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Chapter 3 Wild Wood Apt project

1. The current system for the Wild Wood Apartments has many problems, the first being that most of the monthly reports are paper forms that are sent through the mail. Because the monthly reports are paper form, the accuracy and verifiability of the reports are hard to determine. Also, since the quarterly reports are sent through the mail, there is a chance that it might become lost. The current system is also slow because the apartment managers must fill out the form, then sent it through the mail, after waiting for it to came by then headquarters gets the report.
2. Managers at the different complex will have to update the lease information, maintenance info, rent payment info inside the appropriate database table. Along with updating this information, apartment managers will also have to make quarterly reports from the database Though each complexes manger will only have access to their tables inside the database. Headquarter managers will have access to see the lease information, maintenance info, rent payment info and monthly reports for all apartment managers.
3. The following are business rules for Wild Wood Apartments’ database.
   1. Apartment managers must generate a quarterly report each quarter.
   2. Quarterly report should summarized the occupancy rate, total revenue in rent, total expenses, total profit or loss and so forth for that apartment complex.
   3. Apartment managers must enter lease information, rent payment information and maintenance information.
   4. There is a grace period for tenants to pay their rent after the due date for rent.
   5. Currently the grace period is five days after the rent due date.
   6. After the grace period is up a penalty fee is added to the rent, if the tenant hasn’t paid yet.
   7. Currently the penalty fee set by Wild Wood Apartment headquarters is 100 dollars.
   8. Wild Wood Apartments headquarters needs to see all the information inside the database
   9. An override system needs to implement since some tenants have more leeway with the grace period.
   10. Apartment managers should only see their portion of the database and not another manager’s sector.
4. Some of the security rules for the Wild Wood Apartments are as follows.
   1. Unauthorized personnel should not have access to the database
   2. Only Headquarter managers should have access to see everything in the database
   3. Each apartment managers should only see their sector of the database and no one else’s sector.
   4. Only the managers of an apartment complex should have access to update information in that complexes sector of the database
   5. Tenant of an apartment should never has access to the database
   6. Once an apartment manager or headquarter manager leaves the service of the Wild Wood Apartments, they should not access the database anymore.
5. The following are preliminary entities and attributes of them entities for the Wild Wood Apartments database.
   1. Headquarter manager
      1. First name
      2. Last name
      3. Phone number
      4. Position
   2. Apartment manger
      1. Apartment complex name
      2. Apartment complex location
      3. First name
      4. Last name
      5. Apartment number
      6. Phone number
   3. Lease information
      1. Lease number
      2. Lessee name
      3. Apartment number
      4. Amount paid
      5. Deposit
      6. Start date
      7. End date
   4. Maintenance information
      1. Apartment number
      2. Start date
      3. Problem
      4. Type of the problem
      5. Resolution / solution
      6. Resolution date
      7. Expense
   5. Payment information
      1. Date payed
      2. Tenant’s name
      3. Apartment number
      4. Leased number
      5. Amount paid
      6. If it was late or not
   6. Quarterly report
      1. Location
      2. Quarter
      3. Current year
      4. Total amount of apartments
      5. Total occupied apartments
      6. Occupancy percent
      7. Total revenue in rent
      8. Maintenance expenses
      9. Unpaid rent amount
      10. Total profit or lost amount
6. Possible candidate key for the database are as follows.
   1. The lease number for the tenants’ lease
   2. Apartment complex’s location
   3. Apartment number inside the complex for that complex’s sector
   4. Apartment manager’s full name
   5. Generated id number for the complex and apartment manager