

## **Problem Statement: Interactive voice bot for user engagement**

Key problem statement: How can we instantly and effectively engage with millions of customers at zero marginal cost. Teams are required to build an interactive voice bot that is expected to have human-grade voice synthesis and voice understanding. It should have NLP-based understanding of context and user intent (trained on domain-specific data) & have ability to understand mixed-language speech.

- Preferred tech: Open source

- Bonus: Multi-lingual bot (english, hindi), Fintech-specific domain training

## **Deliverables/Expectations for Level 2 (Online Problem Statement Idea Brief Submission)**

An algorithm/approach/system component diagrams with block diagrams and detailed explanation to accomplish the solution for the problem statement of a real-time conversational bot.

Please provide definitions and workings of the core components of the system. You can give references if any part of work is inspired by some previous work.

The solution should work for at least one end user scenario described in the problem statement. Considerations of different settings, edge cases, fintech-focused bot training, understanding of mixed-language speech (English + any one Indian language), will be given extra points.

You can use any open source data set for training purposes. You can also create your own sample conversation flows / dialog scripts for the purposes of the demonstration. Some sample scenarios are listed below. These are only samples, and the expectation is that the voice bot can handle at least one of these scenarios very well):

1. The voice bot conversing with a customer to check why the customer has not paid his credit card dues, and suggest suitable follow-up options
2. The voice bot conversing with a customer to sell a credit card
3. The voice bot conversing with a customer to address a specific issue related to an ecommerce order
4. The voice bot conversing with a customer to gather user feedback on a specific topic (ex. New feature in the app, new industry news, focused customer survey, etc.)

The solution should run in real time, and will be tested and evaluated with the voice bot talking to a real human on the other side (i.e. just like real-world usage).