**SOCIETY MANAGEMENT SYSTEM**

**Data Requirements:**

The Society Management System aims at fulfilling the need of an efficient and reliable database system to manage day to day task and business of a housing society. The database design is suggested based on research and development of idea through survey as well as successful models implemented previously. The description that arises from this design phase serves as the basis for specifying the conceptual structure of the database. Here are the major characteristics of the society management system.

* The society has flats, owners, tenants and employees. Each flat is identified by a unique character and number combination and records of its current owner as well as previous owners is maintained. Each flat has a parking which has a parking-id and vehicle’s registration no. parked in it.
* Every owner owns a flat and can give his/her flat to tenants. Tenants have to pay rent to owner and have the flat for particular duration. Owner needs to pay maintenance bill to society.
* An owner can be a resident, chairman, secretary or a department head. The owners have dependents as their nominee. The chairman takes care of society as a whole and is reported by secretary. The secretary is reported by the department heads.
* The employees of the society report their respective department head. An employee can be-workers (sweeper, security, waterman, gardener, electrician, and event manager), staff or accountant. All the employees except the staff and accountant work in shifts and have particular area in society assigned. These employees work in their respective departments.
* The staff have different designations and maintain complaints made by tenants and owners. Each complaint has a unique complaint no. , status and date. The accountant maintains record of finance and reports to the secretary.

**Entity Sets:**

* The owner entity set-resident, chairman, secretary, department head- with common attributes name, phone number, aadhar no. ; and email.
* The tenant entity set, with attribute name, phone number, aadhar no. , email, lease date-start date, end date; and duration.
* The flat entity set, with attributes flat no. and previous owners.
* The owner\_dependent weak entity set,with attributes dependent names and aadhar no.
* The bill entity set, with attributes bill no. and amount.
* The employee entity set- workers (sweeper, security, waterman, gardener, electrician and event manager), staff and accountant -with common attributes name, phone number, aadhar no. ; and email; further sweeper, security, waterman, gardener, electrician have attributes shift and area. Staff has attribute designation.
* The complaint entity set, with attributes complaint no. , date and status.
* The department entity set, with attributes department name.
* The parking entity set, with attributes parking no. and vehicle no. .

**Relationship Sets:**

* “Owns”, a relationship set of many to many between owner and flat.
* “Lives in”, a relationship set of many to many between tenants and flat.
* “Pays Rent”, a relationship set of many to one between tenants and owner.
* “Pays Maintenance Bill”, a relationship set of one to many between owner and bill.
* “Has”, a relationship set of one to many between owner and dependents.
* “Has”, a relationship set of many to many between parking and flat.
* “Headed by”, a relationship set of many to many between department\_head and department.
* “Reports”, a relationship set of many to one between department\_head and secretary.
* “Reports”, a relationship set of one to one between secretary and chairman.
* “Reports”, a relationship set of one to one between secretary and accountant.
* “Reports”, a relationship set of many to many between workers and department\_head.
* “Maintains”, a relationship set of many to many between staff and complaint.
* “Works in”, a relationship set of many to one between worker and department.

**ER Diagram:**

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Figure ER Diagram for Society Management System