Search Indexes](#)[INSERT DOCUMENT](#)[Filter](#) [Reset](#)[Apply](#)[Options](#)

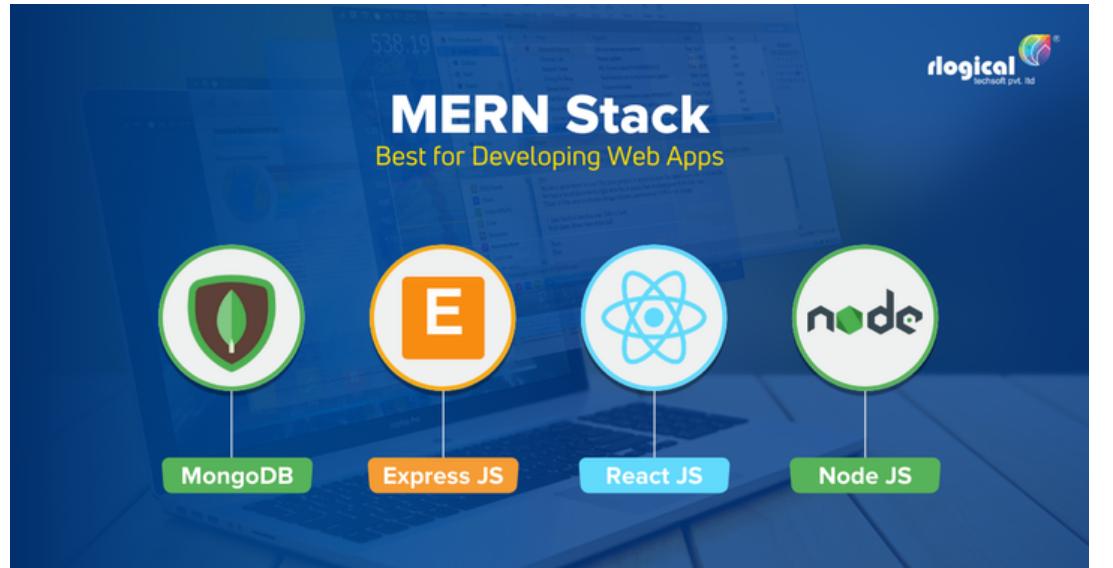
QUERY RESULTS: 1-3 OF 3

```
_id: ObjectId('64b3113133a128eale8d033f')
mob_no: "+918210511399"
problem: "no problem"
call_type: "outgoing"
```

```
_id: ObjectId('64b3113133a128eale8d0340')
mob_no: "+918210511399"
problem: "water problem"
call_type: "outgoing"
```

```
_id: ObjectId('64b3113133a128eale8d0341')
mob_no: "+918210511399"
problem: "no problem"
call_type: "incoming"
```

Tech Stacks used



Future enhancements

- Multiple mobile numbers for each village that are available for the IVR system, to receive an additional input from the calls as a village ID, for a more seamless integration.
- Warning system for pump operators if there are a large percentage of people who have not received water and the pump has been marked as on.

This was our attempt at contributing towards giving back to society. We hope it can help in providing a framework for a future solution

THANK YOU