**Event Hackathon**

**Create a video inference engine to recognize common objects in a room.**

Context and Task: Build or modify algorithms capable of detecting common objects are a significant module in the development of an anti-theft system that may be used as part of a surveillance system for major corporations and retail outlets. We challenge you to create a simple video inference engine that can recognize the most objects in the supplied video while maintaining the highest feasible FPS.

Test Dataset link: [Hackathon challenge video.mp4](https://bostonin-my.sharepoint.com/:v:/g/personal/krishna_mouli_bostonindia_in/EVWm3XeNV1xOqIFhxHEZ0CwBZGA00md5xdNXSfmGHacHOA?e=5sTOgP)

The organizer will provide a beginning code, which participants must utilize to construct the application.

Beginner Code for Object Detection:

**Guide**

You can free to choose to use any framework like Tensorflow, Pytorch or opencv/openvinio to build and run the video for detection objects on a hotel room. Please feel free to collect data related to items present in the video for inferencing, if you are collecting the data ensure that you have to enclose the dataset as a zip file during submission.

**Using pretrained Models**

Tensorflow API Tutorial Link: <https://www.tensorflow.org/hub/tutorials/object_detection>

**Submission Format:** Participants must submit their code in IPYNB format together with a sample video provided by the organizer; the organiser will test the submitted code on a test video. The key performance indicators (KPIs) will be FPS and the number of objects accurately recognized by the programme.

**Condition for the hackathon:**

* Participants are permitted to establish groups of three to four people.
* At the end of the workshop, participants in the event hackathon must register with the workshop organizer.
* To construct the application, the teams must leverage the Intel DevCloud and the oneAPI AI Analytics toolkit.
* Winners will need to submit a blog article on oneAPI AI Analytics Toolkit including the concepts learned at the hackathon and during the workshop. The submission needs to go on Medium and Github.
* Winners would need to share the blog url with [kavita.aroor@intel.com](mailto:kavita.aroor@intel.com) no later than 7th October 2022.
* Please note we will need to collect your Full name, email ID and physical mailing address to courier the prizes post the event. The prizes will be delivered by 15th October 22 to your address.

**Submission Deadline:**

The teams will need to submit their entries to [kavita.aroor@intel.com](mailto:kavita.aroor@intel.com) by 10:00 am on 22nd September and the results will be announced at 4 PM on 22nd September at the Cypher conference main ball room.