Approach Paper: Voting Application

Objective:

The application allows users to add voters, register candidates, and cast votes for candidates. Once a voter submits their vote, they cannot vote again. The vote count for the selected candidate should increase, and the voter's status should change to "Voted."

Technology Stack:

1. **Backend:** .NET Core 7
2. **Frontend:** Angular 17

Key Features:

- Add voters and candidates.
- Cast votes for candidates.
- Prevent duplicate voting by the same voter.
- Update vote counts in real-time.
- Display voter's voting status.

Additional Features and Assumptions:

1. **Leader Board:** Display candidates in the order of their vote counts.
2. **Winner Announcement:** Identify and display the winning candidate once all votes are cast.
3. **Voter History:** Provide an admin panel to view voting history and statistics.

Architecture Explanation:

Backend Architecture:

- A CRUD-based approach using DbContext for database operations, suitable for the application's scale.

Frontend Architecture:

- An Angular single-page application (SPA) that handles all functionalities related to voters, candidates, and vote casting.

Database:

- **Diagram:** The database is managed using MS SQL Server.