**Assignment I**

**PS07 Freezer Room**

**Assignment Set Number: PS07 Freezer Room**

**Group Name: Group-21**

**Contribution Table:**

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# Introduction

## Problem Definition

An organization has a unique freezer room with easy-to-adjust temperature, lock with keys, manual defrost option, and basket or adjustable shelf etc. Employees of this organization keep moving in and out of the freezer room on work. Organization uses a unique employee ID and smart card to identify their employee’s movement to the freezer room. Whenever the employee swipes his card to the freezer room employee ID is recorded. When an employee enters the room for the first time, the counter is set to 1. From then onwards, each time an employee swipes out of the room the counter is incremented and incremented again when he enters back. If the counter is odd, it means the employee is inside the freezer room and if the counter is even, it means he/she is out of the room

The organization uses this data to perform the following analytics:

1. How many employees entered the freezer room today?
2. Number of employees that have entered the freezer room today and are currently inside?
3. Check if a specific employee is inside the freezer room or outside?
4. List of employees that have swiped (in or out) more than x number of times?
5. Which employee ids within a range of IDs entered the freezer room, the swipe counter for them, and whether they are inside or outside the freezer room?

# Choice of Data Structure

As the problem involves

# Iterating over the Data Structure

We use recursion for this

# Runtime Analysis

This will contain the Bigoh notation

# Results

This will have screenshot of results