Project Phase - II
Apartment Management System

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The mini-world chosen is an Apartment Complex.

Having been a little careless in phase I , the changes we are now happy to make in

Phase II of our Database Requirements document are as follows :

ENTITIES

To justify some relationships presented by us in the requirements document:

1) Taking some attributes from the already existing entity type APARTMENT , we now create a new Entity type, OWNER .

   2. APARTMENT (weak entity,   foreign key = block name)
      a) Apartment number (partial key) (INT)
      b) Apartment size (FLOAT)
      c) Owner id   (VARCHAR(20))
      d) Monthly maintenance Charges (FLOAT)

   16. OWNER (weak entity,   foreign key = block name)
      a) Owner id (partial key) (VARCHAR(20))
      b) Owner name (VARCHAR(30))
      c) Phone number (Multivalued :{phoneNo1, phoneNo2,...} BIGINT)
      d) Email id (VARCHAR(30))
      e) Owner since (composite attribute : {DAY, MONTH, YEAR})

2) We changed the entity type COMMITTEE_HISTORY to COMMITTEE.

RELATIONSHIPS

We are now considering the following new relationships not mentioned earlier in the requirements document.

1) VISITORS visit APARTMENT_COMPLEX. (1 , 1) --- (1 , n)
2) TENANT or OWNER pays MMC (Monthly maintenance charges). (0 , 1) ---- (0 , 1) ---- (1 ,1)
3) TENANT or OWNER lodge COMPLAINTS. (0 ,1)---- (0 , 1) -- (1 ,1)
4) COMMITTEE manages ACCOUNTS and EXPENDITURE. (1 ,1) -- (1 ,1)---(1 ,1)

Project Phase - II

Apartment Management System

ER Diagram

VISITORS
- Committee id
- Phone number
- purpose
- Day
- Month
- Year
- Date

APARTMENT_COMPLEX
- Block name
- Block Manager id
- Block Manager name
- Block Color
- Email id
- phone number

VISIT (1,1) (1,n) (1,1)

PAYS (0,1) (1,1) (0,1)

MMC
- Paid upto
- Day
- Month
- Year
- Block name FK
- Apartment number

COMMITTEE FK
- Committee_id
- Member name
- Email id
- Member id
- Phone number

PAYS (1,1) (1,1)

COMMITTEE_TENURE
- Committee id
- Committee period
- from
- Day
- Month
- Year
- To
- Day
- Month
- Year

TENANT FK
- block name
- Tenant name
- Apartment number
- Email id
- Owner id
- Phone number
- Tenant since
- Day
- Month
- Year

OWNER FK
- Owner name
- block name
- Email id
- Owner id
- Phone number
- Owner since
- Day
- Month
- Year

EMPLOYEE
- Employee id
- Email id
- Employee name
- Salary
- Recruitment Date
- Day
- Month
- Year
- Phone number

d

MANAGE (1,1) (1,n)
- Managers
- Workers
- Type of work

MANAGES (1,1) (1,1) (1,1)

ACCOUNTS
- Committee id
- Income
- Total expenditure
- Day
- Month
- Year
- Date

OWNS (1,1) (1,1)

LIVES (1,1) (1,1)

APARTMENT
- Apartment number
- block name FK
- Owner id
- Apartment size
- Monthly maintenace charges

LODGE (0,1) (1,1) (0,1)

COMPLAINTS FK
- Block name
- complaintant
- Complaint
- Status
- Date of complaint
- Day
- Month
- Year
- Apartment number

d
- Plumbing
- Electrical
- Lift
- Others
- Complaint type

EXPENDITURE
- Amount spent
- Date
- Day
- Month
- Year

d
- Type of renovation or repair
- Renovations and Repairs
- Purchase of new equipment
- Name of new equipment
- Salaries
- Festive or special events
- Name of event
- Bonus
- Advances
- Monthly salaries

OWNERSHIP_HISTORY FK
- block name
- Email id
- Owner name
- Ownership period
- from
- Day
- Month
- Year
- To
- Day
- Month
- Year
- Owner id
- Phone number

TENANT_HISTORY FK
- block name
- Tenant name
- Apartment number
- Email id
- Owner id
- Tenancy Period
- from
- Day
- Month
- Year
- To
- Day
- Month
- Year
- Phone number

COMPLAINTS_HISTORY FK
- Block name
- Resolver name
- Resolver Phone number
- Resolver email id
- complaintant
- Complaint
- Date of complaint
- Day
- Month
- Year
- Apartment number

d
- Plumbing
- Electrical
- Lift
- Others
- Complaint type

EMPLOYEE_HISTORY
- Employee id
- Email id
- Employee name
- Salary
- Period of service
- from
- Day
- Month
- Year
- To
- Day
- Month
- Year
- Phone number

d
- Managers
- Workers
- Type of work