

Car Rental System Analysis and Design

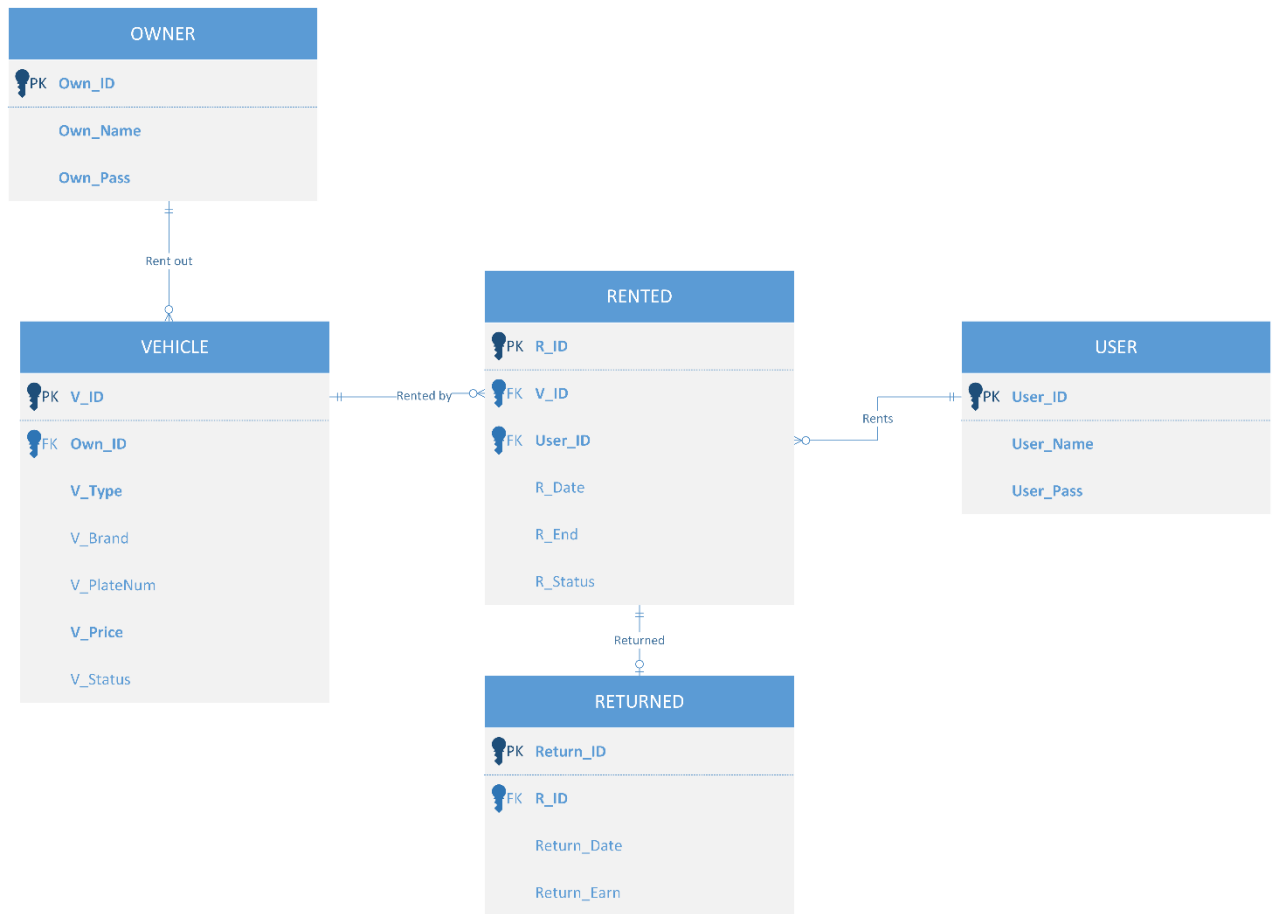
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Car Rental System ERD



Data Dictionary

Table USER

| No | Name | DataType | Length | Key | Description | Mandatory (Yes/No) |
|----|-----------|-----------|--------|-----|------------------------------|--------------------|
| 1 | User_ID | Number | 10 | PK | A unique user identification | Yes |
| 2 | User_Name | Character | 20 | | Name of the user | Yes |
| 3 | User_Pass | Character | 20 | | Password of the user account | Yes |

Table OWNER

| No | Name | DataType | Length | Key | Description | Mandatory (Yes/No) |
|----|----------|-----------|--------|-----|-------------------------------|--------------------|
| 1 | Own_ID | Number | 10 | PK | A unique owner identification | Yes |
| 2 | Own_Name | Character | 20 | | Name of owner | Yes |
| 3 | Own_Pass | Character | 20 | | Password of owner account | Yes |

Table VEHICLE

| No | Name | DataType | Length | Key | Description | Mandatory (Yes/No) |
|----|------------|-----------|--------|-----|---------------------------------|--------------------|
| 1 | V_ID | Number | 10 | PK | A unique vehicle identification | Yes |
| 2 | Own_ID | Number | 10 | FK | A foreign key of table OWNER | Yes |
| 3 | V_Type | Character | 20 | | Vehicle type | Yes |
| 4 | V_Brand | Character | 20 | | Vehicle brand | No |
| 5 | V_PlateNum | Character | 20 | | Vehicle plate number | No |
| 6 | V_Price | Number | 10 | | The price of the rental per day | Yes |
| 7 | V_Status | Character | 20 | | (available/unavailable) | No |

Table RENTED

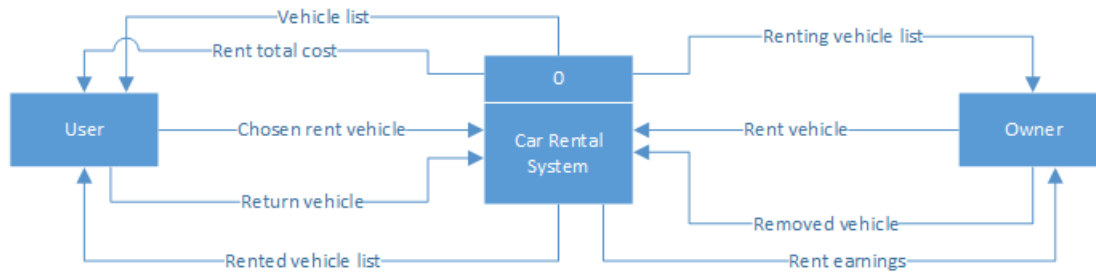
| No | Name | DataType | Length | Key | Description | Mandatory (Yes/No) |
|----|----------|-----------|--------|-----|---------------------------------|--------------------|
| 1 | R_ID | Number | 10 | PK | A unique rental identification | Yes |
| 2 | V_ID | Number | 10 | FK | A foreign key of table VEHICLE | Yes |
| 3 | User_ID | Number | 10 | FK | A foreign key of table USER | Yes |
| 4 | R_Date | Date | | | The date when the rental starts | No |
| 5 | R_End | Date | | | The date when the rental ends | No |
| 6 | R_Status | Character | 30 | | (active/returned) | No |

Table RETURNED

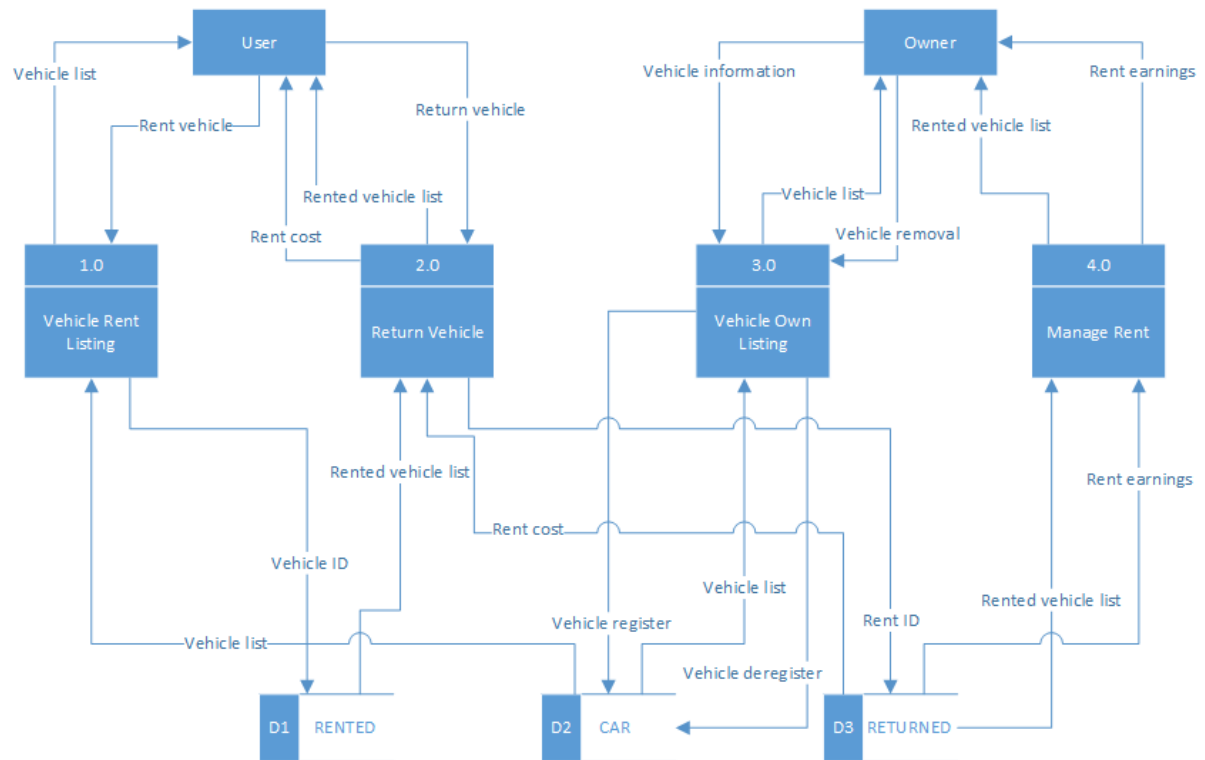
| No | Name | DataType | Length | Key | Description | Mandatory (Yes/No) |
|----|-------------|----------|--------|-----|---|-----------------------|
| 1 | Return_ID | Number | 10 | PK | A unique rental returned identification | Yes |
| 2 | R_ID | Number | 10 | FK | A foreign key of table RENTED | Yes |
| 3 | Return_Date | Date | | | The date of rental returned/cancellation | No |
| 4 | Return_Earn | Number | 10 | | Calculated rent cost by day | No |

Car Rental System DFD

Context Diagram



Level-1



Car Rental System Flowchart

