

## Project Design Phase

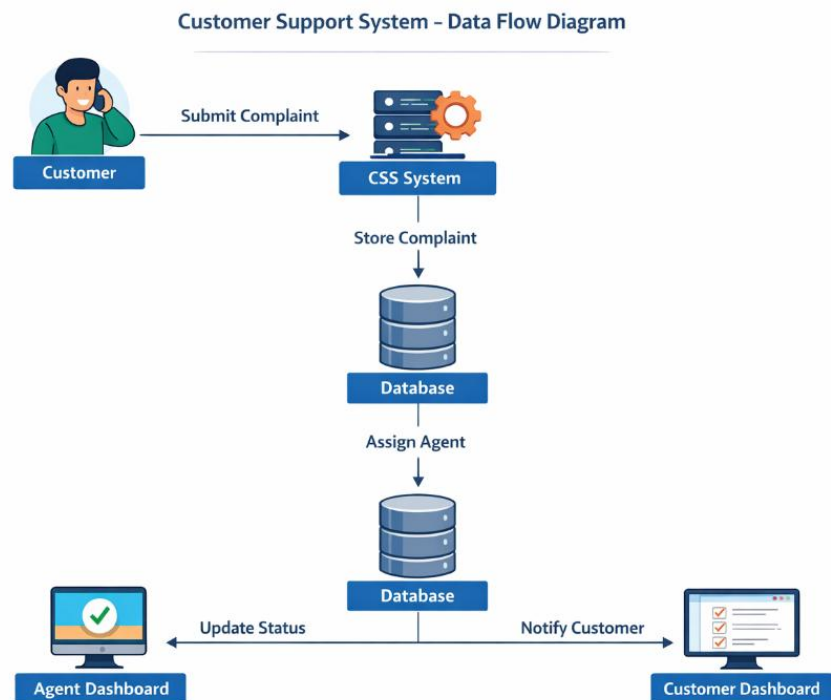
### Solution Architecture

|               |                                  |
|---------------|----------------------------------|
| Date          | 18 February 2026                 |
| Team ID       | LTVIP2026TMIDS57846              |
| Project Name  | Civil Engineering Insight Studio |
| Maximum Marks | 4 Marks                          |

## Architecture Overview

The CSS system follows a **3-Tier Architecture**:

## High-Level Solution Architecture Diagram



## Detailed Component Architecture

### 1. Presentation Layer

- Login / Register Page
- Dashboard (Admin, Agent, User)
- Complaint Submission Form
- Status Tracking

### 2. Application Layer

- Authentication & Authorization
- Role Management (Admin, Agent, User)
- Complaint Assignment Logic
- Status Update Handling

- Email / OTP Confirmation

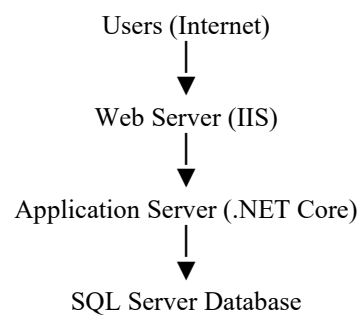
### 3. Data Layer

- User Table
- Agent Table
- Complaint Table
- Role Table
- Assignment Table

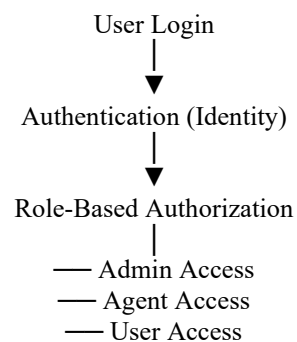
## Technology Stack

| Layer          | Technology                   |
|----------------|------------------------------|
| Frontend       | HTML, CSS, Bootstrap         |
| Backend        | ASP.NET Core MVC             |
| Authentication | ASP.NET Identity             |
| Database       | SQL Server                   |
| Hosting        | IIS / Cloud (Azure optional) |

## Deployment Architecture



## Security Architecture



Security Features:

- Password Hashing
- Role-based access control
- Email confirmation
- Secure database access