

**Project Design Phase-I**  
**Proposed Solution Template**

Date	18 May 2023
Team ID	PBL-NT-GP--2691-1680616670
Project Name	Go No Queue-Rush Estimator for corporate cafeteria

**Proposed Solution:**

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	A corporate cafeteria serves hundreds of employee's during peak hours often delaying the order which results in longer queues
2.	Idea / Solution description	We implement the solution using an IoT device integrated with a camera module which is connected with IBM IoT platform which communicates with node red. By the Web UI through which the end user gets the people count.
3.	Novelty / Uniqueness	<ol style="list-style-type: none"><li>1. Integration with IBM IoT platform</li><li>2. Node-RED is utilized as the backend to handle data from IoT device</li><li>3. Web based User Interface is implemented</li></ol>
4.	Social Impact / Customer Satisfaction	<ol style="list-style-type: none"><li>1. Improved customer Experience</li><li>2. Efficient resource allocation</li><li>3. Reduced queue time</li><li>4. Improved planning</li></ol>
5.	Business Model (Revenue Model)	<ol style="list-style-type: none"><li>1. Installation and Set-up up fee</li><li>2. Yearly basis subscription fee</li><li>3. Extra cost for UI interface specific design</li><li>4. Additional hardware: Multiple IoT device for various regions of the cafeteria</li></ol>
6.	Scalability of the Solution	<ol style="list-style-type: none"><li>1. Handling increased user base</li><li>2. Optimal performance and response time is to be maintained</li><li>3. By leveraging cloud based infrastructure</li><li>4. Scaled to manage multiple queues in the cafeteria</li></ol>