

## Enterprise AI

### USE CASE:

With Superior Customer Experience of paramount importance for all business operations, it has become imperative to treat this process with utmost care infused with latest AI/ML technologies. It is expected to drive the customer experience to a new level of awareness and acceptance. The sea of technologies changes, have also brought to the table, newer and better aspects towards our customer experience. These customers include the internal as well as external customers.

Following are some of the business operations processes that could to be considered

1. How to determine customer sentiments from various different media like - Social media, Audio Calls, Video Calls, Images, Emails & Chats?
2. How to ascertain top of mind recall for customers through effective brand building exercises?
3. How to interact with customers to provide quick and effortless solutions to their problems?
4. How to provide quick access to Knowledge Base for our Customers and Agents?
5. How to analyse and learn from buying behaviour to generate next best offer?
6. How to ascertain customer retention and ensure lesser churn?
7. How to derive AI-based Customer Segmentation?
8. How to manage customer touchpoints?
9. How to evaluate customer feedback?
10. How to engage with the customer?

### TASKS:

#### **Objective:**

Enhance the customer satisfaction Index and to ensure customer stickiness to your organization, thereby maximizing revenue and optimizing costs. Infuse emerging technologies to draw, engage and retain new era of tech savvy (and demanding) set of customers.

Create UI that would allow you to provide a Structured (Data based) or/and Unstructured (Audio/Video/Text/Image) input, as the case may be, to your AI solution.

Create the AI algorithm that would address your chosen use case and draw insights from the content.

Create a backend database or a content store if required for your use case.

Create an Outcome UI that would showcase the results from your AI algorithms. Data visualization/analytics can also be shown in the UI (like charts, graph, tables etc...)

**CONSIDERATIONS:**

Students may consider one or multiple (or related processes) mentioned above for development process for their application.
---

Students should leverage the open source-based Machine Learning, Deep Learning and their associated libraries & technologies.
---

Students can leverage Cloud AI and ML APIs as well to power the application for better dynamic responses.
---

All code should be preferably Python based. However, UI & databases could be any open-source technologies.
--

**Representative Examples:**

Examples of some of the problem statements that would potentially impact the overall customer experience are listed below. It is only for student's reference. Students can choose any problem statement that they think relevant and it need not be part of this list.

1. How to provide trend analysis for incidents that include past historical incident occurrences as well as predict the future occurrences?
2. How might we use technology to generate product images or combination of products images based on text description?
3. How to correlate multiple problems occurring at any given time to accurately ascertain the root cause?
4. How to identify string of printed Alphanumerical characters from a photograph accurately?
5. How to provide end to end GPU driven architecture for quicker learning & inference?
6. How to provide remote assistance to solve problems with faulty equipment's?
7. Generating Image Description - What is happening inside an image?
8. How to expedite Customer onboarding for Insurance industry?
9. How to analyse sentiments from audio, video, text, image, etc?
10. How to provide the best personalized offer to a customer?
11. How to Summarize a video clipping, as text?
12. How to Summarize a text document?

**POINTS TO REMEMBER:**

The below listed will be the upcoming events/ process which will be carried on from the next week onwards regarding Inframind Season 4 Round 2,

- For each and every tower there will be webinar session for the students for explaining about the problem statement, where the webinar link will be shared on via emails, Campus commune channels and text messages.
- Also, for further more details regarding Inframind Season 4 students can visit the “Inframind Season 4 “and “IT Infrastructure Services - Powering IT Infrastructure Globally - Be the Future!” channels in Campus Commune.
- If students have any queries during webinar session there will be assigned a mentor for that tower. Students can feel free to ask any queries regarding that tower.
- For Any queries, login to your campus commune portal and navigate to the link that is provided below, which is a Forum Communication channel for Inframind Season 4 Round 2.

<https://campuscommune.tcs.com/channels/it-infrastructure-services-powering-it-infrastruct/discussions/inframind-season-iv-round-ii-query-corner>

- **Malpractice will be strictly monitored for each and every solution document received. If any solution document found to be suspicious of malpractice, either copied or duplicated from another participant, the corresponding participants will be disqualified and cannot proceed with further Rounds of Inframind Season 4.**
- **Upload your Video Presentation of the prototype in YouTube and attach the link URL of that video in Solution Document. Also, make sure in the Solution Document you submit has the Prototype Video Presentation Link. If the Document is found with no YouTube Link of your Prototype’s Video Presentation then the corresponding person will be disqualified and cannot proceed with further Rounds of Inframind Season 4.**
- **While Uploading the Prototype Presentation Video to YouTube, make sure the **Visibility** of your video is set to **Unlisted**.**