DBMS Assignment

15-12-2023

Road Accident Management System

Overview

The domain of a Road Accident Management System involves the development and maintenance of a software platform or system designed to streamline the management of road accidents. This comprehensive system incorporates various components and functionalities to efficiently handle diverse aspects such as incident details, involved parties' information, accident locations, vehicle data, legal documentation, emergency response coordination, and post-accident analysis.

Relevance of the system

The Road Accident Management System plays a crucial role in facilitating collaboration among different stakeholders, including law enforcement agencies, medical services, insurance companies, and local authorities, with the overarching goal of improving overall road safety and reducing the impact of accidents on individuals and communities.

Tables :

Police

Stores information about police officers, including their unique identifier (PoliceId), name, date of birth (DOB), and other relevant details.

Field	Type	Constraint
PoliceId	varchar	PrimaryKey
Name	varchar	
DOB	date	

Station

Captures data about police stations, with a primary key (StationID), station name, location (Place), and additional information.

Field	Type	Constraint
StationID	varchar	PrimaryKey
Name	varchar	
Place	varchar	

Post

Represents various police officer positions, recording the post's unique identifier (PostID), designation, and experience level.

Field	Type	Constraint
PostID	varchar	PrimaryKey
Post	varchar	
Experience	varchar	

Vehicle

Contains details about vehicles, such as a unique identifier (VehicleID), type, license information, model, and other relevant attributes.

FieldName	Type	Constraint
VehicleID	varchar	PrimaryKey
Type	varchar	
License	varchar	
Model	varchar	

Person

Stores information about individuals, including a unique identifier (PersonID), contact number, gender, date of birth (DOB), and address.

FieldName	Type	Constraint
PersonID	varchar	PrimaryKey
Contact	number	
Gender	varchar	
DOB	varchar	
Address	varchar	

Road

Records details about roads, with a primary key (RoadID), road type, and other relevant information.

Field	Type	Constraint
RoadID	varchar	PrimaryKey
RoadType	varchar	

Location

Captures location data, including a unique identifier (LocationID), state, pin code, and area information.

Field	Type	Constraint
LocationID	varchar	PrimaryKey
State	varchar	
Pincode	varchar	
Area	varchar	

Accident

Represents accidents, recording a unique identifier (AccidentID), accident type, and other details.

FieldName	Type	Constraint
AccidentID	varchar	PrimaryKey
Type	varchar	

Ambulance

Holds information about ambulances, including a unique identifier (AmbulanceID) and license plate details.

FieldName	Type	Constraint
AmbulanceID	varchar	PrimaryKey
LicensePlate	varchar	

PoliceStationMapping

Maps relationships between police officers, stations, and positions, with identifiers for mapping (PoliceStationID), police officers (PoliceID), stations (StationID), and positions (PostID).

FieldName	Type	Constraint
PoliceStationID	varchar	PrimaryKey
PoliceID	varchar	ForeignKey (references Police table)
StationID	varchar	ForeignKey (references Station table)
PostID	varchar	ForeignKey (references Post table)

VehiclePersonMapping

Establishes associations between vehicles and persons, with identifiers for mapping (VehiclePersonID), vehicles (VehicleID), and persons (PersonID).

FieldName	Type	Constraint
VehiclePersonID	varchar	PrimaryKey
VehicleID	varchar	ForeignKey (references Vehicle table)
PersonID	varchar	ForeignKey (references Person table)

AccidentRecords

Stores records of accidents, capturing identifiers (AccidentRecordID), accident details, involved vehicles and persons, police station information, date and time (DateTime), road details, description, and location.

FieldName	Type	Constraint
AccidentRecordID	varchar	PrimaryKey
AccidentID	varchar	ForeignKey (references Accident table)
VehiclePersonID	varchar	ForeignKey (references VehiclePerson table)
PoliceStationID		
DateTime		
RoadID		
Description		
LocationID		

AccidentFormality

Manages formalities related to accidents, with identifiers (AccidentFormalityID) linking to accident records (AccidentRecordID) and associated ambulances (AmbulanceID).

FieldName	Type	Constraint
AccidentFormalityID	varchar	PrimaryKey
AccidentRecordID	varchar	ForeignKey (references AccidentRecord table)
AmbulanceID	varchar	ForeignKey (references Ambulance table)