# 1. Scope & Brief:

The objective is to minimize OOS (out of stock) at stores and improve overall customer experience and satisfaction by ensuring the products are always available on shelves as well as in stock with the stores. The solution will not only track the items availability on the shelves in real time but also predict the expected OOS in advance to ensure enough supplies are available at all times enabling synchronization between suppliers and retailers.

The solution uses computer vision technique to track product depletion from the shelf in near real-time and based on the product run rate at particular hour which is being calculated using the transaction data a threshold is decided to trigger the store management to refill the shelf for particular products.

As different product has different run rate

For product to

# 2. Data Gathering & Augmentation:

asdfasdf

* 1. Data sources:

afdasdf

### Computer Vision:

dfadsf

### Transaction data source:

dsfasdf

2.2 Data Augmentation:

1. For video ….
2. For transaction data

# 3. Challenges in Solution Development:

Below are the following challenges we face:

1. Data gathering was a challenge in terms of video and transaction data also. The video data we have is of timelapse video which makes it difficult to …. and the trasacation data which is taken from Kaggle is not exactly as per our requirement so we have to augment it as per our need which took some time.
2. The approach towards the solution we presented in the idea submission will need some dedicated time and effort which we try our best but given the circumstances and work from home we are not able to develop the solution entirely what we thought although it is possible if more times has been given.

# 4. Current Solution Approach:

4.1 Data Augmentation

## 4.2 Technology used:

## 4.3 Computer vision

## 4.4 Predictive:

## 4.5 Solution architecture

Flow diagram

# 5. Work done so far:

First we have identified the fast moving

# 6. What more we could have done:

Based on the plan we want to integrate the solution with pipeline but unfortunately because each of us working independently for different components of the solution we are unable to and we are using

# 7. Limitations with existing Solution:

Is a person pick up the product from one aisle and drop it to another aisle

# 8. Impact Analysis & Observations:

# 9. Way Forward/Future Work:

To check the store layout desing with captured data etc

What could have been done