St Thomas Parking management system

Final deliverable

SCHOOL OF ENGINEERING

GRADUATE PROGRAMS IN SOFTWARE

Database management system – SEIS 630

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Contents

Changes made after the mid semester deliverable :

1. Updated the ER diagrams based on the feedback from Professor Dr Jordan Barlow
    a. Changed the Dashboard entity to user
    b. Created a separate entity for officer instead of having officer details in the ticket entity.
    c. Changed the name of owner entity to permit holder
    d. Removed the weather entity completely
    e. Updated the DL# as the primary key for all the subtype entities of permit holder .
    f. Created the below intersection table entities
        i. Adminticket
        ii. Ticketticketingofficer
        iii. Adminviolation

2. The parenthetical format updated with the changes made in the entity diagram

    Added the below tables

    a. ADMINVIOLATION (USERID, VIOLATION#)

    b. PARKINGLOCATIONADMIN (USERID, PARKINGNAME)

    c. ADMINTICKET (CITATION#, USERID)

    d. CARPERMITHOLDER (VIN#, DL#)

3. Created an sql script for create tables and inserting dummy data into the table .
4. Created an sql script with queries for following reports
    a. Report 1 – Vehicles currently in a given parking lot
    b. Report 2 – List of lots with current cars and capacity
    c. Report 3 – Outstanding parking violation tickets
    d. Report 4 – Parking violation ticket history by status – viewed for a given date range
    e. Report 5 – Personal Profiles
    f. Report 6 – Permits issued by semester
    g. Report 7 – Active Permits by Type

Learnings:

Hands on experience working in teams
Hands on experience with debugging the errors
Experience with DDL/DML

List of tables in parenthetical format :

1) PARKINGLOCATION (*ParkingName*, Capacity, Address, Safetyinfo, LotStatus)

2)ADMIN (*UserID*, UserAccess, UserType, Login, Password)

 3)PERMITHOLDER (*DL#,* Firstname, Lastname, Occupation, Email, Phone#)

4)PERMIT (*PermitID*, DateStart, ExpirationDate, Status, Price, *DL#)*

5)CAR (*VIN#,* PLATE#, MAKE, MODEL, COLOR, OWNERFIRSTNAME, OWNERLASTNAME, *PERMITID*, *PARKINGNAME*)

6)TICKETINGOFFICER (*OFFICERID*, FIRSTNAME, LASTNAME)

7)NOTIFICATION (*NOTIFICATIONID*, RECEIPIENT, TYPES, NotificationMode, DateTimesent, NotificationCOUNT, notificationstatus,*DL#)*

8)TICKET (**Citation#,** Plate#, TicketIssue, Description, Amount_paid, ParkingName, *PermitID,VIN#)*

9)VIOLATION (*Violation#,* FineAmount, ViolationType, ViolationWarning, *Citation#)*

10)TICKETTICKETINGOFFICER (*OFFICERID, Citation#)*

11)EMPLOYEE (*DL#,* EMPLOYEEID, Employeetype, Employeelevel)

12)PROFESSOR (*DL#,* STATUS, Depname, OFFICE#, ADDRESS)

13)STUDENT (*DL#,* STUDENTID, ADDRESS, COURSE, MAJOR, LIVINGSTATUS)

14)VISITOR (*DL#,* VOUCHER)

15)ADMINVIOLATION (*USERID, VIOLATION#)*

16)PARKINGLOCATIONADMIN (*USERID, PARKINGNAME*)

17)ADMINTICKET (*CITATION#, USERID*)

18)CARPERMITHOLDER (*VIN#, DL#)*

E R DIAGRAM

PARKINGLOCATIONADMIN
- ParkingName(Fk)
- UserID(FK)

PARKINGLOCATION
- PK ParkingName
- Address
- Capacity
- SecurityInfo
- Lot Status

TICKET
- PK Citation#
- Plate#
- TicketIssue
- Description
- Amount_paid
- VIN#(Fk)
- ParkingName(Fk)
- Permit(Fk)

ADMINTICKET
- Citation (Fk)
- UserID (Fk)

ADMIN
- PK UserID
- UserAccess
- UserType
- Login
- Password

CAR
- PK VIN#
- Plate#
- Make
- Model
- Color
- Owner FistName
- Owner LastName
- Permit#(Fk)
- ParkingName(Fk)

TICKETTICKETINGOFFICER
- OfficerID(FK)
- Citation(Fk)

TICKETINGOFFICER
- PK OfficerID
- LastName
- FirstName

CAR-PERMITHOLDER
- Vin#(FK)
- DL#

PERMITHOLDER
- PK DL#
- FirstName
- LastName
- Occupation
- Email
- Phone

PERMIT
- PK PermitID#
- DateStart
- ExpirationDate
- Status
- Price
- DL#(Fk)

NOTIFICATION
- PK NotifcationID#
- Recipient
- Types
- NotificationMode
- DateTimesent
- NotificationCount
- NotificationStatus
- DL # (FK)

ADMINVIOLATION
- UserID (FK)
- Violation(FK)

VIOLATION
- PK Violation#
- Fine Type
- ViolationType
- ViolationWarning
- Citation (FK)

PROFFESSOR
- PK DL#
- Status
- Dept
- Office#
- Address

STUDENT
- PK DL#
- StudentID#
- Address
- Course
- Major
- LivingStatus

EMPLOYEE
- PK DL#
- EmployeeIDNumber
- Type
- position

VISITOR
- PK DL#
- Voucher