

**VISUAL PROGRAMMING LAB**

**CSL 313**

**BSE 5A**

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**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

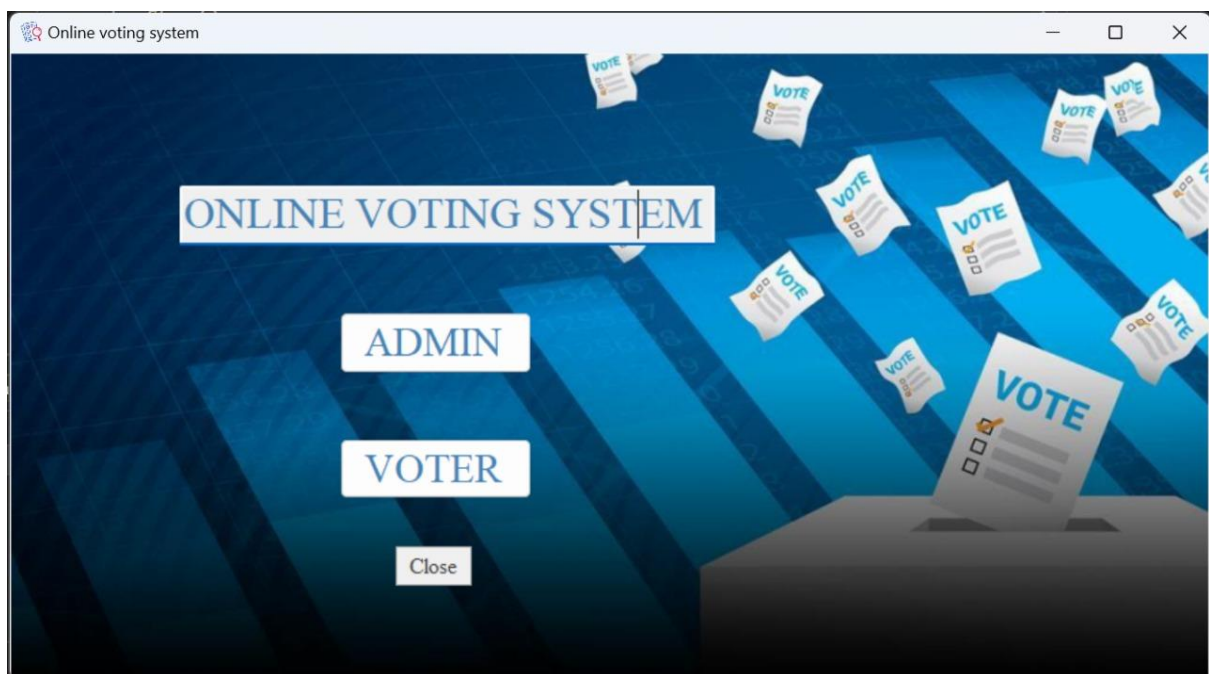
7. Form7.cs
8. Project Report

## Version Control:

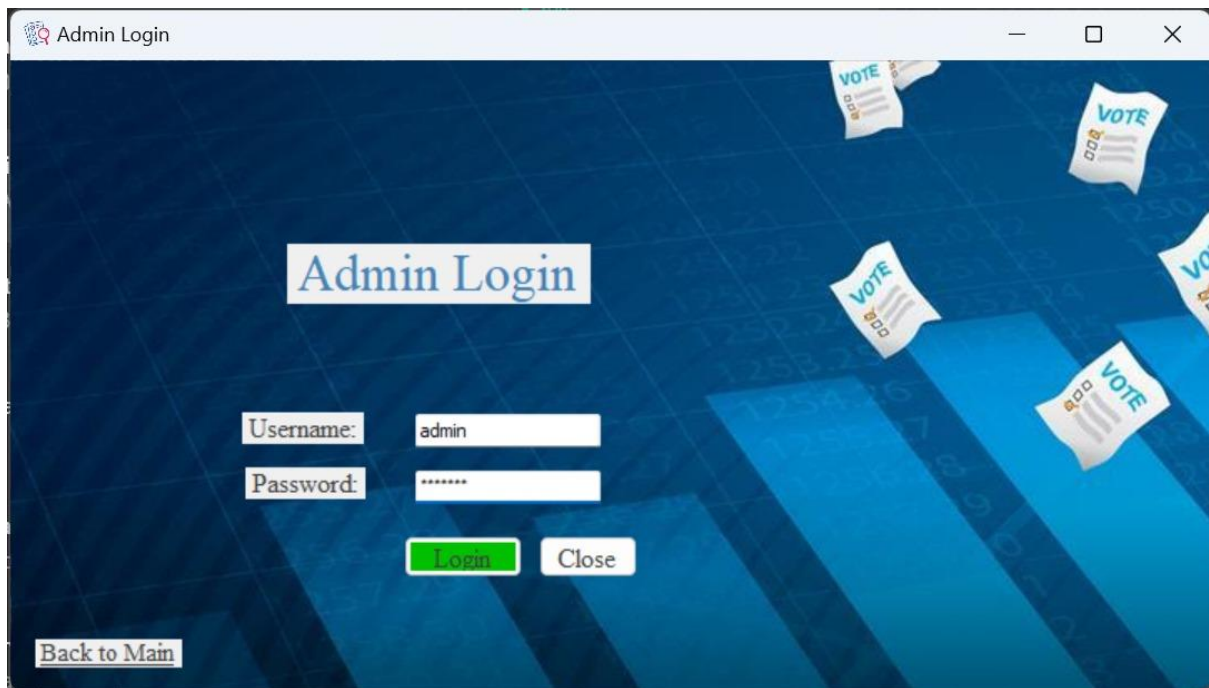
Commits are well-documented and follow a logical progression, detailing the implementation of each form and feature. Clear commit messages aid in understanding the project's evolution.

## Screenshots:

Main Menu:



## Admin Login:



A screenshot of a web browser window titled "Admin Login". The background is a dark blue grid with floating white ballot papers labeled "VOTE". In the center, there is a white box with the text "Admin Login". Below it, there are two input fields: "Username:" with the value "admin" and "Password:" with the value "\*\*\*\*\*". To the right of these fields are two buttons: a green "Login" button and a white "Close" button. At the bottom left, there is a link labeled "Back to Main".

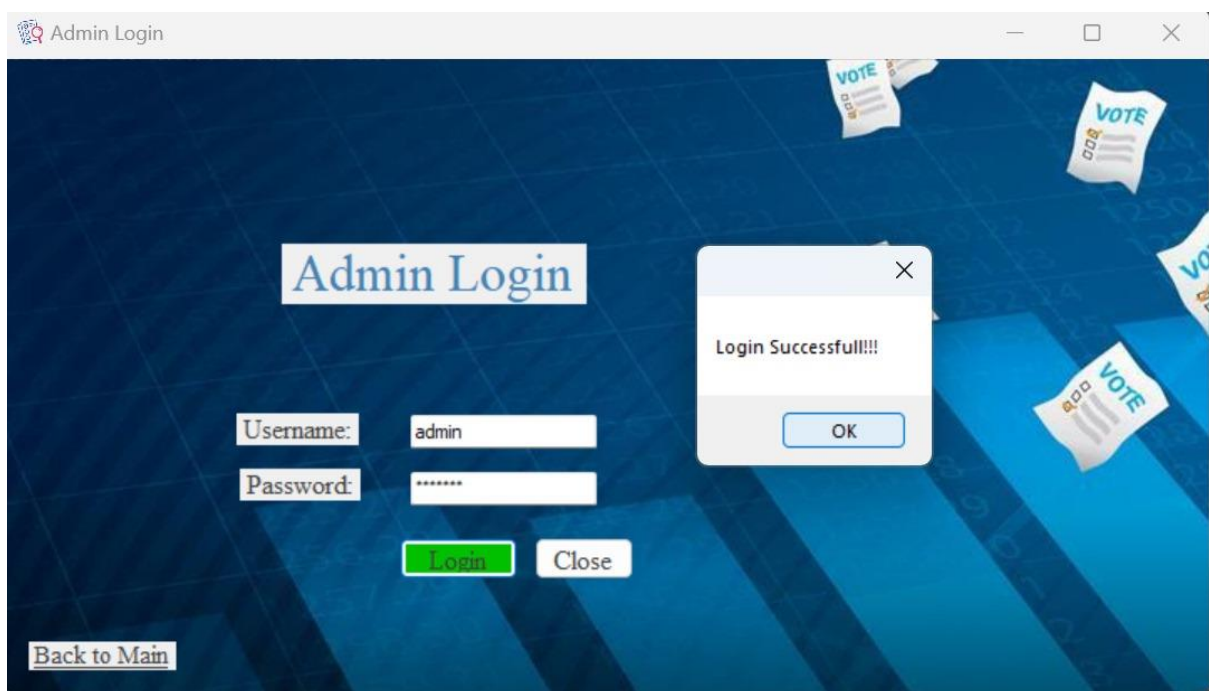
Admin Login

Username: admin

Password: \*\*\*\*\*

Login Close

[Back to Main](#)



A screenshot of the same "Admin Login" web browser window. A small white dialog box with a close button (X) is overlaid on the right side. The dialog box contains the text "Login Successfull!!!" and an "OK" button. The background and main form elements are the same as in the previous screenshot.

Admin Login

Username: admin

Password: \*\*\*\*\*

Login Close

[Back to Main](#)

Login Successfull!!!

OK

### Candidate:

The 'Candidates' web application interface features a dark blue background with a grid of numbers and several 'VOTE' ballots floating in the upper right corner. At the top center, the word 'Candidates' is displayed in a white serif font. Below this, a portrait of a man in a suit and red tie is shown. Underneath the portrait is a white button labeled 'Choose'. Below the 'Choose' button are three dropdown menus: 'Constituency' (showing 'NA-71'), 'Candidate Name' (showing 'Nawaz Sharif'), and 'Party' (showing 'PMLN'). Below these dropdowns is a green button labeled 'Add'. In the bottom left corner, there is a blue button labeled 'Back', and in the bottom right corner, there is a blue button labeled 'Main Menu'.

### Voter Login:

The 'Voter Login' web application interface has a dark blue background with a grid of numbers and 'VOTE' ballots. The title 'Voter Login' is centered at the top in a white serif font. Below the title are two input fields: 'CNIC' with the value '6110165520146' and 'Password' with masked characters '\*\*\*\*\*'. Below these fields are two buttons: a green 'Login' button and a white 'Cancel' button. Below the 'Login' button is a blue link labeled 'Not Registered?'. In the bottom left corner, there is a blue button labeled 'Back to Main'. A white confirmation dialog box is open on the right side of the screen, displaying the text 'Ayesha Malik', '6110165520146', and 'NA-47'. The dialog has a close button (X) in the top right corner and an 'OK' button at the bottom.



## Voter Registration:

The screenshot shows a web browser window titled "Registration". The background is a blue geometric pattern with floating "VOTE" papers. The registration form includes the following fields and options:

- First Name:** Text input with "Somana".
- Last Name:** Text input with "Maqsood".
- CNIC:** Text input with "422011759976".
- Email:** Text input with "somanamaqsood03@gmail.com".
- Password:** Text input with masked characters "\*\*\*\*\*".
- State/Province:** Dropdown menu with "Punjab" selected.
- Division:** Dropdown menu with "Rawalpindi" selected.
- Day:** Dropdown menu with "1" selected.
- Month:** Dropdown menu with "Apr" selected.
- Year:** Dropdown menu with "2003" selected.
- Gender:** Radio buttons for "Male" and "Female", with "Female" selected.
- Agree to Terms and Conditions:** A checked checkbox.
- Buttons:** "Back to Main" (blue), "Register" (green), and "Already Registered?" (blue).

A modal dialog box is open in the center, titled "Request sent for Verification", with an "OK" button.

## Voter Interface:

The screenshot shows a web browser window titled "Vote". The background is a blue geometric pattern with floating "VOTE" papers. The voter interface displays the following information and options:

- Voter Name:** "Somana Maqsood".
- Consitituency:** "NA-57".
- CNIC:** "422011759976".
- Party Selection:** Three columns, each with a photo, party name, and a radio button:
  - PMLN:** Photo of Nawaz Sharif, radio button selected.
  - PTI:** Photo of Imran Khan, radio button not selected.
  - PPP:** Photo of Asif Zardari, radio button not selected.
- Buttons:** "Back to Main" (blue) and "VOTE" (green).


Vote


Voter Name  
Somana Maqsood

Consitituency  
NA-57

CNIC  
422011759976

 PMLN

 PTI

 PPP

☐ Nawaz Sharif

☒ Imran Khan

[Back to Main](#)

[VOTE](#)

Vote Registered Successfully!!!

OK

Voters

	Division	District	Constituency	Actions
al ...	Islamabad	Islamabad	NA-46	<a href="#">Remove</a>
▶	Rawalpindi	Rawalpindi	NA-57	<a href="#">Remove</a>
•				

Voter Approved!!!

OK

[Back to Main](#)

[Go to Candidates](#)