Visitor Management System - High-Level Architecture

1. System Overview

The Visitor Management System (VMS) helps organizations track visitors entering and exiting their premises.

It captures visitor details, records check-in and check-out times, assigns a host, and provides security and reporting functionalities.

Key Features:

- Visitor Registration (Check-in & Check-out)

- Host Assignment (Employee hosting the visitor)

- Visitor Status Tracking (Checked In, Checked Out, Overdue)

- Security Controls (Role-based access for Receptionist, Security, Admin)

- Reports & Dashboards (Real-time visitor logs, trends, and analytics)

2. Data Model - Multiple Records & Relationships

A) Primary Record Types:

- Visitor: Stores visitor details and their check-in/check-out info.

- Host Employee: Stores information about employees hosting visitors.

- Visit Log: Tracks visitor activity in detail for security.

B) Relationships Between Record Types:

- Visitor -> Assigned to -> Host Employee (Many-to-One)

- Visitor -> Has Visit Log -> Visit Log (One-to-Many)

- Host Employee -> Can host -> Visitor (One-to-Many)

3. User Interfaces (Forms & Dashboards)

A) Visitor Check-in Form: Captures visitor name, company, purpose, host, check-in time.

B) Visitor Check-out Form: Captures check-out time, updates status to 'Checked Out'.

C) Visitor Details Page: Displays visitor information, host details, and visit logs.

D) Visitor Dashboard: Lists all visitors with search, filter, and sorting options.

4. Process Models (Workflows)

A) Visitor Check-in Process:

1. Receptionist fills the Check-in Form.

2. Visitor record is created with 'Checked In' status.

3. Notification is sent to the Host Employee.

4. (Optional) Security approves entry.

B) Visitor Check-out Process:

1. Receptionist fills the Check-out Form.

2. Visitor record is updated to 'Checked Out'.

3. Log entry is recorded in Visit Log.

C) Overdue Visitor Alert (Automated Rule):

- If a visitor does not check out within a predefined time:

  - Send an alert to security.

  - Update status to 'Overdue'.

5. Security & Access Control

- Receptionist: Check-in/check-out visitors, manage visitor records.

- Security: View visitor records and logs, approve high-risk visitors.

- Admin: Full access to all records, reports, and configurations.

6. Reports & Analytics

A) Visitor Log Report: Shows daily, weekly, and monthly visitor activity.

B) Active Visitors Dashboard: Displays all currently checked-in visitors, highlights overdue visitors.

C) Host-wise Visitor Analysis: Shows which employees receive the most visitors.

7. Deployment & Testing Plan

A) Testing Scenarios:

- Check-in a visitor and verify database updates.

- Check-out a visitor and ensure status changes.

- Test overdue visitor alerts.

- Verify role-based security access.

B) Deployment Steps:

1. Move configurations to UAT (User Acceptance Testing).

2. Conduct user training for receptionists and security.

3. Deploy to production after successful testing.

8. Additional Features (Optional Enhancements)

- QR Code-based Check-in/Check-out (Scan visitor badge for faster processing).

- Integration with Access Control Systems (Auto-open doors for authorized visitors).

- Self-Check-in Kiosk (Visitors register using a tablet).

9. Conclusion

This Visitor Management System built in Appian using Record Types ensures efficient visitor tracking, enhanced security, and automated workflows.

Would you like any specific enhancements, such as visitor badge printing or real-time notifications?