



Feedback System for Gujarat Police

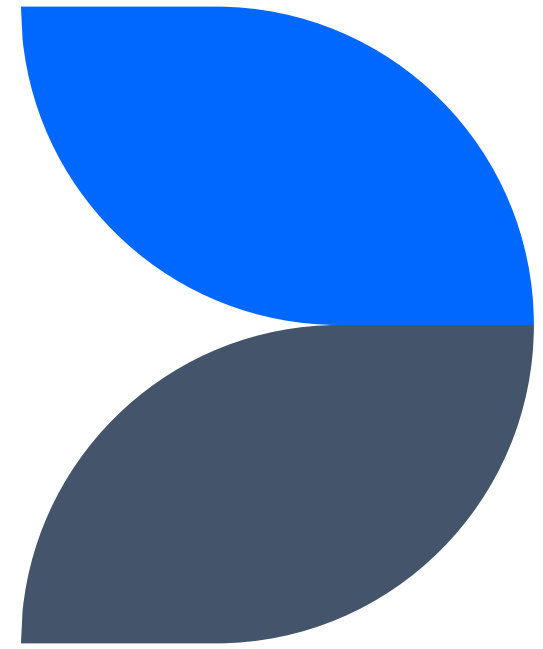
QR Code-based



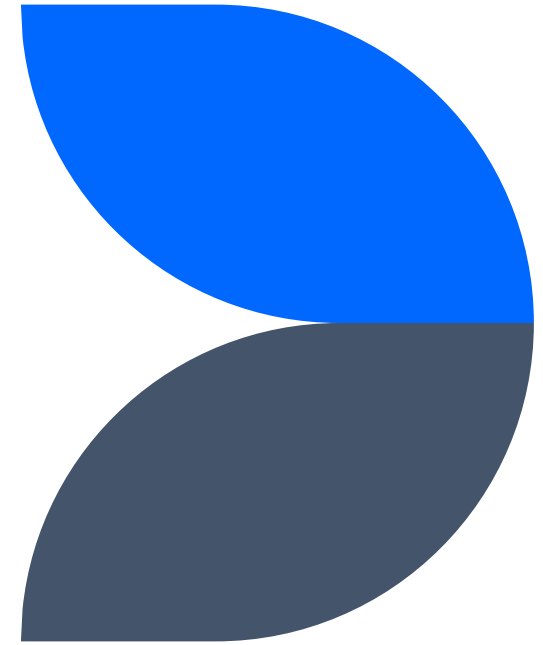
Our Problem Statement (PS)

Problem Statement ID- PS010012

Statement- QR Code Based Citizen
Feedback System for Gujarat Police



Our Understanding of PS



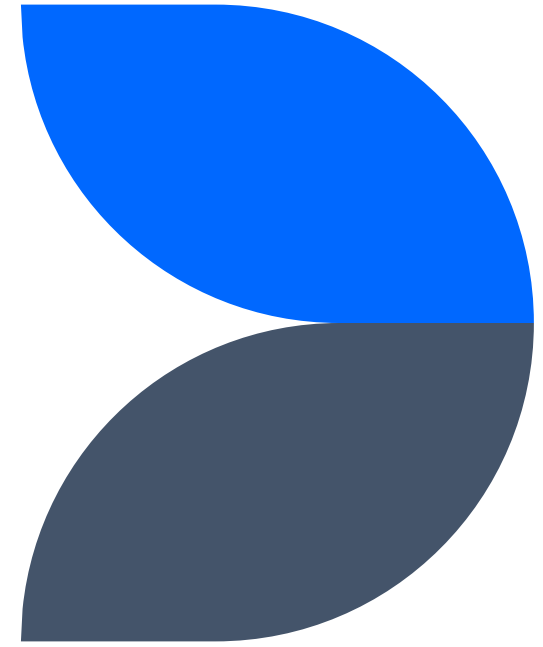
Understanding the PS

What challenge describes?

- A simple and quicker feedback system for Gujrat Police.
- People can scan QR and submit their feedback.
- The form should be online.
- Any officer with login rights can see the report on any particular police station/ district/ city.



Our Approach



Defining Objectives I

- Making of a feedback site for Gujarat Police
- Feedback Form should be in easy language and it must not take more than 2-3 mins to fill it.
- Feedback Form will contain different type of question for easy understanding like ratings, text description and multiple choice questions.
- User can choose a particular police station to give a review.



Defining Objectives II

- Police personnels with login rights can view a report generated from the feedbacks for any particular police station, district or city.
- The feedbacks will be anonymous.

Planning Feedback Categories

- The feedback categories should be easily understandable and can be filled even if you never visited the police station.
- For police a feedback can include responsiveness, problem resolution, community relations, etc.
- If someone have visited the police station so they can give a feedback on infrastructure and policemen's behavior.

Feedback Form Design

- The feedback form must user-friendly.
- It can be accessed from the QR Code.
- It should be attractive and simple at the same time for ease of use.
- It should not contain many descriptive questions as this may take much more time.

Data Collection and Managment

- The feedback data will be collected and stored securely in the database.
- This data will be sorted according to the police stations then by districts and then by city.
- All the feedbacks will be stored properly in the database.
- Regular backups of feedback data.

Anonymity and Privacy

- We shall inform the users that the feedback is anonymous.
- This can help encourage in honest feedback.
- Personal information column will be optional.
- If you mention your email address then you will get responded on your feedback.

Data Analysis and Reporting

- Regular analysis of feedback data to identify trends, issues and areas for improvement.
- Generation of periodic reports which can be used for internal assessment and public disclosure(if needed).
- Police personnels with authorization can login and check these reports and take suitable actions.

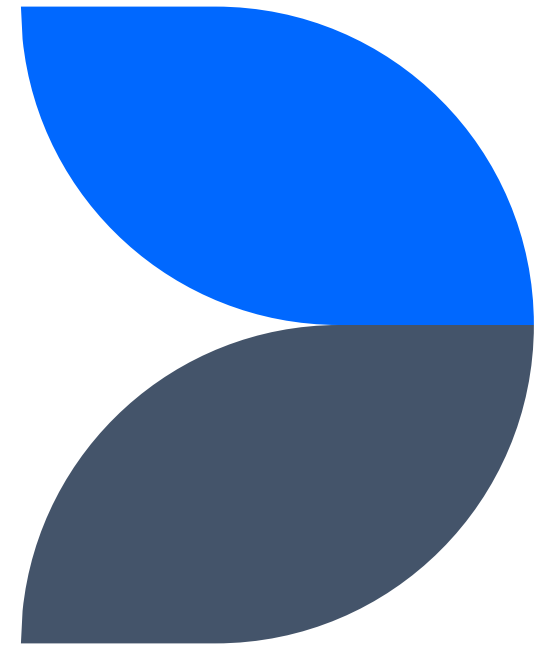
Promotion and Awareness

- Promotion of the QR Code based feedback system through various channels, social media, community events and public awareness campaign.
- We can place the QR code at various public places including the police stations and official website for Gujarat police and website of Gujarat Government.

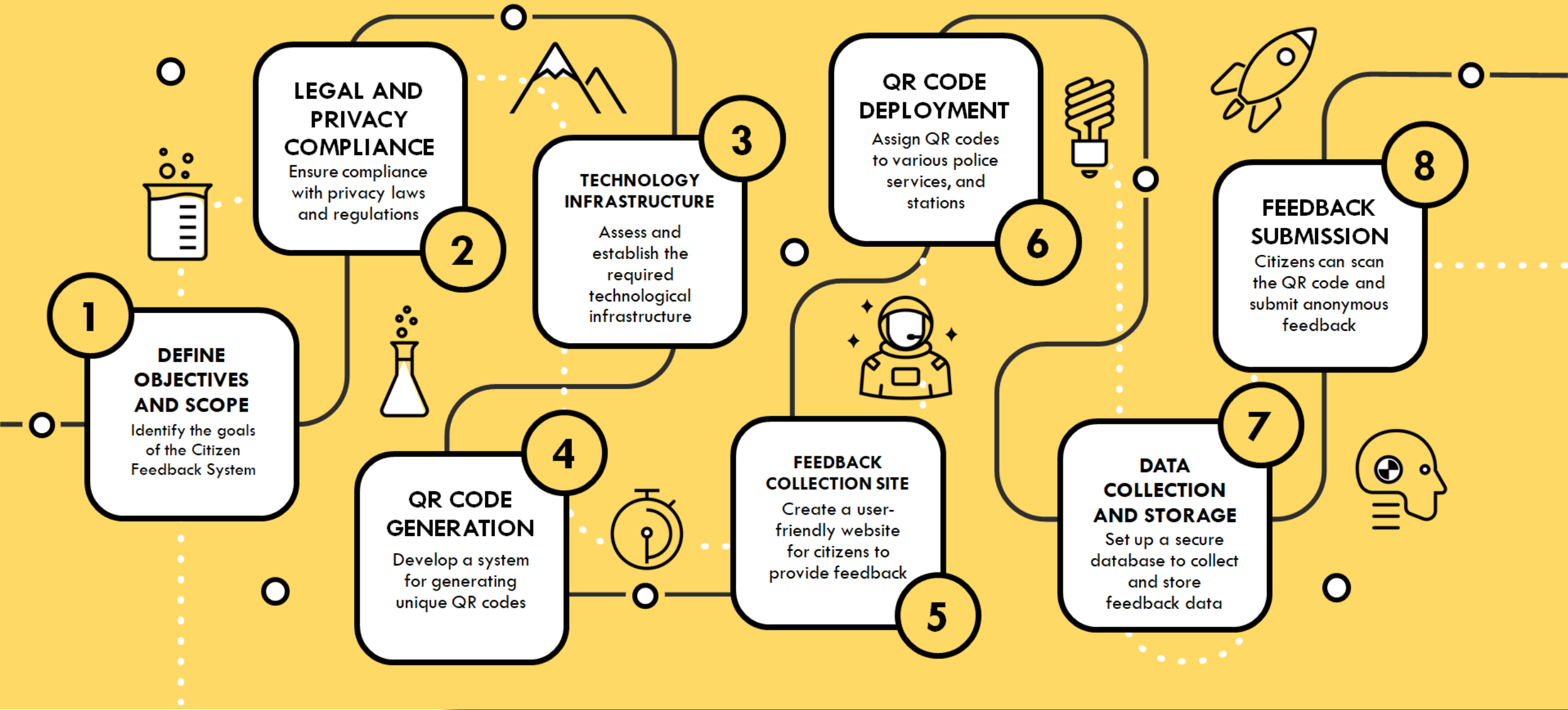
Public Engagement

- Public engagement will surely play the most important role in the success of this feedback system.
- The more the people participate and give their time for feedback will help in improvement of the system.
- The feedbacks can be used for better policing.

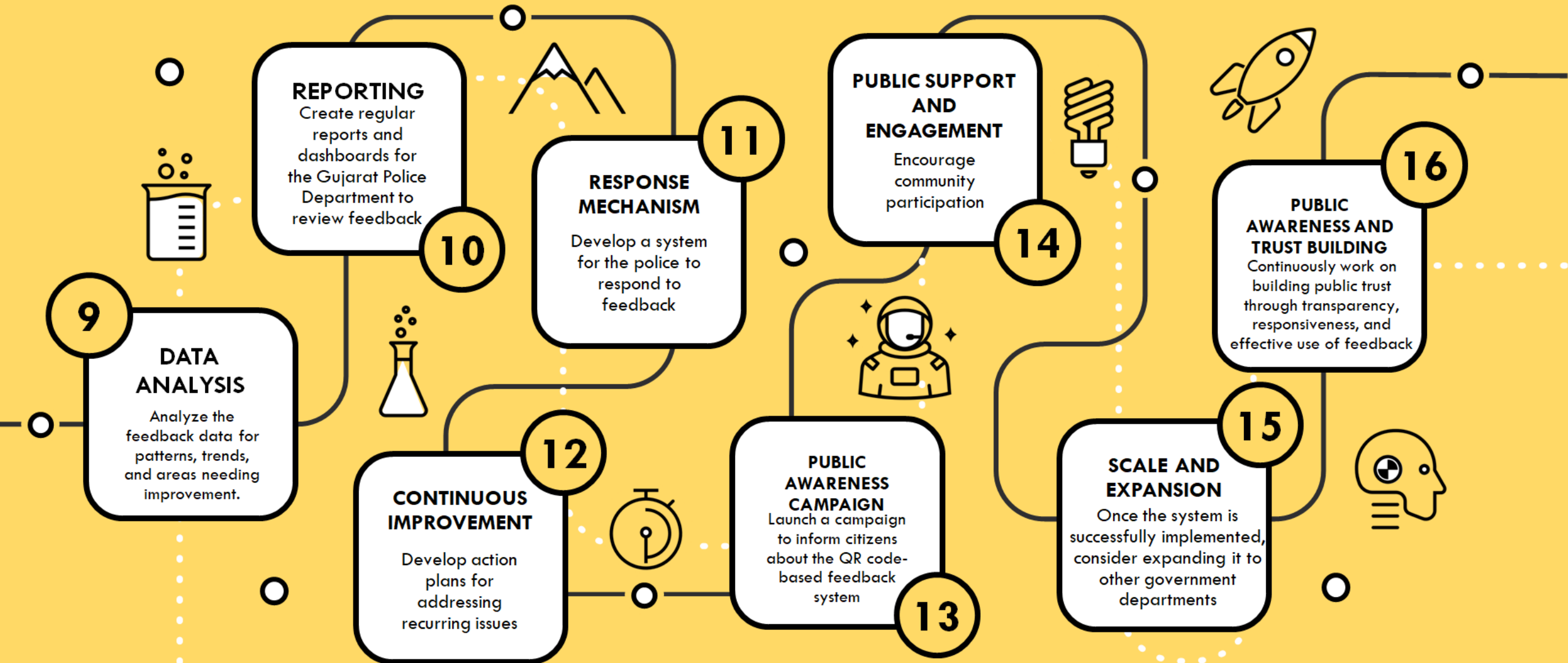
Roadmap to develop solution



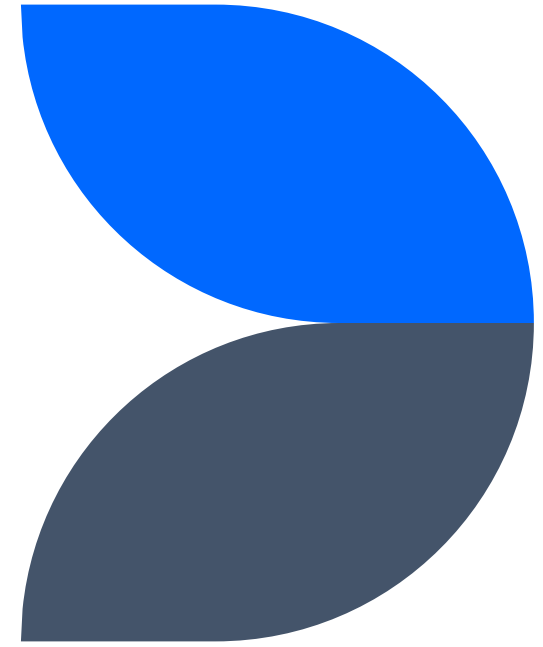
ROADMAP - I



ROADMAP - II



Tools and Technology used



Tools and Technology I

QR Code Generator

- We will use Tool or library to generate QR codes
- For example 'qrcode' library in python

Web Application

- Technologies like HTML, CSS, and JavaScript, combined with a backend framework like Python using Django

Database

- Database to store the feedbacks, some common choices include MySQL and PostgreSQL



Tools and Technology II

Authentication and Security

- We will use authentication for protecting the feedback data.

QR Code Scanner

- QR code scanner is available in every smartphones nowadays.

Server

- Deploy your application on a web server.
- Common choices include AWS, Azure and Google Cloud



Tools and Technology III

Feedback Management System

- A management system which can manage the feedbacks and save the securely.

Analytics and Reporting

- For report generating we will use tools like Google Analytics or custom-built reporting features

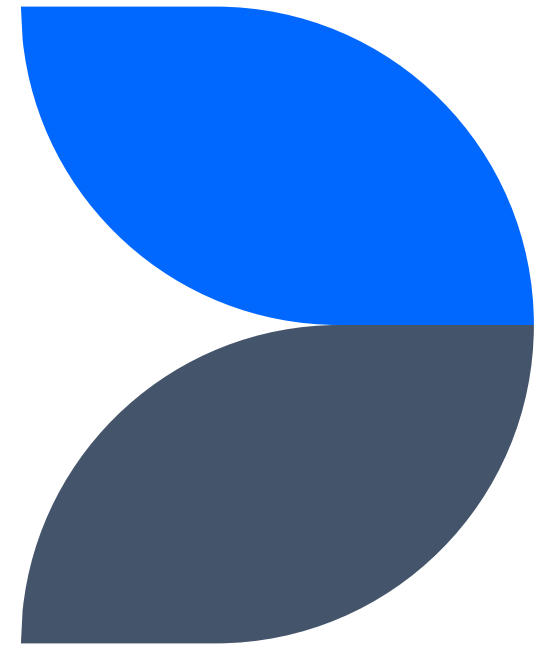
Data Backup and Recovery

- We will take regular backups for the feedback databases and store the old databases on different system other than the server.



Technical Architecture

Our Feedback system contains many components. Below is an outline of technical architecture for this system.



User Side

- QR Code Scanner: Allows user to scan the QR Codes placed in public spaces or on police vehicles.
- Feedback Submission Interface: Provides a user-friendly form for submitting feedbacks, complaints or positive comments.

The user site will be an online form which can be accessed by the QR codes.

Web Portal (Administrator Site) I

- User Management System: Manage user accounts, feedback submissions and accessed privileges.

The user accounts will be created and managed through Python-Django and the feedback stored will be saved in database for further evaluation.

- Feedback Dashboard: Displays real-time feedback data, including categories and timestamps.

We will be creating local functions to evaluate the feedbacks.



Web Portal II

- Reporting Tools: Generates comprehensive reports and analytics based on feedback data.

We will use the stored feedbacks to generate reports which shows the general trends of feedbacks.

- Notification System: Sends alert to administrators for new feedback submissions and updates.

We can use both WhatsApp(we will use python library PyWhatKit.) or email(we will use Django mails) for notification for a new feedback.



Backend Services I

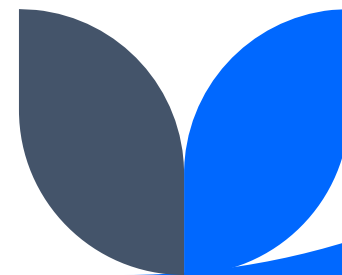
We will create our feedback system backend with backend framework of Python-Django. Some common backend functions:

- QR Code Generator: Generates QR code for feedback form.

Some QR generating tools or 'qrcode' library in Python will be used.

- Feedback Processing: Handles incoming feedback, categorizes it, and stores it in the database.

We will create Django models to handle the data easily.



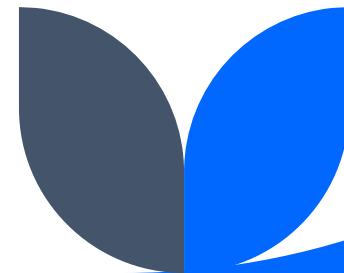
Backend Services II

- Database Management: Stores feedback data securely, allowing for efficient retrieval and analysis.

We will use 'sqlite3' or 'mysql' for database management.

- Authentication and Security: Implements authentication mechanisms and encryption protocols to ensure data security and user privacy.

We can use OTP verification while logging in the website.



Integrations Components

- External Databases: Integrates with external databases or systems to cross-reference feedback data.
- WhatsApp and Email Notifications: Sends notifications to authorities for a new feedback to address the reported issues.
- Analytics Tools: Integrates with analytics platforms for in depth analysis of feedback trends and pattern.



Cloud Infrastructure

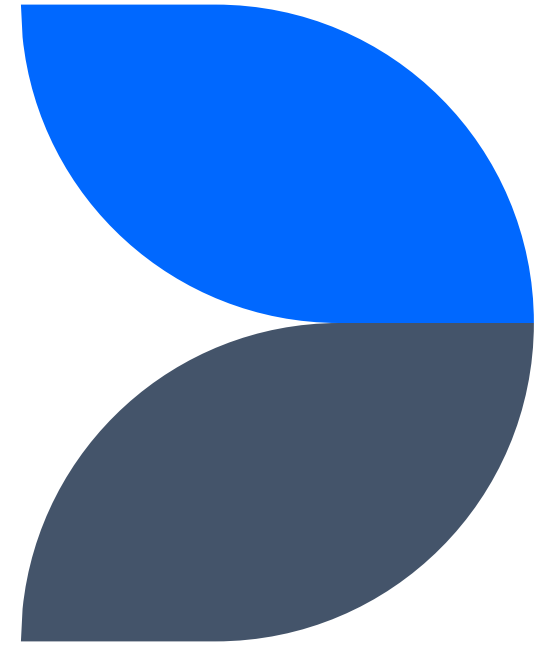
- **Hosting:** Hosting the application and database on a secure cloud infrastructure.
- **Scalability:** Ensuring that the system can handle large amount of feedback submission.
- **Disaster Recovery:** Implements backups and recovery mechanisms to prevent data loss in case of system failures.

Security Measures

- Data Encryption: Encrypts sensitive data and feedback submissions to prevent unauthorized access.
- Secure Protocols: Implements HTTPs and other secure communication protocols.
- User Anonymity: Ensures user anonymity by separating personal information from the feedback if necessary.



Challenges / Risks



Challenges and Risks

Challenges

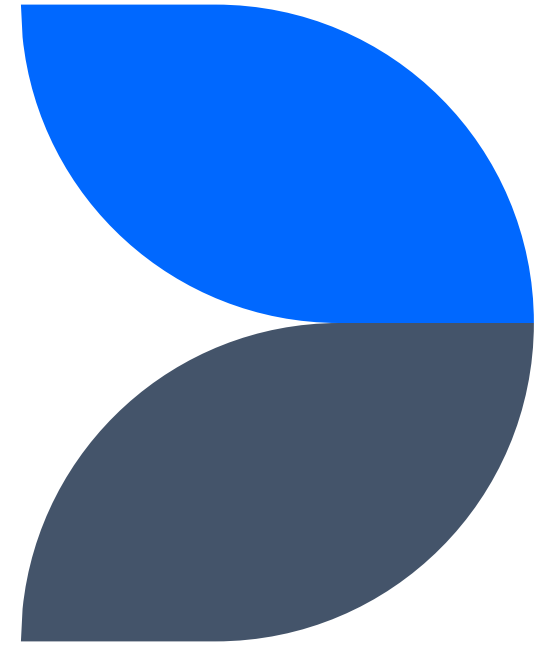
- The system may receive a large volume of feedback, which can overwhelm the police and lead to delays in response and resolution.
- Ensuring that citizens are aware of the system.
- Resistance from both the citizens and police personnel who may be reluctant to adopt new technologies.

Risks

- Lack of awareness.
- Resistance can slow down adoption and implementation, leading to inefficiencies in the feedback system.
- False or malicious feedback may inundate the system, making it challenging to filter and process genuine complaints.



Outcome of our
feedback system



Improved Transparency

- Citizens can easily access the system, scan QR codes and submit feedback, which prompts transparency in law enforcement.
- Transparency in law enforcement can play a vital role in improving relations among the police staff and the community they serve.



Enhanced Civic Engagement

- Citizens will have a direct channel to engage with the police, encouraging them to participate in community safety and policing efforts.
- More civic engagement will directly help in reducing the crime rate/

Efficient Feedback Collection

- The efficient feedback system will make it easier for the citizens to provide their input and for the police to receive it.
- Feedback will play important role in improvement of policing.

Improved Accountability

- The system will allow for tracking and monitoring of feedback and response data, enhancing accountability within the police force.
- Accountability is a factor which is seen less in government bodies, so increase in accountability will increase trust of citizens on the police force.



Reduction in Unreported Crimes

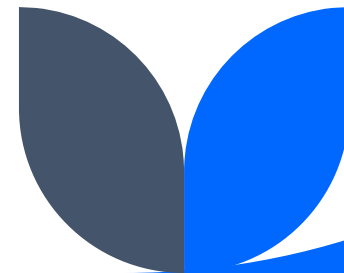
- Encouraging citizens to report crimes and concerns through the system can lead to reduction in unreported crimes.
- Drop in unreported crimes will surely make governance easy and develop trust on police forces.

Enhanced Public Safety

- Through the feedbacks the system can identify emerging safety concerns.
- The police official can take suitable steps to handle these emerging safety concerns.

Trust Building

- The feedback system when used properly can easily enhance the trust between the police and the community they serve.
- Trust will also increase the interaction of citizens with the police forces which will ultimately help in crime reduction.



Quality Improvement

- The feedback system can help in improvement in the quality of police services and operations.
- If quality of policing will increase then crime rate will decrease.

Reduction in Complaints

- By addressing issues promptly, the police may experience a decrease in formal complaints or legal actions.
- Reduction in complaints shows reduction in crime rates.

Citizen Empowerment

- Empowering citizens to participate in the safety and security of their society which can have a long term social and civic benefits.
- Empowering citizens will encourage them to take part in the policing system.



Summary

Key features:

- User friendly
- Anonymous feedback
- Enhanced data collection
- And much more coming up.....



Thank You!

Team- Beyond Infinity