**Proximity**

Campus of Society or Corporate house shall be divided into zones and each zone shall be regarded as separate entity.

|  |
| --- |
| **Campus** |
| ID Number of Zones Security Contact Head RWA Head |

|  |
| --- |
| **Zone** |
| ZID Name Type(Play-Area/Flat/Pool etc) Grade from Security -Prospective Security Incharge of Zone |

Any incident reporting/handling on dashboard will be based upon Zone on which particular incident has occurred. Hardware like CCTV cameras, RFID readers, iOT sensors shall be installed and monitored zone wise.

Division of society onto zones will be crucial point of decision making.

In case of Residential society each Tower will be regarded as separate zone.

There will be 2 main entities in this case:

|  |
| --- |
| **Flat Info** |
| Flat Number  Zone-ID  Floor-ID Owner Resident -Type(Owner/Tenants)  Primary Resident-ID |

|  |
| --- |
| **Floor** |
| Floor-ID Zone-ID Security Incharge |

All information regarding people residing in society could be related to entity FLAT. Resident of society could be Owner or Tenant. Database will store data of Owner, Tenant and Primary contact details.

Actors in play :

1. Residents
   1. Owners
   2. Tenants
2. RWA Position holders
3. Society Maintenance and Official Staff
4. Security Provider agency
5. Allocated Security personnel
6. Verified Domestic helps (maid, cooks etc) and maintenance staff (plumber, scrap dealer, electricians etc)
7. Guests and Visitors
8. Hardware Equipments

**Resident:**

Database shall store data related to Residents of society which can further be used to provide feature functionalities. Owner’s data will always be kept in DB irrespective they are living in society or not. Single owner can have multiple Flats.

|  |
| --- |
| **Resident** |
| ID  Name  Resident-Type(Owner/Tenants)  Type(Primary or Secondary) Flat-Number Mobile Number Alternate Number Emergency  Contact Number Number of Family Members |

**RWA Position Holders :**

RWA holds important position in society management and crucial for managing Security of society.

|  |  |  |  |
| --- | --- | --- | --- |
| **Resident-ID** | **Designation** | **Term Start Date** | **Term End Date** |
| R-112 | Secretary |  |  |
| R-111 | Chief |  |  |
| R-121 | Cashier |  |  |
| R-221 | Others |  |  |

**Society Maintenance and Official Staff**

Application will keep data related to staff working in society that will be used to keep in-out track.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Staff-ID** | **Name** | **Mobile Number** | **Designation** | **Photo-ID url** |
| sid-101 | Ram Kumar | 9999999 | Maintaince   Help desk |  |
| sid-102 | Vijay | 94949494 | Clerk |  |
| sid-103 | Shyam | 9484948498 | Manager |  |

**Domestic Help :**

Database of application will keep all relevant information regarding Domestic help working in premises of society :

|  |
| --- |
| **Domestic Help (DH-ID)** |
| ID Name Verification Status Mobile Number Reference DH-ID |

Working information of Domestic Staff will be featured in DB that shall be used for various related features:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Flat-ID** | **Domestic Help – ID** | **Work type** | **In – time** | **Out Time** |
| P101 | DH-101 |  |  |  |
| P101 | DH-102 |  |  |  |
| P102 | DH-101 |  |  |  |

Application will keep historical data related to domestic staff this will help to know any blacklisted domestic help in future :

|  |  |  |
| --- | --- | --- |
| **DH-ID** | **Grade** | **Incident Reported** |
| DH-101 | Good/Bad /BlackListed | Theft |

**Vendors in Society:**

Else than Guests there is one more category that are frequent visitors to society like Carpentors/Plumbers etc :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Vendor-ID** | **Name** | **ServiceProvider** | **Work Category** | **Mobile  Number** |
|  |  | (Name of Shop  or Company) | Carpentor/ Plumber etc |  |

Application will keep track of every visit to society premises :

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Visit ID (VV-ID)** | **Vendor-ID** | **Flat –id** | **Confirmation  received** | **Date** | **in-time** | **out-time** | **Expected  out time** |
|  |  |  | via inter-com/ Mobile App /No |  |  |  |  |

Application will keep historical data of vendor and their visits:

|  |  |  |  |
| --- | --- | --- | --- |
| **Vendor - ID** | **VV-ID** | **Grade** | **Compliant** |
| V-919 | VV-101 | Good/Blacklist |  |

**Guest/Visitors:**

|  |  |  |
| --- | --- | --- |
| **Guest-Info** |  | **Visit History** |
| ID Type Visiting Resident-id Name Photo-Id Mobile Number Vehicle Number Make of Vehicle Grade |  | ID GuestVisit ID Visit Grade Incident Related to Visit |

|  |
| --- |
| **Guest Visit** |
| ID Guest-ID Status(Complete/Ongoing) Visiting Resident-id Image-id of issued BarCode In-Time and Date Expected out Time and Date llocated ParkingId Parking Release time and date Special Request Resident Confirmation Obtained Ongoing Notification-id Visit Grade |

**Hardware Equipments:**

Application keeps all information regarding hardware like CCTV/RFID readers and Sensors installed in society. Information shall be used to generate alerts and Graphical representation of Hardware health

|  |
| --- |
| **Hardware** |
| Hardware-ID Type Installed Zone-ID(ZID) Floor-ID Installation Date Due Service Date Due Replacement Date Grade Comments |

**Parking**

Application will keep track of Parking slots available and will optimize guest parking allocation:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Parking-id** | **Zone-ID** | **Parking Type** | **Parking  Vehicle Type** | **Parking  Status** | **Allotted  Flat-ID** | **Allotted  Guest-ID** | **In- time/date** | **out- time/date** |
|  |  | Resident/ Guest | Two-wheeler/ LMV HMV |  |  |  |  |  |

**Alerts:**

**Alert**

Alerts can be generated by network of different hardware configured in society or by various actors like Residents/Security Guards /RWA members.

DB shall keep logs of all alerts generated for specified time.

This information can be further used to develop features lile notifying Dashboard and can be used for graphical representation of Alerts generated .

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Alert\_id** | | **Quality  of alert** | **Comments** | |
|  | | Genuine/ False Alarm |  | |
| **Alert\_id** | **Alert Type** | | | **Source of Alert** | | **ID of Source** | **Time of Alert** | **Date** | **Status** |
|  |  | | | Resident/RWA/Security/AI /Device | | Resident-id/ Hardware-id/ SecurityGaurd-id |  |  | Resolved/ Ongoing |

Feature:

**Visitor Management System:**

Involved interfaces:

1. Mobile Application:

* Security Guard
* Resident

1. Dashboard

**Features of Dashboard:**

|  |
| --- |
| **Guest Visit** |
| ID Guest-ID Visiting Resident-id Image-id of issued *BarCode* In-Time-Date Expected Out time and date Allotted *ParkingId* Parking Release time Special Request Resident Confirmation Obtained Ongoing *Notification-id* Visit Grade Incident reported in visit |

1. Details of Visit:

1. Details of Visiting Guest:

|  |
| --- |
| **Guest-Info** |
| ID Type Visiting Resident-id Name Photo-Id Mobile Number Vehicle Number Make of Vehicle Grade |

1. Details of Notifications sent to Resident about Visit:

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Guest Visit-ID** | **Type of Notification** | **Status of Notification** |
|  |  |  |  |

|  |
| --- |
| **Type of Notification** |
| Arrival of Guest Need further approval Alert Guest Parking Time finished Others |

|  |
| --- |
| **Status Of Notification** |
| High Priority  No response required  Waiting for Response  No response from Resident  Resident positive response |

1. Historical Data of Visiting Guest :

|  |
| --- |
| **Visit History** |
| ID Guest-Visit ID |

**MAP of Dashboard**

Types of Maps required:

1. Overall Society/Corporate-Campus MAP.
2. Zone wise MAP. In case not available then application shall break overall map into Grid as per zone requirements.
3. Floor Map of each tower. (Can be developed by in-house artist)
4. Map of lift locations in society/campus. Shall be developed by artist in case not available with information provided.
5. Parking area map. Parking can have multiple zones, so zone wise map is required.

DB will keep information related to each zone.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Zone-ID** | **Position** | **Camera-ID** | **RFID-Reader** | **VoiceSensor** | **Temp Sensor** | **Head Guard-ID for Zone** |
| Zone1 | Position1 | Hardware-ID | Hardware-ID | Hardware-ID |  | G-101 |
| Zone2 | Position1 | Hardware-ID | Hardware-ID | Hardware-ID | Hardware-ID | G-201 |
| Zone1 | Position2 | Hardware-ID | Hardware-ID | Hardware-ID | Hardware-ID | G-101 |

Scope of ‘Position’ definition is wide. Single zone can be subdivided into positions depending upon architecture of society, for example, in case of society single tower can be regarded as zone and each floor as separate position.

**Alerts over MAP**

Representation in MAP: As per Dashboard document .

1. Panic Alert : could be generated by any of actors in play or by hardware like sensors / by Artificial Intelligence provided by system.
2. Hardware Malfunction Alert . This shall include Lifts , Sensors ,RFID readers
3. Security Position empty Alert.
4. Unusual High occupancy of particular Zone
5. Non-Permissible Occupancy by any of actors.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Alert\_id** | **Alert Type** | **Source of Alert** | **ID of Source** | **Time of Alert** | **Date** | **Status** |
|  |  | Resident/RWA/Security/AI /Device | Resident-id/ Hardware-id/ SecurityGaurd-id |  |  | Resolved/ Ongoing |

**Color Coding in MAP:**

As per Design Document of Dashboard.

Different Zones/Positions shall be represented by color coding scheme . Decision shall be dependent upon architecture of society.

Color coding for areas which are more vulnerable to breach.

Map shall be representing high occupancy of zone with different color coding scheme

**Graphical Representations:**

**Graphical Representation** form a powerful tool to analyze and communicate information.

Dashboard will be representing following set of data in Graphical form:

1. Entry-Exit Graph

Using data from ‘Guest-Visit’ Dashboard will represent data in

*Line-Graph* form. Application will use status of Complete against Ongoing visit to figure out trend mapping.

|  |
| --- |
| **Guest Visit** |
| ID Guest-ID Status(Complete/Ongoing) Visiting Resident-id Image-id of issued BarCode Date In-Time Out-Time Expected out time Allocated ParkingId Parking Release time Special Request Resident Confirmation Obtained Ongoing Notification-id |

1. Alerts

For purpose of analyzing behavior of alerts and to provide trends of alerts which can be used to take required steps, also use historical data comparison with present behavior of different aspects of security , application shall be representing data in Graphical Form.

Alerts shall be displayed with help of *color-coded bar graphs* and *line graphs.*

Alerts could be generated by

Employee/Visitor/Domestic Help/Unknown/Security Guard

Application shall display below types of alert Graphs:

* Access to non-permissible area or incident graph
* Panic Alert trend in comparison to historical data
* Occupancy alert of particular zone then usual
* Guest Parking usage of Resident trend

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Alert\_id** | **Alert Type** | **Source of Alert** | **ID of Source** | **Time of Alert** | **Date** | **Status** |
|  |  | Resident/RWA/Security/AI /Device | Resident-id/ Hardware-id/ SecurityGaurd-id |  |  | Resolved/ Ongoing |

1. **System generated**

Parking reserve time finished

Hardware Malfunction

Details of dashboard features and UI contents will be as per designs shared for Dashbpard