QnA

● **What is the problem you are trying to solve?** (Do you have any supporting statistics from reliable sources, if so please do share.)
We are looking for Digital Solutions in combating bribery. The problem is simple: eliminate corruption from the public delivery system. In this, we specifically target petty corruption because it plagues India and other developing countries hollowing out the effectiveness of our public services.

● **How does your idea address the problem?**
We had a two faceted approach to solving the issue at hand. By reading several research papers, we decided that **crowdsourcing platform** and **Artificial intelligence** would be the way to go. We have built a WebApp as well as a Mobile App of the our portal **"CurbCorruption".**

Crowdsourcing Platform:
Such platforms have proven effective in other developing countries[1] [2]. Essentially, we are asking our user to submit reports if they have ever been asked a bribe or paid a bribe (can be anonymous). We collect this data and make it public and segregate and label it properly according to location, person-in-charge and department responsible. Relevant officers are sent regular notifications about the number of incidents, areas where it happened, amount asked etc. so they can take appropriate actions.

Artificial Intelligence:
We have made an early warning system based on the reports that we aggregate over time. Right now the model is not as accurate because it needs the user reports to function optimally. However, we have made a rudimentary **neural network** to make a prototype of the work we aim to do. We contend that corruption must be detected as soon as possible so that corrective and preventive measures may be taken. Upon reading research papers[3], we found that the level of **corruption depends on certain factors:** taxation of real estate, economic growth, the increase in real estate prices, the growing number of deposit institutions and nonfinancial firms, and the same political party remaining in power for long periods. Our model provides different profiles of corruption risk depending on the economic conditions of a region conditional on the timing of the prediction. These models have not been integrated with our platform yet and are in a different folder in our repository.

● **Who are the target customers?**
The application has been built to be used by government officials and anti-corruption bureau to control and curb corruption in their departments. An average user can:

1. Report complaint of an incident related to corruption
2. Access data about the number of complaints, total amount of bribes collected in any area by any department which will act as a naming and shaming tool for the government.

A government official logged onto our website can access the same data as the general public as well as receive notifications about increasing bribery incidents. They can also

access our early warning system to optimize their resource utilization and preemptively mitigate the possible corruption.

● **What makes your idea unique?**
Our **early warning system is an original idea.** Based on the research being done[4] in combating bribery, we made a neural network to predict. We report the probability of corruption cases on different time scenarios, so that anti-corruption measures can be tailored depending on the immediateness of such corrupt practices. We use the neural network approach, a particularly suitable method since it does not make assumptions about data distribution. Neural networks are quite powerful and flexible modeling devices that do not make restrictive assumptions on the data-generating process or the statistical laws concerning the relevant variables. Earlier, such networks have been made using Self Organizing Maps, we achieve similar results using non SOM based neural networks, making the model simpler in nature.
Furthermore, an integrated complaints referral mechanism has never been deployed by the government of India, if our team gets selected for SIH it would be the first time such a portal would be deployed by GoI.

● **What are the geographies, do you think the idea would be suitable for?**
Since we rely on the ability of the user being educated and aware enough to make a complaint, our idea would best be implemented in cities.

● **What are the risks associated with your idea and how can you mitigate it?**
Since we provide the option of being anonymous, bogus or unreliable reports can throw off our entire follow-up mechanism as well as the neural network.
To mitigate this issue, we have built another neural network to grant every anonymous report a degree of reliability. If the user in not anonymous and provides us with their AADHAAR number, the system will assume that his/her report is 100% reliable and every anonymous report that is submitted in a nearby area under the same department will be checked against the 100% reliable report by our ML algorithm and be grant a degree of reliability. This model has not yet been integrated with our portal and is in a separate folder.

● **Who are the stakeholders involved in order to bring this idea/product/service to the market?** (Ex: State govt, Department of trade and taxes, pollution control board, Manufacturers)
This idea only works effectively when it is implemented by the GoI because they have the ultimate authority of overlooking corruption cases and can take proportional follow-ups on the data we are aggregating.
Another major stakeholder is the actual user base who submits reports, we need to past an inflection point of reports for our model to generate reliable data.