**PROBLEM STATEMENTS FOR HACKATHON 2024**

**PROBLEM STATEMENT 1**

**Automated Check Gate Monitoring System**

A data capturing tool and an analytics dashboard may be designed for achieving the following:

1. Automate/facilitate digital record keeping of the vehicles entering and exit of the vehicles based on ANPR or any other methodology.

2. Digital acquisition or verification of vehicle registration details against the VAHAN database.

3. Digital acquisition or verification of the details of the driver against the SARTHI database.

4. ⁠Generate real time alerts regarding suspicious vehicles entering/exiting the check gates. Suspicious vehicles may include stolen vehicles, those involved earlier in commission of crimes such as drugs trafficking, hit and run cases etc.

5. ⁠Functionality to update the action taken report in case of interception of such suspicious vehicles.

6. ⁠Generate analytics report about nature and pattern of vehicular movement at the check-gates.

Emphasis may be laid on capturing the above information in quickest possible time to avoid clogging of vehicles at the check-gates.

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**PROBLEM STATEMENT 2**

**Chat-Bot for the Mizoram Police**

Develop an intelligent chatbot tailored for police departments to enhance following:-

• operational efficiency,

• communication, and

• community engagement/Outreach to Public

• Platform for public to share the information with the Police in secured and safe manner while maintaining the anonymity and safety of the individual

a. The chatbot should be capable of addressing various inquiries, providing timely assistance, and facilitating seamless interaction between the public and law enforcement agencies.

b. It should be available in both Mizo and English language, default being the Mizo language, with the option to choose English.

c. The Application should provide the access to the authorised users with password protection at various level, in order to monitor the response and performance for instance at District Level, Range Level and entire State level, etc.

d. The application must have the feature in which when a sensitive information is being provided by some individual, it should show as a pop-up message to some pre-decided individual to ensure timely action on it.

These are the few broad aspects that are required in the application the other requirements can be added further on the application. This feature of future add-ons should also be available in the proposed application

The primary objective is to empower police departments with a scalable, accessible, and user-friendly digital solution that fosters trust, transparency, and collaboration within the community

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**PROBLEM STATEMENT 3**

**Social Media Monitoring (SMM) Tool**

Social media is where most of the online activities are taking place; hence it has become a major hub for cybercrime such as cyber frauds, social engineering, cyber bullying, cyber attacks, cyber terrorism etc. Monitoring of social media platforms has thus become a necessary cyber defence strategy for Law Enforcement Agencies (LEAs).

The problem statement involves developing a Social Media Monitoring (SMM) tool which has the following features (more additions can be done at the developer’s end):-

• Feature of keyword based search and analysis. Some of the features to include:-

o Search by using Boolean operators (AND, OR and NOT)

o Phrase search

• Ability to provide filters to clean-up, group, mark and delete collected mentions. Some examples include:-

o Filter or group by geography

o Filter or group by language

• Analysing the metrics of volume, engagement, reach, sentiment and influence of social media mentions

• Detection of a crisis situation by the use of sentiment analysis and daily mention monitoring

• Ability to provide:-

* Quantitative social media measuring – counting the volume of specific type of content on social media
* Qualitative social media measuring – accessing the opinions and beliefs of content on social media

• The ability to do the above mentioned task in both English as well as Mizo language

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**PROBLEM STATEMENT 4**

**Crime Dashboard**

2(two) reports are generated at the Police Station level on a daily basis viz. PS Daily report and Arrested persons report. Presently these two reports are submitted manually to Police Headquarters which is then manually compiled for perusal of the DGP. The task is to create an app (mobile or web based) to make these reports entirely paperless.

* Reports will be entered or uploaded at the police station level
* Compliance of stipulated time for uploading of report (say 8.00 am) should be flagged
* There will be 5 user roles viz. PS, SDPO, SP, DIG, DGP-IGP
* SDPO (supervising 2 or more Police Stations) will view report of all Police Stations under his jurisdiction, SP (Supervising 2 or more SDPOs) will view reports of under his jurisdiction, DIG (supervising 2 or more SPs) will view reports under all SPs within his control and DGP-IGP will view reports of all PS.
* App should be able to provide daily, weekly and monthly reports which can be exported in pdf format
* Additional search and reporting features based on selected fields to be included for analysis of data generated at the Police Station.

Sample reports enclosed in Annexure I & II

Utilizing the above reports and adding additional user inputs, an interactive dashboard may be designed to display the crime statistics in Mizoram for accessing key performance indicators readily. It may have the following features:

1. Crime-head wise analysis of the cases registered.

2. Investigating officer’s wise distribution of cases.

3. Feature for tracking the status of the case along its life cycle including registration, status of investigation and status of trial.

4. Feature for temporal analysis of cases by including a filter to select date and time or otherwise.

5. Feature for aggregation of the above mentioned information at following levels:

a. State level

b. Range level

c. District level

d. Sub-division level

e. Police station level

6. Crime map for of visualisation of crime pattern (

7. Bail status of accused and generation of pop-up alert on eligibility of default bail, if any.

Focus may be put on as minimal data collection as required and simpler user interface.

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