

DBMS PROJECT REPORT

Title: Apartment management system

Team Members: Section: A

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Problem Statement

Apartment buildings are very common in Bengaluru. They usually consist of multiple blocks and flats, and shared amenities. Management of an apartment can be a difficult task due to the sheer number of residential units in them.

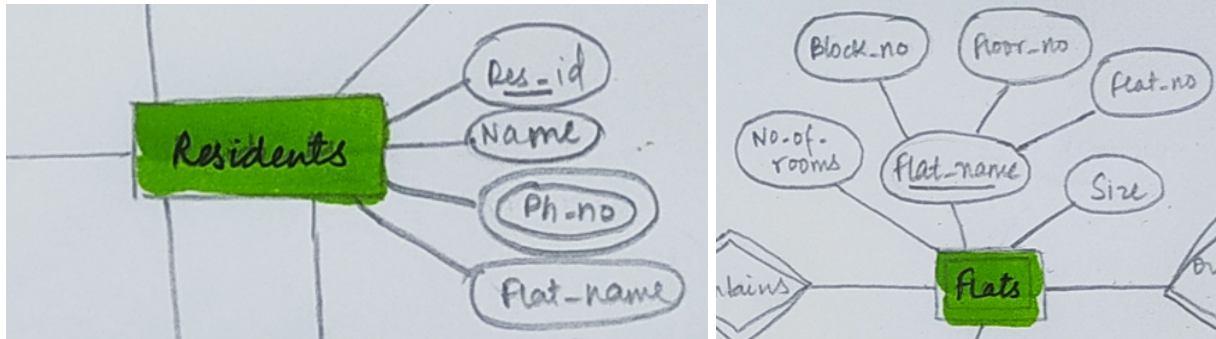
Our project consists of a robust database which stores information related to various apartments. Some entities in our database are Apartments, Blocks, Flats, Owners, Residents, Security Staff, Amenities, etc.

It can be used to manage activities of the residents of an apartment complex such as exit/entry of guests, use of amenities, allotment of parking spots, payment of maintenance fees. It also allows us to maintain a record of all staff associated with the apartment including Security, Housekeeping and Welfare Associations.

An Apartment Management System is thus the perfect tool to ensure efficient and organized functioning of apartment buildings

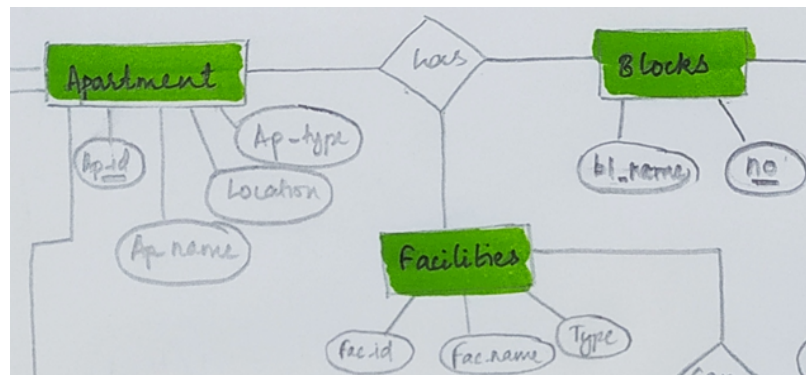
Conceptual Model:

- We first started out with listing all the entities. We then listed out attributes of each entity and classified them into their respective type.



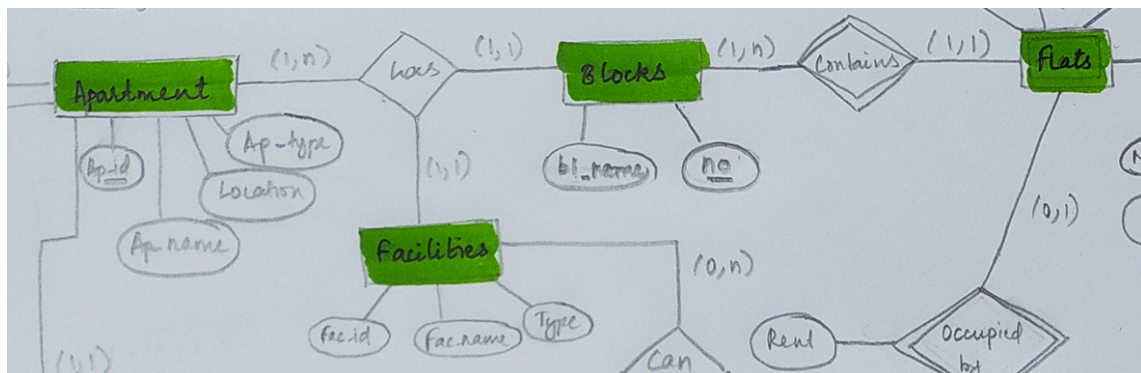
Entity with its attributes (includes strong, weak entities, primary keys, multivalued, composite attributes)

- We then built relations between the Entities

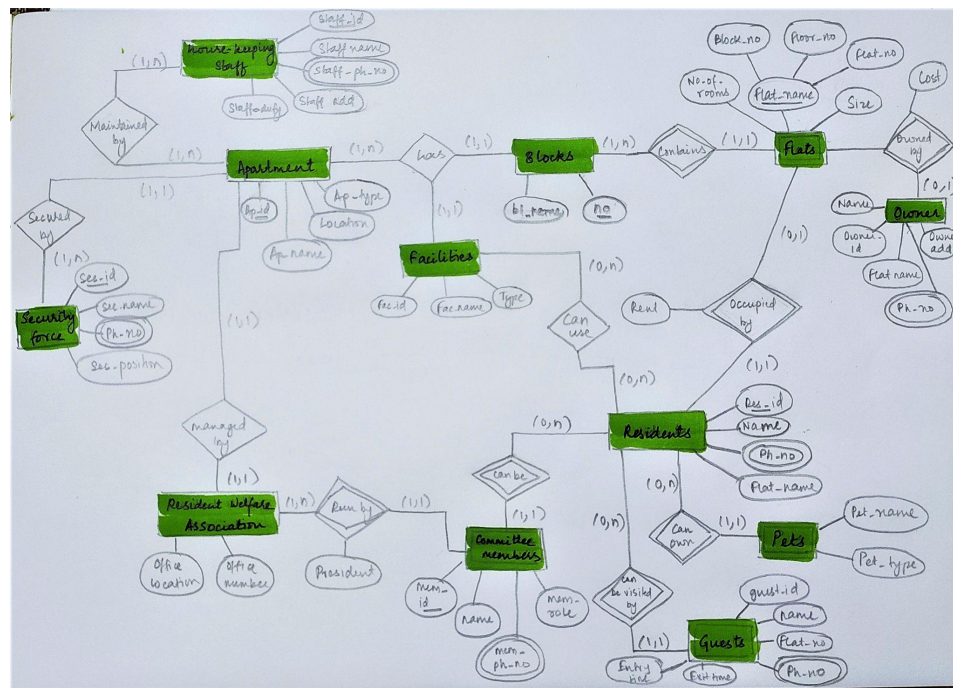


Relation between entities

- Lastly we included the participation and cardinality through the min,max notation



Cardinality and participation ratio



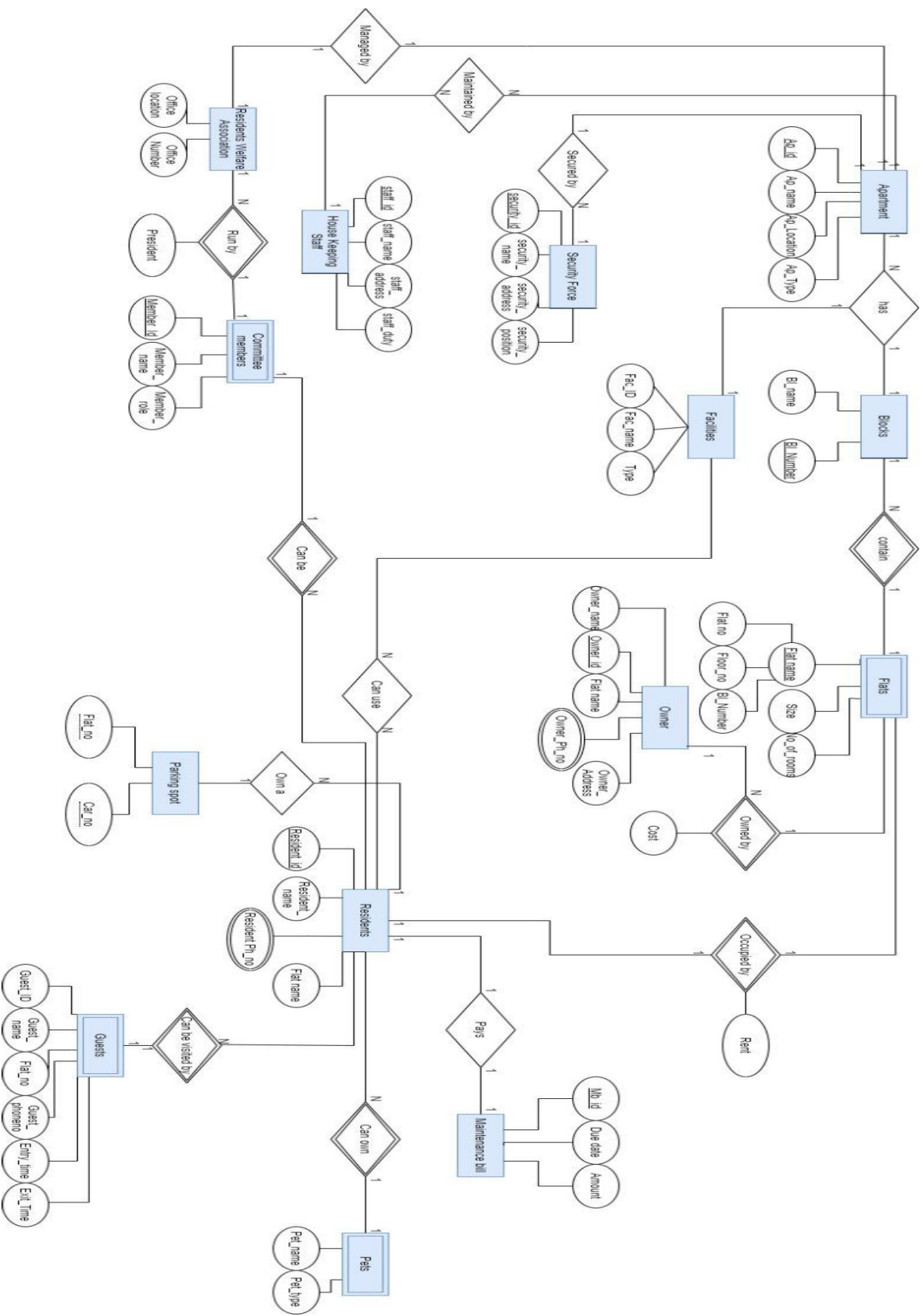
Final Draft

ER tool used

We used diagrams.net to draw our ER diagram.

It is a free cross platform online and desktop diagram software. Used to draw flowcharts, network diagrams, ER diagrams and block diagrams. It supports saving files to the cloud. They have a very user-friendly interface. Allows to export images of diagrams directly. Has a wide variety of templates to be used. Freehand shapes and diagram annotation can be easily drawn.

This ER diagram was done online (no installation steps)



Contributions

Total time spent: 4 hours

Name	Contributions
Abhijnya Bhat	Conceptual Model, $\frac{1}{4}$ th of ER diagram and $\frac{1}{2}$ of cardinality
Anagha H M	About ER tool used, $\frac{1}{4}$ th of ER diagram and $\frac{1}{2}$ of cardinality
Anchal Sharma	$\frac{1}{2}$ of ER diagram and problem statement