Smart Dhaka - A Smart City Management System
Class Diagram

User Related

User
- -UserID: int
- -FullName: String
- -Email: string
- -Password: string
- -Address: string
- -Phone: string
- -Role: enum
- -ProfilePicture: string

- +register(): void
- +login(): void
- +verifyOTP(): void
- +updateProfile(): void
- +viewDashboard(): void

UtilityBills
- -BillID: int
- -UserID: int
- -BillType: String
- -Amount: decimal
- -DueDate: date
- -Status: enum

- +create(): void
- +update(): void
- +delete(): void
- +pay(): void

Transport
- -TransportID: int
- -RouteName: string
- -VehicleType: string
- -Timing: string
- -Status: enum

- +create(): void
- +update(): void
- +delete(): void

Complaints
- -ComplaintID: int
- -UserID: int
- -Subject: string
- -Description: string
- -Status: enum
- -DateFiled: date

- +create():void
- +update(): void
- +delete():void

EmergencyService
- -RequestID: int
- -UserID: int
- -Type: string
- -Description: string
- -DateRequested: date
- -Status: enum

- +create():void
- +update(): void
- +delete():void

TrafficViolations
- -ViolationID: int
- -CitizenID: int
- -Description: string
- -DateOccurred:date
- -FineAmount: decimal
- -Status:enum

- +create(): void
- +update(): void
- +delete(): void
- +pay(): void

OTPCodes
- -id: int
- -UserID: int
- -otp: string
- -created_at: datetime
- -expired_at: datetime

- +create():void
- +update(): void
- +delete():void

Admin Managed

Events
- -EventID: int
- -Title: string
- -Description: string
- -Location: string
- -Date: date
- -Status: enum

- +create(): void
- +update(): void
- +delete(): void

WasteManagement
- -WasteID: int
- -Area: string
- -Schedule: String
- -Status: enum

- +create(): void
- +update(): void
- +delete(): void

EducationInstitution
- -InstituteID: int
- -Name: string
- -Address: string
- -Type: string
- -Status: enum

- +create(): void
- +update(): void
- +delete(): void