Product/Idea

- **What is the problem you are trying to solve?**
  The aim of the project is to authenticate a user using gestures. The organization wants to completely remove the use of keyboard from ATM kiosks and instead use hand gestures to recognize the identity of the user due to security reasons. Our model has been trained to verify a user based on a few gestures and based on that give account details of the user

- **How does your idea address** the **problem?**
  Our model has been trained to verify a user based on a few gestures and based on that give account details of the user. For this project we have used **deep learning and convolutional neural networks** with 4 hidden layers which have been developed using Python.

- **Who are the target customers?**
  Anyone having a bank account would be our target customer that is almost one-third of the world's population.

- **What makes your idea unique?**
  We have developed a new method of user authentication. The use of gestures can be done whenever the user identity is to be verified. This would help make our systems very secure and fool proof. For the banking system, as our target audience is so large, it would change the way we use our ATM.

- **Do you have a revenue generation model? If so please do share.**
  Revenue generation is not certain but definitely company can save a lot of hardware costs. The user can authenticate the identity and perform banking transactions by entering pin using the mobile camera and hence the companies would be able to save a lot of their hardware costs, maintaining the hardware and updating the hardware with time. As far as revenue is concerned, the companies can charge a nominal fee if a user wants a 2 step authentication process which means that he would like to enter the pin using gestures as well as a physical keypad.

- **What are the geographies, do you think the idea would be suitable for?**
  Since data connectivity is available even in remote areas, the application can be used anywhere in the world. It has no bounds.

- **What are the risks associated with your idea and how can you mitigate it?**
  Remembering of gestures could be an issue in the beginning. The gestures would be shown on the screen as well as the users can even play a tutorial video. They can even see the tutorial video on any bank website as well.

- **Who are the stakeholders involved in order to take bring this idea/product/service to the market?**

Everyone who uses a bank account, the organization(NCR Corporation Private Limited), the companies who have to implement and the developers are the stakeholders to implement the idea on a large scale.

Intellectual Property Assessment

- **Is your idea patentable or patented?**
  We haven't explored this aspect yet.

- **Is your idea built existing work? If so how is it different?**
  This idea is completely new.

Prototype/ Proof of Concept

- **What is the nature of the prototype/ proof of concept, you would be able to submit?**
  GitHub repository
  Link:

- **Have you completed pilot tests for your prototype/POC? If so please share.**
  Prototype tests have been successfully done. Pilot tests would be done later.

- **What is the approximate cost of developing the prototype?**
  Hosting and miscellaneous expense would be approximately Rs 15000 per annum. This doesn't include the cost of developers.

Supporting details

- **What regulatory requirements have to be met to bring the idea to life?**
  Not applicable for this project.

- **Do you have a business plan/ commercialization strategy? If so please share.**
  Not at this stage.

- **What is rough estimate of manufacturing/operational costs?**
  Hosting and miscellaneous expense would be approximately Rs 15000 per annum. This doesn't include the cost of developers and the maintenance costs.

- **What is volume of products/ amount of revenue do you expect to make in the first year?**
  Yet to be evaluated.