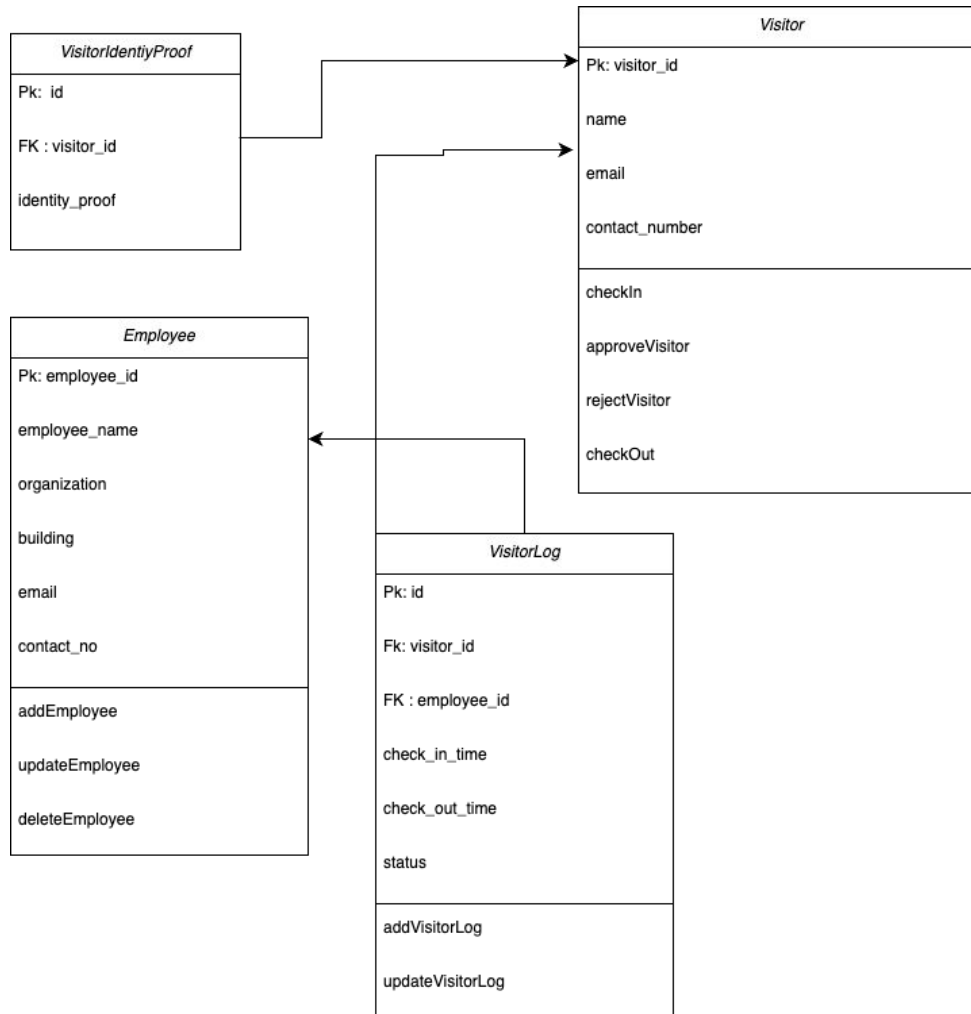


# Visitor Management System

Bhargav Jangam



# Table Design

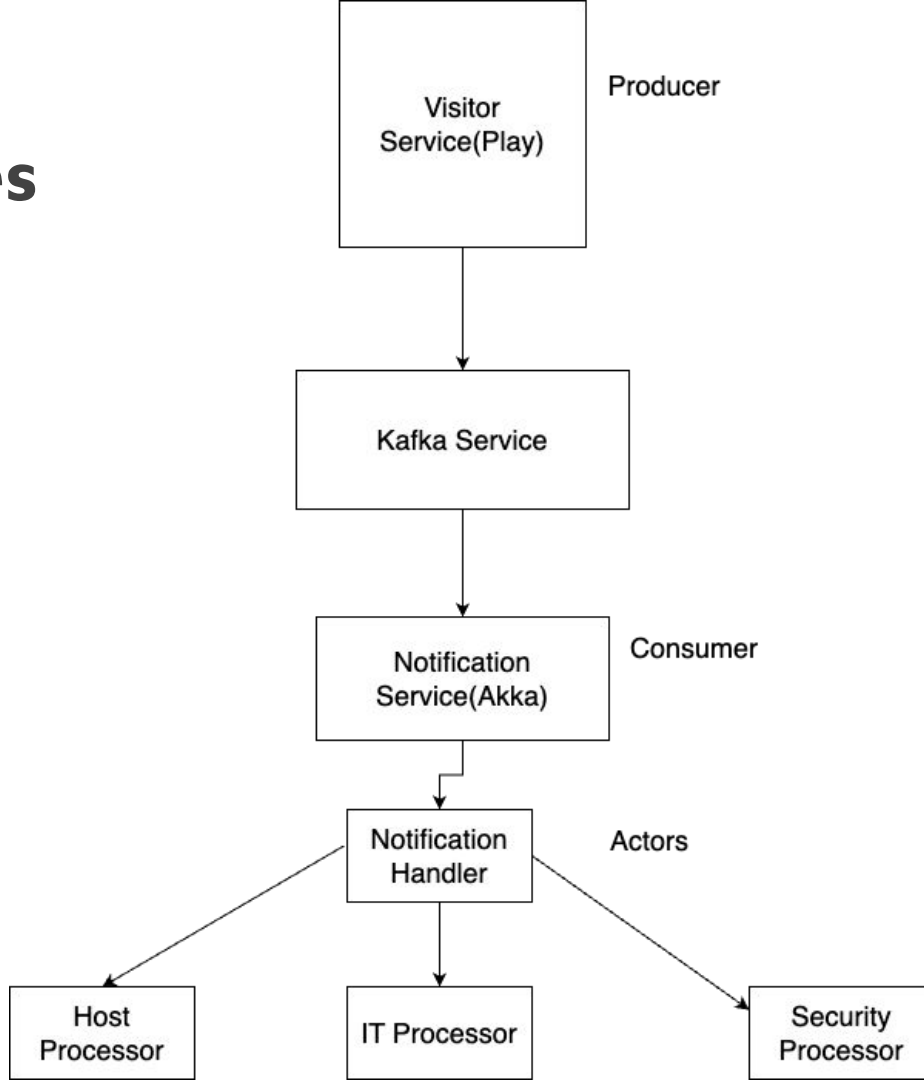




# Services and Actors

- 1) Visitor Service: Implemented using the Play Framework, this service handles all REST APIs and produces messages to the Kafka service.
- 2) Kafka Service: Facilitates reliable communication between services by managing message queues.
- 3) Notification Service: Built with Akka, this service sends notifications to various users. It comprises four actors, with NotificationHandler consuming messages from Kafka and forwarding them to ItProcessor, HostProcessor, and SecurityProcessor.

# Services Flow



# Logic Flow

## 1. Visitor Registration (Pending Status)

- The visitor provides essential details such as name, host name, and host email.
- Upon registration, the visitor's status is set to pending.
- The **VisitorService** sends a Kafka message to the **NotificationService** about the pending visitor

## 2. Host Notification and Approval/Rejection

- The host receives an email notifying them of the visitor's arrival and is prompted to approve or reject.
- The visitor's status remains pending until the host's decision is received.

## 3. Approval: Visitor Check-In

- If the host approves the visitor, the status is updated to checked-in.
- Kafka messages are sent to through the respective actors:
  - Security Team: Notified of the visitor's entry.
  - Visitor: Receives entry confirmation and Wi-Fi credentials.
  - Host: Receives acknowledgment of approval.

#### 4. Rejection: Visitor Denied Entry

- If the host rejects the visitor, the status is updated to rejected.
- Kafka messages are sent to:
  - Security Team: Notified of the visitor's denied entry.
  - Visitor: Receives denial of entry email and Wi-Fi access is revoked.
  - Host: Receives acknowledgment of rejection.

#### 5. Visitor Check-Out

- When the visitor checks out, their status is updated to checked-out.
- A Kafka message is produced, notifying:
  - Host: Acknowledged of visitor departure.
  - Security Team: Notified of visitor exit.
  - Visitor: Receives confirmation of check-out.