# VISUAL PROGRAMMING LAB

## CSL 313

## BSE 5A

## FALL 2023

# PROJECT REPORT


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# Project Report: Online Voting System

## Project Overview

The Online Voting System is designed to streamline the voting process, making it more accessible and efficient. The primary objectives include providing a secure and user-friendly interface for both administrators and voters, ensuring the integrity of the voting process, and maintaining accurate records of candidate information.

## Methodology:

*Technologies Used:*

- **Programming Language:** C#
- **Database Management System:** Microsoft SQL Server
- **User Interface:** Windows Forms Application
- **Version Control:** Git

*Project Components:*

1. **Form1 (Main Menu):** Provides options for administrator and voter login.
2. **Form2 (Voter Registration):** Allows voters to register, capturing essential information and storing it in the database.
3. **Form3 (Admin Login):** Provides access to the admin interface for managing candidate approvals and voter requests.
4. **Form4 (Voter Login):** Allows registered voters to log in and cast their votes.
5. **Form5 (Admin Dashboard):** Displays pending voter requests with options to approve or reject them.
6. **Form6 (Voter Interface):** Enables voters to select candidates and cast their votes.
7. **Form7 (Admin Candidate Selection):** Allows admins to add candidates to the system.

## Results:

1. **User Registration and Authentication:** Implemented a secure user registration process, including proper validation and storage of voter information.

2. **Admin Dashboard:** Created an admin dashboard to manage pending voter requests, facilitating the verification process.
3. **Voter Interface:** Developed a user-friendly interface for voters to cast their votes, ensuring a smooth voting experience.
4. **Candidate Management:** Implemented functionality for admins to add candidates, including uploading candidate images and associating them with specific constituencies.

## Challenges Faced:

1. **Database Integration:** Connecting and managing the SQL Server database posed challenges initially, resolved through thorough debugging and testing.
2. **Data Validation:** Ensuring proper validation of user inputs to prevent invalid or malicious data entry.
3. **User Authentication:** Implementing a robust authentication system to secure both admin and voter logins.

## Conclusion and Future Work:

In conclusion, the Online Voting System project successfully achieves its primary goals of providing a reliable platform for voters to cast their votes and administrators to manage the election process efficiently. Future enhancements may include:

1. **Enhanced Security Features:** Implementing advanced encryption methods for sensitive data.
2. **Real-time Updates:** Introducing real-time updates on the voting status and candidate approvals.
3. **Usability Improvements:** Conducting user testing for further improvements in the user interface and experience.

## Git Repository:

https://github.com/AyeshaMalik07/Online-Voting-System.git

## Uploaded Files:

1. Form1.cs
2. Form2.cs
3. Form3.cs
4. Form4.cs
5. Form5.cs
6. Form6.cs

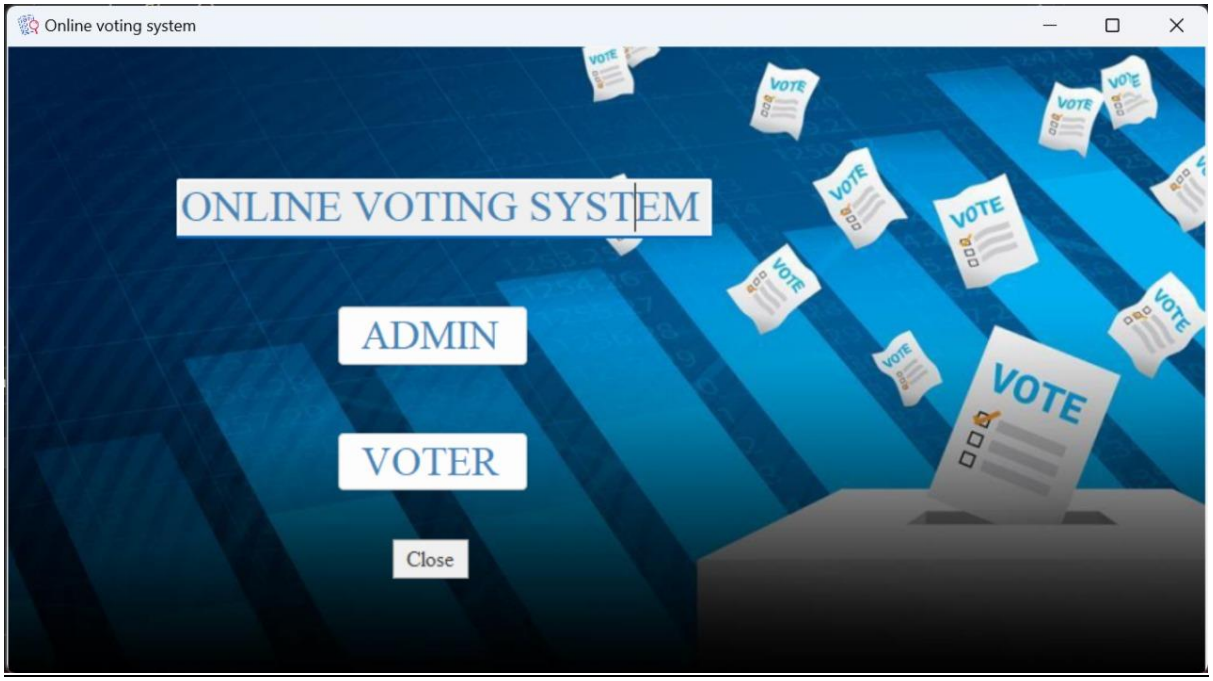
7. Form7.cs
8. Project Report

# Version Control:

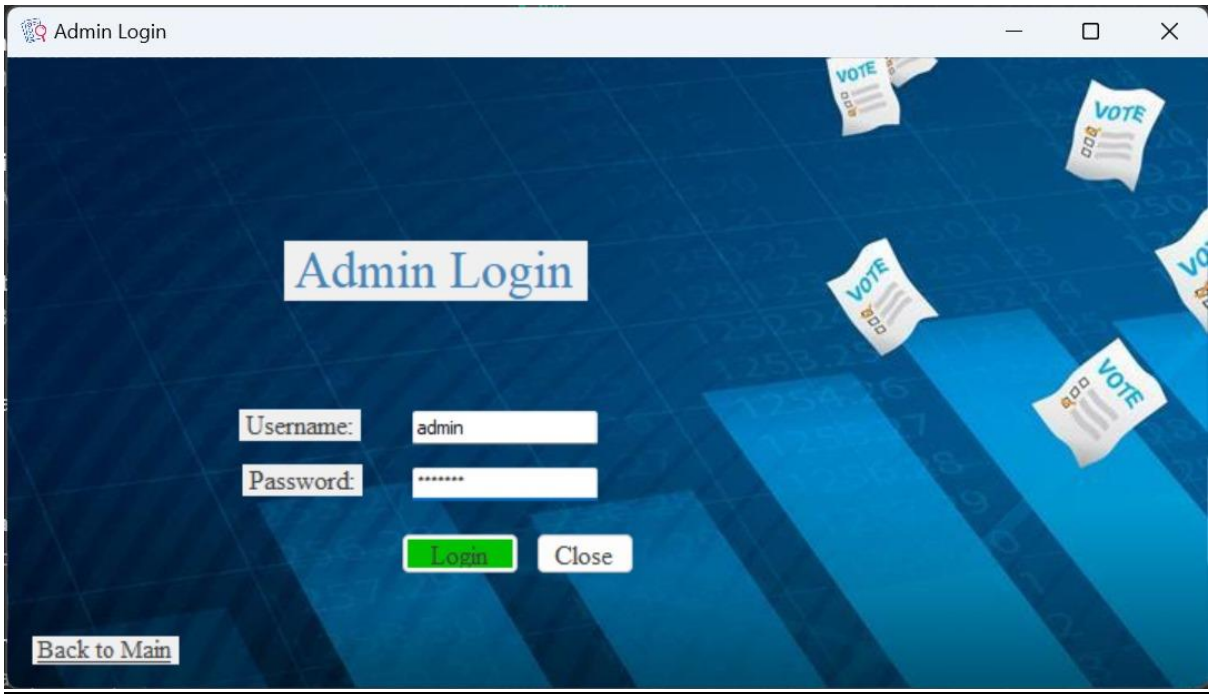
Commits are well-documented and follow a logical progression, detailing the implementation of each form and feature. Clear commit messages aid in understanding the project's evolution.

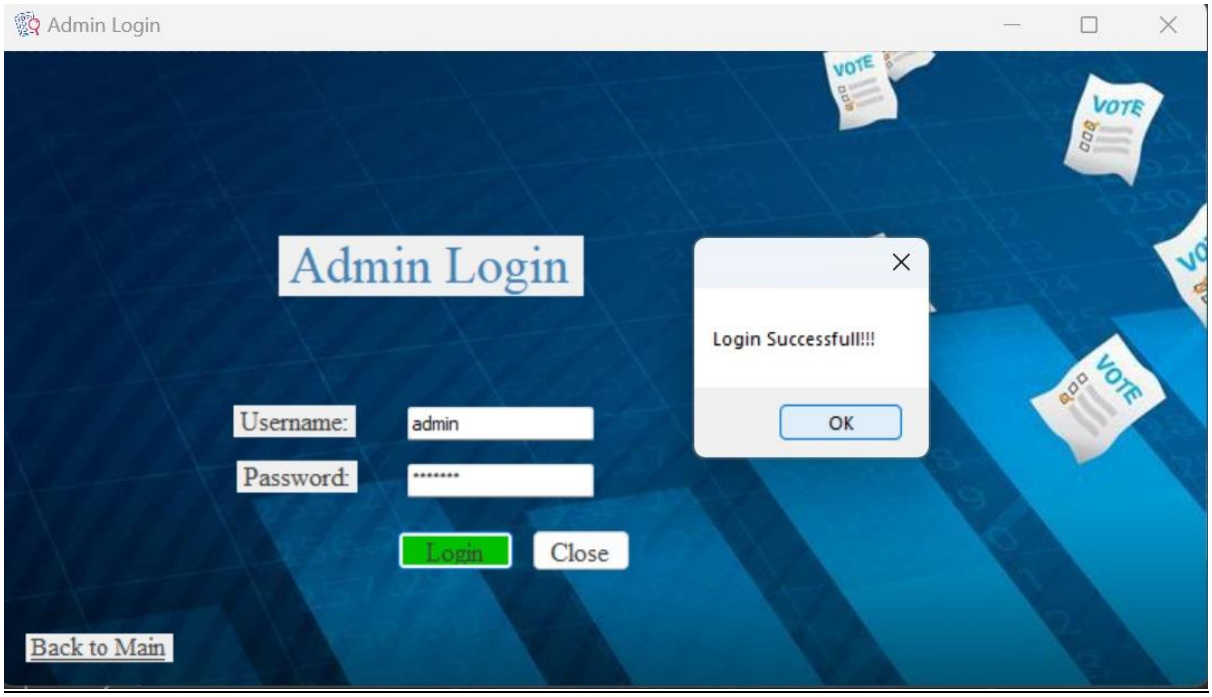
# Screenshots:

Main Menu:



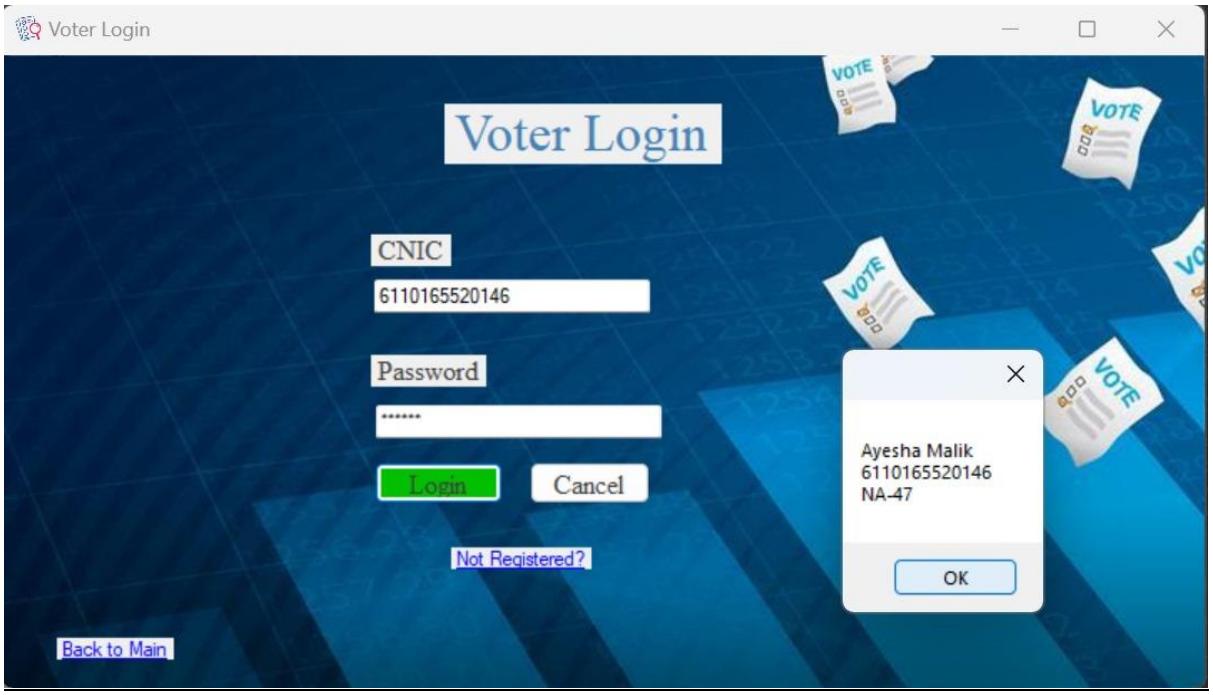
Admin Login:


Admin Login
Admin Login
Username:
admin
Password:
Login
Close
Back to Main

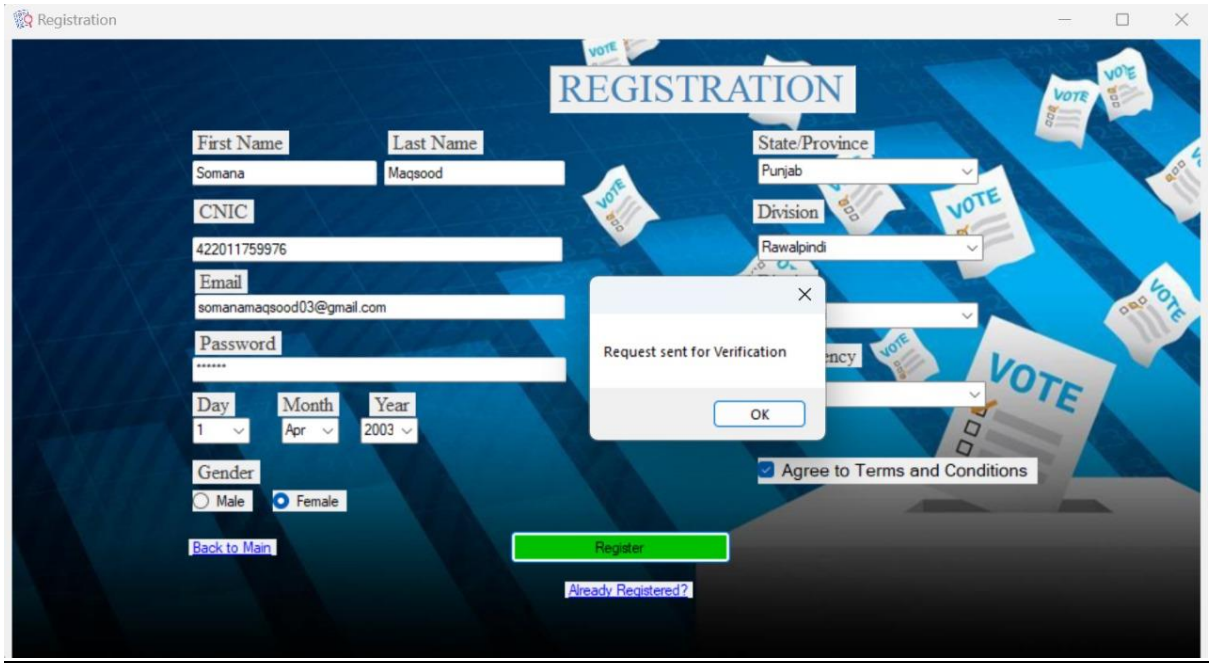

Admin Login
Admin Login
Login Successfull!!!
OK
Username:
admin
Password:
Login
Close
Back to Main

Candidate:

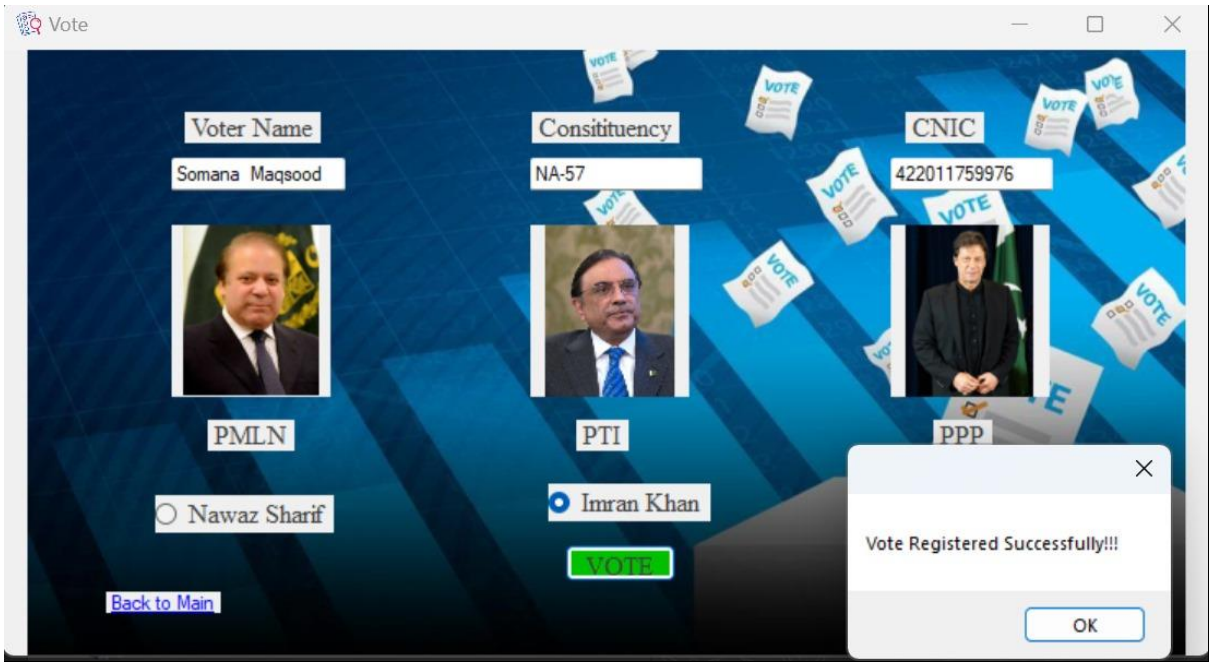
Voter Login:

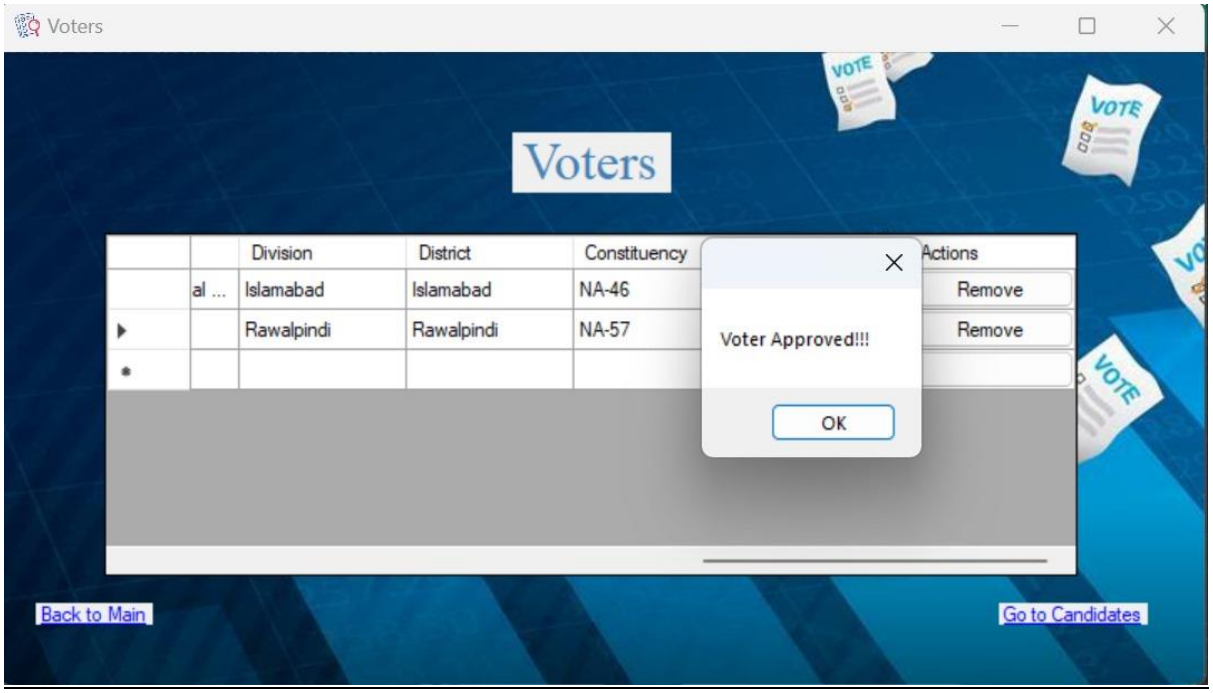


Voter Registration:




Voter Interface:


Vote
Voter Name
Somana Maqsood
Consitituency
NA-57
CNIC
422011759976
PMLN
PTI
PPP
Nawaz Sharif
Imran Khan
VOTE
Back to Main
Vote Registered Successfully!!!
OK


Voters
Voters
Division
District
Constituency
Actions
al ...
Islamabad
Islamabad
NA-46
Remove
Rawalpindi
Rawalpindi
NA-57
Remove
Voter Approved!!!
OK
Back to Main
Go to Candidates