**Frozen Food Documentation**

**User Module**

**All User**

Users will be registered using their HRIS credentials. Also, a user will be assigned to a G, C, and L. The role will be shown based on G, C, and L.

**All Role**

The role can be created with multiple permission and it will be for specific G, C, and L.

**Location Module**

In the location module user will create G-wise C and C-wise L.

**System Module**

**All Device**

There are two types of devices. Blast Freeze and Pre-Cooler. In a single room, 3 blast freeze and 1 pre-cooler stay.

**Trolley**

There are unique trolleys that will carry products and raw items and insert them into the blast freezer.

**Products**

Raw items and products are added from here. There are two types of products which are Local and Exported. After adding the product, it needs to set the location.

**Production Module**

**Freezer**

You can imagine a freezer as a room. The freezer will be created with some devices for a specific G, C, and L.

**Blast Freezer Entry**

Products and raw items are stored in a trolley with the quantity in KG. The trolley with products stays in a blast freezer for a limited time. After ending the time, it will blink. The time under 5 mi shows a yellow warning and after the time is over it will show a red alert. One trolley will carry only one type of product. On the out-trolley page, the trolley is outed from the blast freezer shown. The next part is cartooning creation. Only one type of product is stored in a cartoon but it can take multiple trolley products.

**Cartoon List**

In the cartoon list, you can see the created cartoon from the out-trolley step. There is a difference between actual weight and weight. Suppose I have put 10 kg product in a trolley and inserted it into a blast freezer. After outing the from blast freezer, the weight is reduced. The reduced weight is called actual weight and the weight is calculated based on the input value which is given in the blast freezer entry. You can edit a cartoon, add new trolley products or remove existing trolley products if the entry process will wrong.

**Temperature Log Module**

**Log Sheet**

The device temperature data is given from PLC. PHP cannot connect with PLC. We created a new desktop software which is given in the project root directory. That software takes data from PLC and hit an API which is created in ApiController and stores the data in the database. The temperature table in separated in month wise. Starting with a new month created a new table.

**All Short Form**

G = Group

C = Companies

L = Locations

PLC = Programmable logic controller

**Developers Need to Know**

The project is developed in modular architecture. The method and controllers are not depending on each other. Each module and sub-module have a permission option. Controllers, Models, Resources, and Routes are module-wise separated. Variables, Methods are declared with snake case. For the project structure please follow the link:

https://docs.google.com/document/d/1-zio0Pd-axXib9s0NLmaVNK85VcUvPGfrCGrqu2H6is/edit?usp=sharing