### SOUTHWESTERN STATE COLLEGE TRIBHUVAN UNIVERSITY FACULTY OF HUMANITIES AND SOCIAL SCIENCE



# A Project Report On ONLINE VOTING SYSTEM

## Submitted to Department of Computer Application Southwestern State College, Basundhara, Kathmandu

In partial fulfillment of the requirements for the Bachelor in Computer Application

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## SOUTHWESTERN STATE COLLEGE TRIBHUVAN UNIVERSITY FACULTY OF HUMANITIES AND SOCIAL SCIENCE



We hereby recommend that this project is prepared by **Reshma Pokhrel** and **Naresh Khatri** under supervision by **Mr. Kiran Ghimire** entitled "**ONLINE VOTING SYSTEM**" in partial fulfillment of the requirements for the degree of Bachelor of Computer Application be processed for the evaluation.

Kiran Ghimire

Designation

#### LETTER OF APPROVAL

This is to certify that this project is prepared by **Reshma Pokhrel** (6-2-530-23-2020) and **Naresh Khatri**(6-2-530-20-2020) entitled "**ONLINE VOTING SYSTEM** in partial fulfillment of the requirements for the degree of Bachelor in Computer Application has been evaluated. In our opinion it is satisfactory in the scope and quality as a project for the required degree.

\_\_\_\_\_

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**ACKNOWLEDGMENT** 

This is an attempt to present the project entitled " online voting system for college "

prepared for partial fulfillment of the requirement for the Degree of Bachelor in computer

application (BCA) is an outcome of continuous and immeasurable cooperation and support

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I express my sincere honor and special sense of gratitude to my academic supervision, Mr.

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Naresh Khatri

Reshma Pokhrel

Date:

iv

#### **ABSTRACT**

A digital platform that enables college students to vote online for student body elections or other relevant events is known as an online voting system for colleges. With the use of this technology, student elections will be conducted in a more practical, open, and inclusive manner, enabling more students to take part regardless of where they are or how much time they have available.

The system uses strong measures for authentication, encryption, and verification to guarantee the security and integrity of the voting process. Additionally, the system offers real-time feedback and vote counting, enabling prompt and precise results that may be made public right after the voting period. Overall, a college-level online voting system can improve student participation, raise voter turnout, and foster a more democratic and welcoming campus environment. Using this system all the user information are stored in the user database and we easily see the result.

**Keywords**: Database, Information System, online voting system, relevant events, transaction record, user, etc.

#### TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION	1
1.1. Introduction	1
1.2. Objectives	1
1.3. Problem Statement	1
1.4. Scope	2
1.5. Report Organization	3
CHAPTER 2: BACKGROUND STUDY AND LITERATURE REVIEW	5
2.1. Background Study	5
2.2. Literature Review	6
CHAPTER 3: SYSTEM ANALYSIS AND DESIGN	9
3.1. System Analysis	9
3.1.1. Requirement Analysis	9
3.1.2. Feasibility Analysis	12
3.1.3 Data Modeling (ER Diagram)	13
3.1.4. Process Modeling (DFD Make 2 level DFD)	14
3.2. System Design	15
3.2.1 Architectural Design	15
3.2.2. Database Schema Design	16
3.2.3 Interface Design (UI Interface/ Interface Structure Diagram)	17
CHAPTER 4: IMPLEMENTATION AND TESTING	18
4.1. Implementation	18
4.1.1. Tools Used	18
4.2. Testing	21
4.2.1. Test Cases for Unit Testing	21
4.2.2. Integration testing	23
4.2.3. Test Cases for System Testing	
CHAPTER 5: CONCLUSION AND FUTURE RECOMMENDATION	27
5.1. Conclusion	27
References	
Appendix	29

#### LIST OF FIGURES

Figure 1: Use-case diagram	10
Figure 2: Gantt Chart	12
Figure 3: E-R Diagram	13
Figure 4: DFD of online voting	14
Figure 5: Architectural design	15
Figure 6: Database Schema	16
Figure 7 Waterfall Mode	18

#### LIST OF TABLES

Table 1: Software Requirements	11
Table 2: Hardware Requirements	11
Table 3: Unit testing for Register	22
Table 4: Integration testing for login	24
Table 5: System Testing	26

#### LIST OF ABBREVATIONS

AJAX: Asynchronous JavaScript

**CSS**: Cascading Style Sheet

**DFD**: Data Flow Diagram

**ER**: Entity Relation

**HTML**: Hypertext Markup Language

JS: JavaScript

MYSQL: My Structured Query Language

**PHP**: Hypertext Preprocessor

**DBMS**: Database Management System

#### **CHAPTER 1: INTRODUCTION**

#### 1.1. Introduction

An online voting system for colleges is a digital platform that enables students, professors, and staff members to electronically participate in a range of college elections, such as those for the student council, faculty committee, or board of trustees. Many institutions believe it to be less

It may not be desirable to continue using the outdated paper-based voting system since it is time-consuming, expensive, and prone to error. Online voting methods offer several benefits, including as enhanced simplicity, accessibility, and transparency. Students may vote anytime they choose, from any location, and on any device by using online voting systems, which replaces the requirement for in-person voting and paper ballots. Additionally, online voting methods can decrease the likelihood of vote fraud and ensure an election is fair. The fundamental goal of an online voting system for college students is to give them a quick, safe, and secure way to take part in the democratic process of student body elections and other associated activities. More students can engage in the voting process regardless of where they are by offering a digital platform. This project is on the base of HMTL, CSS, Jscript, and PHP.

#### 1.2. Objectives

- To find the CR on the basis of vote
- To notify the users about the election.
- To find the majority of anything which are being difficult to come in conclusion.

#### 1.3. Problem Statement

The majority of voters experienced issues with false voting, duplicate voting, vote rejection, and booth capturing voter lists because of its manual procedures. Hence, this online voting technique must be used to address these issues. So, for that the ideal software should be programmed to carry out the numerous duties necessary for the voting system to function. This technology will increase voting system effectiveness and permit the user data to be stored digitally. Time will be saved for votes and users and also prevent fraud and make sure a vote is fair.

#### **1.4. Scope**

Our goal is to create an atmosphere of fairness among candidates and voters alike. Anyone who wants to stand for election can do so without any reservations since this method will provide accurate results. Our primary motivation for developing this system is to benefit college users because many college related activities, such as choosing a class's CR selection, a teacher selection for a department's HOD, or the location of a tour program, will require votes or a majority to decide. This approach of online voting will effectively address every issue and save our time while providing security and preventing fake votes, duplicate votes, and vote rejection. The user may find the results in the allotted time, and the procedure will be quite simple. We had a lot of issues with paper-based voting in the past, so after considering all the possibilities, we decided to create this project that will reduce a lot of things and affect the population of the earth indirectly. The paper that was used in the voting system resulted from issues that this system played a crucial role in resolving. Tools for generating, uploading, and screening users or candidates are all part of this system. This project main goal is to develop a user-friendly and efficient voting system that simplifies the voting process for both candidate and voters. You may discover several benefits in our project over here like efficiency gains, accuracy gains, and voter participation. Our initiative provides you with fair results without displaying any authority, pressuring the voter, or doing anything else similar. People are free to choose their votes as they see fit, free from candidate pressure, and from the comfort of their own.

#### 1.5. Report Organization

In chapter 1: College elections for student councils, faculty committees, and the board of trustees may all be participated in on a digital platform called an online voting system for colleges. This technology, which replaces in-person voting and paper ballots, has advantages such as improved simplicity, accessibility, and transparency. It also assures fair elections and lessens the possibility of vote fraud. The project's goals are to discover the CR based on votes and inform users about the election. It is built on HMTL, CSS, JScript, and PHP. False voting, duplicate voting, vote rejection, and voter lists being captured in the voting booth are the primary issues with paper-based voting. The optimal software should be developed to carry out numerous functions, enhancing the efficacy of the voting system and avoiding fraud, in order to handle these difficulties. The objective is to provide accurate results, save time, and foster a climate of fairness among voters and candidates. The project's goal is to create an effective and user-friendly voting system that makes it easier for voters and candidates to cast ballots. It delivers impartial outcomes without imposing authority or exerting pressure on voters, letting individuals to cast their ballots as they see fit and free from candidate or outside pressure.

In chapter 2: Online voting systems face numerous challenges, including outdated information, false voting, duplicate voting, vote rejection, and booth capture. Users often wait for extended periods for results, leading to uncertainty. Voters' support is limited and not responsive, making it difficult for them to use the system effectively. Some users demand access to useful features and resources. Online voting can address these issues by efficiently handling issues, saving time, and providing security by eliminating bogus votes, duplicate votes, and rejected votes. However, improving voter response times and promoting rapid interaction between voters and candidates can improve the overall effectiveness of the online voting process. By overcoming these issues, internet voting can simplify the electoral process and increase the benefits of voting.

This chapter explores the development of online voting systems, including paper-based electronic voting, eBollot, Election Runner, and Election Buddy. These systems offer convenience and ease of use, but also face challenges like potential damage and confusion. Despite their popularity, these systems have limitations and challenges to consider when implementing and enhancing voting processes.

In chapter 3: The system analysis involves studying the technology, data sources, programming languages, and tools used in the project. It includes functional requirements such as user registration, login, candidate addition, voting, uploading results, viewing details, adding notices, and user access. Non-functional requirements include an intuitive user interface, good response, protection, and compatibility with various systems and devices.

Software requirements include Visual Studio Code for code editing, MySQL for database management, Microsoft Word for documentation, and Snipping Tool for screenshots. Hardware requirements include an Intel Core i3 processor, 4GB RAM, and 3-5 Mbps internet speed.

The project is technically feasible, with hardware and software requirements such as Visual Studio Code, MySQL, Microsoft Word, and Snipping Tool. Operational feasibility involves creating an account and completing the registration process. Economic feasibility determines the system's cost and benefits, with lower development expenses indicating economic viability.

System design includes data modeling, architectural design, database schema design, and interface design. User interface design focuses on the communication between users and computers, including starting the system, logging in, and displaying desired inputs and outputs.

**In chapter 4:** We have describe about implementation and testing in this part for the implementation we have use waterfall model because you know all the requirement needed for it. For testing, we have tested login and register form of the system all the part are successful executed in the system and run effectively and manually by system.

**In chapter 5:** In this chapter we concluded all the details of all chapters. We can see overall process and function preform over our system. It offers a user-friendly platform for voter registration, ensuring efficiency and fairness. It reduces fake voting, duplicate voting, and vote rejection, while maintaining records and ensuring impartial applicant evaluation.

### CHAPTER 2: BACKGROUND STUDY AND LITERATURE REVIEW

#### 2.1. Background Study

Online voting system websites frequently encounter a number of difficulties and restrictions that might affect the user experience. The lack of a good system that will benefit voters is one of the primary worries. Users could encounter obsolete information that is time-consuming and redundant. Users are facing lots of difficulty are in false voting, duplicate voting, vote rejection, and booth capturing voter lists.

Another problem is the slow resulting times from users. In Online voting system you may votes candidate who are stand for it and wait for extended periods as per admin mention and publish result throughout the dashboard. This lack of timely communication can create uncertainty.

Voter service is another area that requires improvement. Voters often face difficulties or have questions about using the online voting system effectively, but the available support may be limited or not responsive enough. Users may feel abandoned as a result, which makes it harder for them to use the site effectively.

In addition, some demand that consumers have access to useful features and resources. All voters who have participated in the process can access this system without having the necessary funds.

To address these issues, Online voting will efficiently handle all issues, save us time, and provide security by eliminating bogus votes, duplicate votes, and votes that are rejected. The process will be pretty straightforward, and the user may find the outcomes in the allocated time. After carefully weighing our options and taking into account the numerous problems we previously encountered with paper-based voting, we made the decision to develop this initiative, which would indirectly effect global population growth. The voting method's usage of paper came about as a result of problems that this system was instrumental in overcoming. This system includes tools for creating, uploading, and screening users or applicants.

Voter response times must be improved if users are to have a favorable experience. Voters and candidates may eliminate confusion and improve the overall effectiveness of the online voting process by encouraging rapid and frequent interaction.

By overcoming these difficulties and limits, internet voting may simplify the electoral process by providing voters with a more accurate, useful, and helpful platform to choose their preferred candidate and increase the benefits of voting. [1]

#### 2.2. Literature Review

This chapter discusses techniques and tools for developing a project, examining existing systems and addressing shortcomings. It aims to justify the project's importance and distinguish it from similar systems in various academic fields.

A website that links users and candidates directly to the voting platform makes the voting process easier and faster. This is known as an online voting system. Online voting has become a popular tool for individuals to choose the candidate they like as internet usage grows. We shall examine the literature and research on online voting systems and their effects on voters in this review.

#### **Existing system**

#### 1. Paper-based electronic voting system [2]

Votes are cast and counted manually using paper voting in the original form of paper-based voting systems. Paper cards or sheets might be marked manually and then electronically tallied thanks to the development of electronic tabulation systems.

The disadvantage are:

In this voting technique, the paper voting might be damaged by the ink since the procedure involves using an ancient stamp that beginners might use incorrectly.

Procedures for voting will be time-consuming.

#### 2. Electronic voting [2]

Electronic voting, commonly referred to as e-voting, includes both digital voting and online vote counting. punched cards, optical scan voting systems, customized voting stands transmission of vote results, and ballots cast over the phone, using private networks, or online. With the development of technology, there are now several types of electronic voting systems, including paper-based electronic voting, direct recording public network, voting online Direct Capture Voting electronically.

#### The disadvantage are:

- Punched cards are used in this method, therefore it damage and information might be lost.
- Too many confusing occurs for users

#### **3. eBollot** [3]

eBallot is an online voting software that simplifies election processes, offering self-managed and full-service options, making the ballot accessible from any internet-connected device. The design is user-friendly, intuitive, and provides ease of convenience.

The disadvantage are:

- The design of the UI should be improve.
- The consultants may feel less urgency due to their comfort with their expertise.
- Currently, there is no free version available, and there is an associated fee.

#### 4. Election Runner [4] [5]

Election Runner is a user-friendly, flexible, and affordable balloting platform that offers various features, including sending voting links, adding and deleting voters, and changing contact information while the ballot is live. It is popular platform of online voting system. It is created for school or organization to allowing voters to cast their vote from any location and device.

#### The disadvantage are:

- Email templates have been enhanced for customization, but locating settings can be challenging when cloning an existing ballot, so starting fresh offers a more comprehensive experience.
- It don't have free trial process and cant screenshot the UI of it.
- It don't have features of candidate profiles, ballot management, voter authentication, voter management and so on.

#### **5. Election Buddy** [6] [4]

Election Buddy is a modern cloud-based platform that streamlines elections for associations, unions, elections, polls, universities and uses in many more organization. Election Buddy simplifies voter registration, allowing them to cast ballots from home, mail, or on-site and provide a speedy results. It supports various voting methods, including electronic, mailed, and hybrid voting, and offers flexibility in various settings. It is a popular online voting platform.

#### The disadvantage are:

- It notifications were mistakenly sent to voters' spam folders, causing them to miss their vote.
- Difficulty Understanding Software.
- A slight confusion occurred during the testing process.

#### **CHAPTER 3: SYSTEM ANALYSIS AND DESIGN**

#### 3.1. System Analysis

The development of the suggested system is now thoroughly studied, and the real work starts. It will examine the technology, data sources, programming languages, and tools employed along with their rationale. The project will be described using dataflow diagrams, flowcharts, use-case diagrams, relationship and entity diagrams, etc.

#### 3.1.1. Requirement Analysis

#### 3.1.1.1. Functional Requirements

- A user shall register
- A user and admin shall login to the system.
- Admin shall able to add the candidates and election.
- User shall able to votes on their preferred candidates.
- Admin shall able to upload their result.
- Admin shall view the details.
- Admin shall able to add notice.
- User shall able to view the notice

#### USE-CASE DIAGRAM

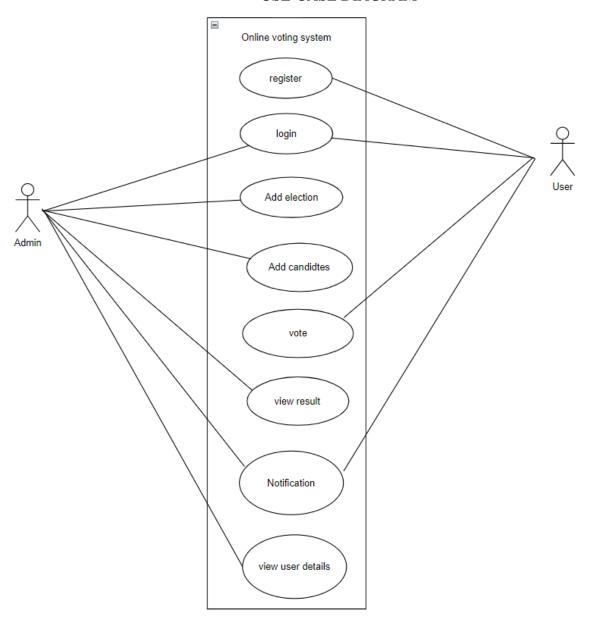


Figure 1: Use-case diagram

#### **3.1.1.2.** Non Functional Requirements

- The system must have intuitive UI
- The system must have a good response.
- The system must to be protected
- The system must be compatible with different systems and devices

#### 3.1.1.3. System Requirement

SN	Software	Purpose
1	Visual Studio Code	Code Editor
2	MySQL	DBMS to store data and information
3	Microsoft Word	Documentation
4	Snipping Tool	Screenshots

Table 1: Software Requirements

SN	Hardware Requirements	Specification
1	Processor	Intel Co re i3 2.0 GHz or higher
2	RAM	4 GB or higher
3	Internet Speed	3-5 Mbps

Table 2: Hardware Requirements

#### 3.1.2. Feasibility Analysis

#### 3.1.2.1 Technical Feasibility

Our project is also technically feasible, as it uses hardware such as Process Intel Co re i3 2.0 GHz or higher RAM 4 GB or higher and Internet Speed 3-5 Mbps and software requirement are Visual Studio Code for Code Editor, MySQL for DBMS to store data and information, Microsoft Word for Documentation and Snipping Tool for Screenshots by effectively implementing our system employing the most recent technologies.

#### 3.1.2.2 Operational Feasibility

To register in our project online voting system, first, you need to create a account and complete the given process. Once the registration is completed now log in to system after that you can enter to the system directly and access the all the facility provided over there.

#### 3.1.2.3 Economic Feasibility

Economic viability determines the suggested system's cost and benefits. If the development expenses of a project are lower than the projected costs, the project is economically feasible. These benefits and drawbacks could be material or intangible. Because there is less likelihood of intangible expenses, it is easy to estimate the project's cost, where as our project provides services free of cost.

#### 3.1.2.4 Schedule Feasibility

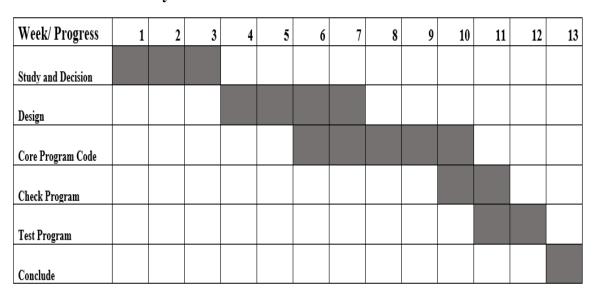


Figure 2: Gantt Chart

#### 3.1.3 Data Modeling (ER Diagram)

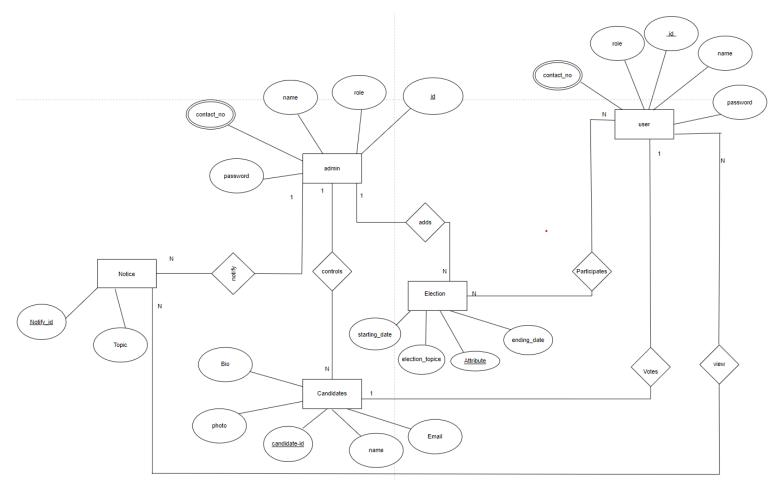
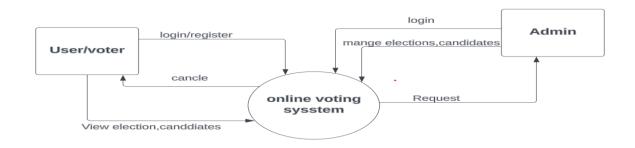


Figure 3: E-R Diagram

#### 3.1.4. Process Modeling (DFD Make 2 level DFD)



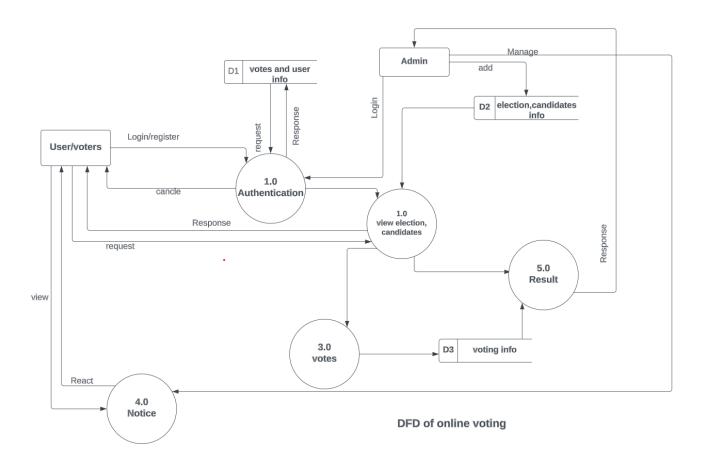


Figure 4: DFD of online voting

#### 3.2. System Design

#### 3.2.1 Architectural Design

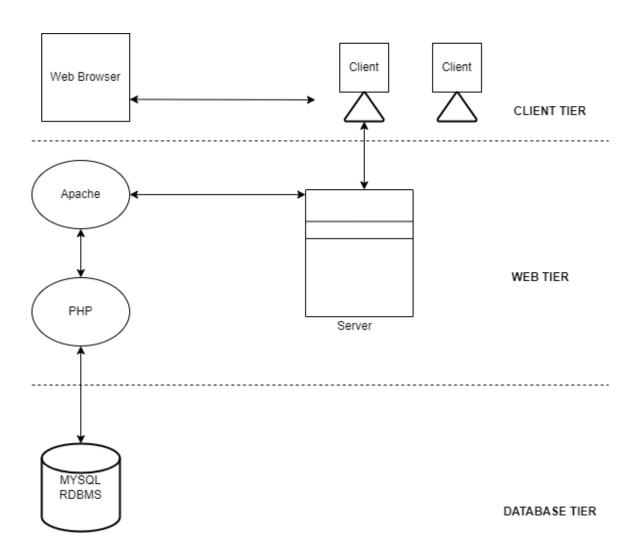


Figure 5: Architectural design

#### 3.2.2. Database Schema Design

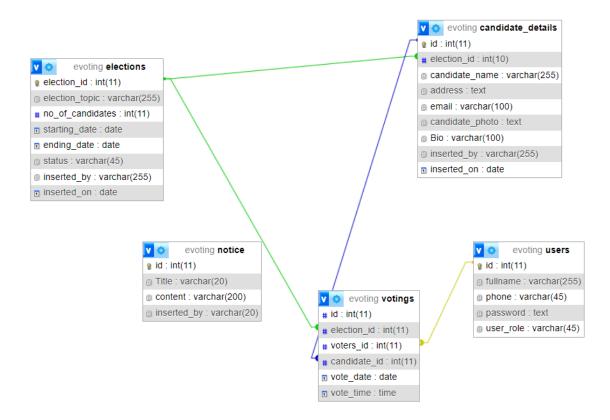
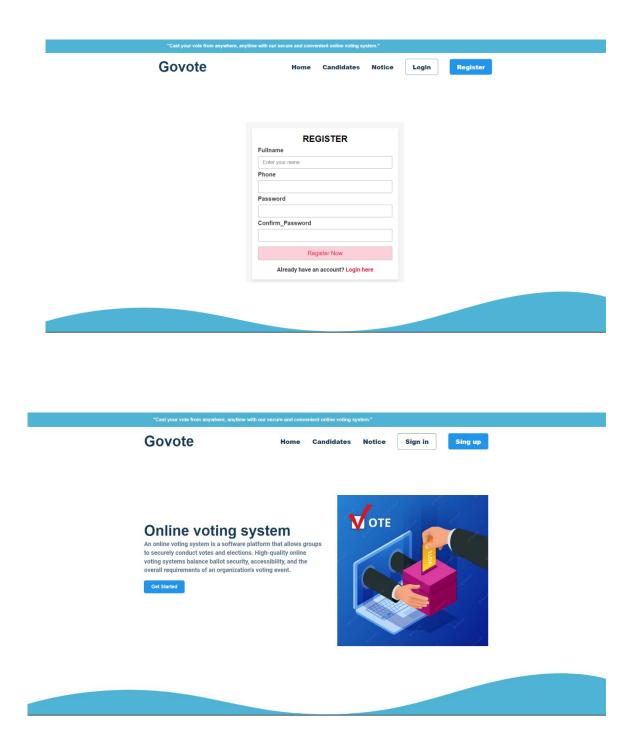


Figure 6: Database Schema

#### 3.2.3 Interface Design (UI Interface/ Interface Structure Diagram)



#### **CHAPTER 4: IMPLEMENTATION AND TESTING**

#### 4.1. Implementation

#### 4.1.1. Tools Used

The tools that are uses are:

#### 4.1.1.1 Waterfall module

To implement the project, we are going to use the waterfall model (outcome of one phase acts as input for next phase). Our project's description is stable. Since we have well known, clean and fixed requirements therefore its best fits for the software development. This model is simple, easy to comprehend and user friendly. Phases are processed and finished one at a time in this model, and they do not overlap. The waterfall model works well for smaller tasks with well-defined sequences. The following illustration is a representation of the different phases of the Waterfall Model.

#### Waterfall model

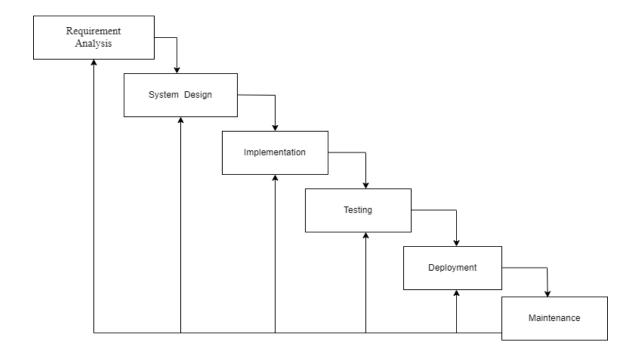


Figure 7 Waterfall Mode

It is easy to understand technology. The scope of our project is secure. As we have clear, certain needs, software development is best suited because of this. Its model is user-friendly, clear, and straightforward. The phases in this model are processed and finished one at a time, with no overlap. For smaller projects where the sequence is clearly defined,

the waterfall paradigm works well.

#### 4.1.1.2 Xampp

Xampp is open source software package used to store data in a database. It is free, easy-to-install Apache distribution that includes MariaDB, PHP, and Perl, making it user-friendly and easy to install and to use. In our project we use Xampp for storing a details of users, candidates, results and so on.

#### 4.1.1.3 Visual Studio Code

Visual Studio Code is open source software used for coding the program. It is easy to use and free to-install. It is a code editor designed for building and debugging modern web and cloud applications, redefining and optimizing the process. In our project we use Visual Studio Code for coding to make project visually active and perform various function by doing coding like HTML for front-end, PHP for connection to database, JavaScript for making site interactive and so on.

#### 4.1.1.4 Snipping Tool

Snipping Tool is a tool use to take a snapshot of your PC screen, make changes or notes, save, and share the edited content. We use snipping tool in our project because we need snapshot in documentation part.

#### 4.1.1.5 Microsoft Word

Microsoft Word is a word processing program used for simple and complex documentation and it is prefect platform for it. We used Microsoft Word for making documentation for our project.

#### 4.1.1.6 Lucid chart and Diagram.io

Lucid chart & Diagram.io is application used for creating flowchart, diagram providing designs for anything from brainstorming to project management. In our project we use Lucid chart and Diagram.io for making use-case, DFD, ER etc.

#### 4.1.2. Implementation Details of Modules

#### **Users**

User are required to provide necessary information such as their name, number, and password. This allows new users to create their accounts within the voting system, enabling them to access the system's functionalities.

Both users and administrators have the ability to log in to the system using their respective credentials. Once logged in, users can perform various actions within the system, while administrators gain access to additional privileged functionalities. This login mechanism ensures secure access to the system and allows users and admins to interact with the available features.

#### Admin

Administrators, in particular, have certain exclusive capabilities. They can add candidates to the system for different elections, providing details such as the candidate's name, party affiliation, and any other relevant information. Additionally, administrators can add new elections to the system, specifying details such as the election name and date.

Users are given the ability to vote for their preferred candidates once they are logged in. They can make their selections based on the candidates or specific election options provided. This allows users to actively participate in the voting process and have their voices heard.

#### **System Flow**

Administrators have the responsibility to upload the voting results to the system once an election concludes. They can input the aggregated voting data, and the system will process it to determine the winners and other relevant statistical information. This functionality ensures transparency and accountability in the election process.

Moreover, administrators can view various details within the system. They can access user details, including names, email addresses, and other relevant information. This feature enables administrators to manage the user base effectively and maintain the integrity of the system.

Administrators can add notices to the system, providing users with important updates and announcements. The system offers a user-friendly interface for registration, login, voting, and viewing notices, while administrators can add candidates, upload results, and view details.

#### 4.2. Testing

Software testing is a crucial part of software development life cycle. Software testing is the process of ensuring that the system or product works as it intend to or say meets the requirement and specification. Mostly testing should be started as early as possible in order to reduce the cost and loss of time. But testing can be done at the end of the implementation before the time of the deployment. A system or an application can never be 100% free from bugs or error. So, testing helps in separating the error with that of the successful outcome so that updating as well as bug fixing can be done at time. In this project, unit testing and system testing has been applied.

#### 4.2.1. Test Cases for Unit Testing

Te	Test	Test	Test data	Excepted	Actual	Rem
st	Description	step		outcome	outcome	arks
id						
1	Valid	TC_OV_Register	Full name:	Inserted	Inserted	Pass
	format of	_001	Ram khatri	successful	successful	
	full name					
2	Invalid	TC_OV_Register	Full name:	Please	Please match	Fail
	format of	_002	Reshma	follow the	the requested	
	full name			format	format	
2	Supporting s	step for T2(fail)	L			
	Enter a full n	ame not only first na	ıme also last nam	e too		
3	Invalid	TC_OV_Register	Phone number	Inserted	Inserted	Pass
	format of	_003	:98482029011	successful	successful	
	mobile					
	number					
4	Invalid	TC_OV_Register	phone number	Please	Mobile number	Fail
	format of	_004	:7891247590	follow the	must start with	
	mobile			format	9	
	number					
4	Supporting s	step for T4(fail)	ı	1		
	Enter mobile	number start with 9	and have 10 digi	ts		
	Enter mobile	number start with 9	and have 10 digi	ts		

5	Valid	TC_OV_Register	Password:	Please	Password must be	Fail						
	format of	_005	1234	follow the	at least 5							
	password			format	characters long							
5	Supporting step for T5(fail)											
	Enter at least	5 characters long										
6	Valid	TC_OV_Register	Password:	Please	Password must	fail						
	format of	_006	12345aB	follow the	include at least							
	password			format	one capital letter							
6	Supporting s	step for T5(fail)										
	Enter at least	t 5 characters long w	rith one small let	ter and one c	apital letter with a	t least						
	one special c	haracter("!,@,#,\$,%,	,^,&'')									
	Valid	TC_OV_Register	Password:	Inserted	Inserted	Pass						
	format of	_009	12345Aa@	successful	successful							
7	password											

Table 3: Unit testing for Register

#### 4.2.2. Integration testing

Te	Test	Test	Test data	Excepted	Actual	Remar		
st	Descripti	step		outcome	outcome	ks		
id	on							
1	Enter the	TC_OV_	Phone	Validation	Invalid	Fail		
	valid	Login_00	number:78912475	successfull	number &			
	Phone	1	90	у	password			
	number		Password:12345ab					
	and valid							
	password							
1	Supporting	step for T1	(fail)					
	• Ve	rify if the us	er already exists in the	e database				
		•	•					
	En	ter moone m	amber start with 9 and	i nave 10 digit	S			
	In password there should be at least one special character and one capital							
	lett	er						
	Enter the	TC_OV_	phone number:	Invalid	Invalid			
	Enter the invalid	TC_OV_ Login_00	phone number: 9848202901,	Invalid phone	Invalid phone	Fail		
2	invalid phone		1			Fail		
2	invalid	Login_00	9848202901,	phone	phone	Fail		
2	invalid phone	Login_00	9848202901, password:Ram@1	phone	phone	Fail		
	invalid phone and valid password	Login_00 2	9848202901, password:Ram@1 234	phone	phone	Fail		
2	invalid phone and valid password	Login_00	9848202901, password:Ram@1 234	phone	phone	Fail		
	invalid phone and valid password  Supporting	Login_00 2 step for T2	9848202901, password:Ram@1 234	phone number	phone	Fail		
	invalid phone and valid password  Supporting • Ver	Login_00 2 g step for T2 rify if the use	9848202901, password:Ram@1 234  2(fail) er already exists in the	phone number	phone	Fail		
	invalid phone and valid password  Supporting  Ver Ent	Login_00 2 s step for T2 rify if the use	9848202901, password:Ram@1 234  2(fail) er already exists in the	phone number	phone number			
	invalid phone and valid password  Supporting  Ver Ent	Login_00  2  g step for T2  rify if the use ter a validate ter a passwor	9848202901, password:Ram@1 234  2(fail) er already exists in the	phone number	phone number			

	Enter the	TC_OV_	Phone	Number:			
3	valid	Login_00	9844703	217,	Invalid	Invalid	Fail
	number	3	password	i :	password	password	
	and		abcd1323	3			
	invalid						
	password						
3	Supporting	step for T3	l B(fail)				
	• Ve	rify if the us	ar alraadu	evicte in th	a data <b>h</b> asa		
	Vei	iny ii die us	er arready	exists iii tii	e uatabase		
	• Ent	er a validate	ed passwor	rd			
	• Ent	er a passwoi	rd having o	one small le	tter and capita	l letter as well a	s special
	cha	racter ("!,@	,#,\$,%,^,&	\(\chi''\)	-		-
4	Enter the	TC_OV_	Phone	Number:			
	valid	Login_00	9841629	070,	Insert	Insert	Pass
	number	4	password	<b>l</b> :	successfull	successfully	
	and valid		1234aB@	<u>a</u>	у		
	password						
L						1	

Table 4: Integration testing for login

#### **4.2.3.** Test Cases for System Testing

Test	Test	Test	Test data	Excepted	Actual	Remark
id	Descripti	step		outcome	outcome	S
	on					
1	Register	TC_OV_	Full name: Reshma	Registered	Registered	Pass
1		Register_ 001	Pokhrel Phone number: 9841629070 Password:1234aB@	Successfully	Successfully	
2	Login	TC_OV_ Login_00 2	Phone number: 9841629070 Password:1234aB@	Redirect to dashboard	Login Successfully	Pass
3	Vote for election	TC_OV_ vote_003	<ul> <li>First go to the election available side bar</li> <li>Now vote a candidate which are mention over their</li> </ul>	Are you sure Once you vote your decision can't be change	Vote	pass

4	Login		•	First	go	to	Add	Insert	pass
	(Admin)	TC_OV_		election	side	bar	Successfully	Successfully	
	Core	LoginAd	•	Now		Add			
	operation	min_004	_	election	1	7100			
			•	And no candida		d the			
			•	After the noti	•	asses			
			•	View th	ne resi	ult			

Table 5: System Testing

### CHAPTER 5: CONCLUSION AND FUTURE RECOMMENDATION

#### **5.1. Conclusion**

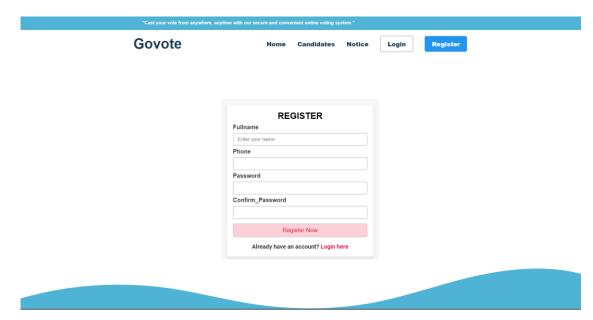
By offering a platform for voter registration, the online voting system seeks to provide benefits for both users and candidates while assuring efficiency and fairness. It enables administrators to decrease fake voting, duplicate voting, and vote rejection while also verifying voter results and candidate information. Administrators may maintain records and guarantee impartial applicant evaluation thanks to the system's storage of data in a central database. people may monitor the progress of their applilactions and get alerts when new people sign up.

#### **References**

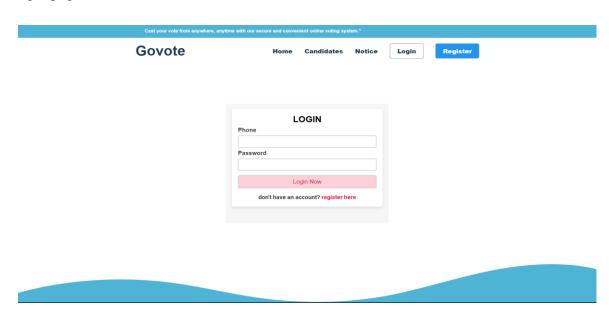
- [1] "ElectionBuddy," [Online]. Available: https://electionbuddy.com/.
- [2] Atiya Parveen, "IJCSMC," May 2013. [Online]. Available: https://ijcsmc.com/docs/papers/May2013/V2I5201354.pdf.
- [3] eballot, 12 07 2014. [Online]. Available: https://www.eballot.com/.
- [4] "G2," [Online]. Available: https://www.g2.com/products/election-runner/reviews#survey-response-4803595.
- [5] "Election Runner," [Online]. Available: https://electionrunner.com/.
- [6] R. G. a. M. Director, "Election Buddy," [Online]. Available: https://electionbuddy.com/.

# Appendix

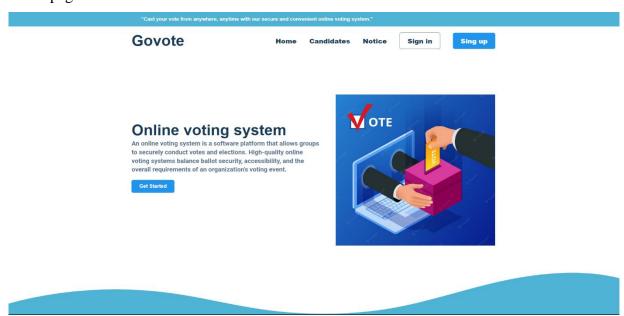
#### Registration page for users



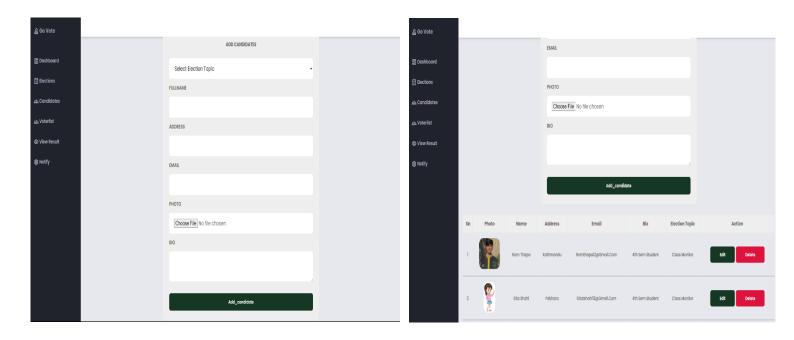
#### Login page



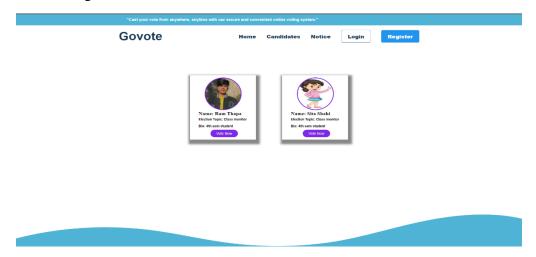
#### Home page



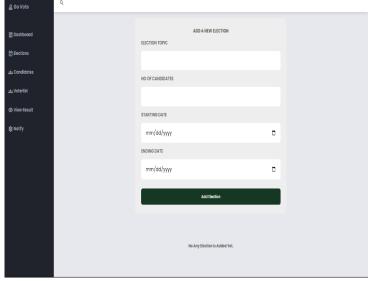
#### Admin page for adding candidates

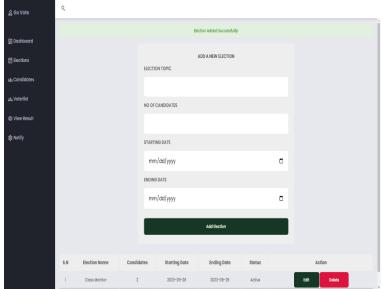


## After adding candidate

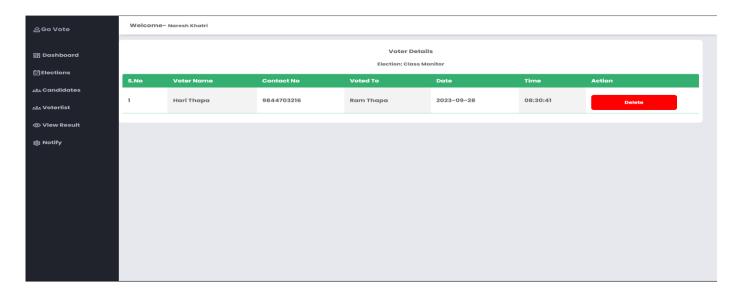


## Admin page for adding election

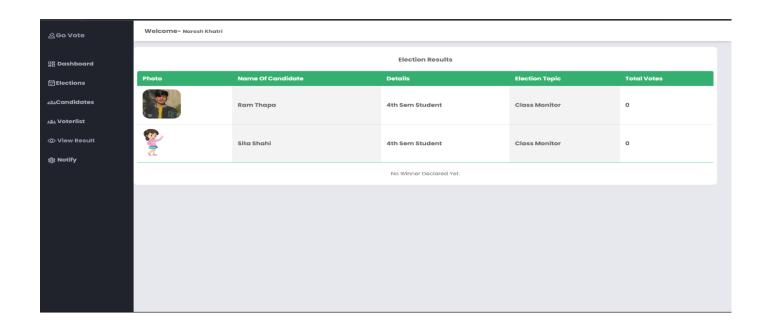




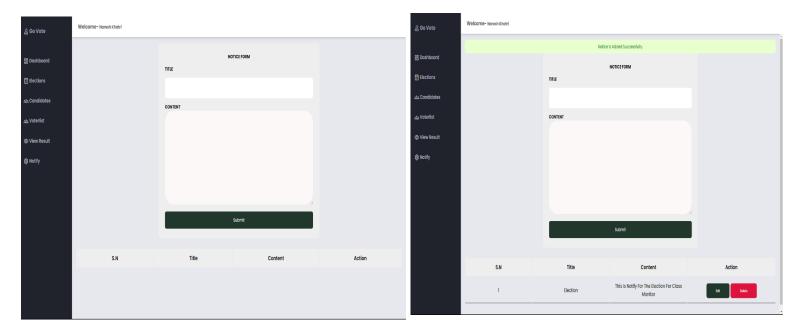
#### Voter Details



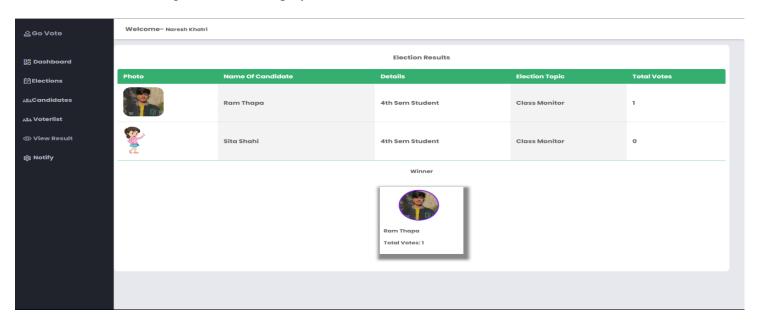
#### **Election Result**



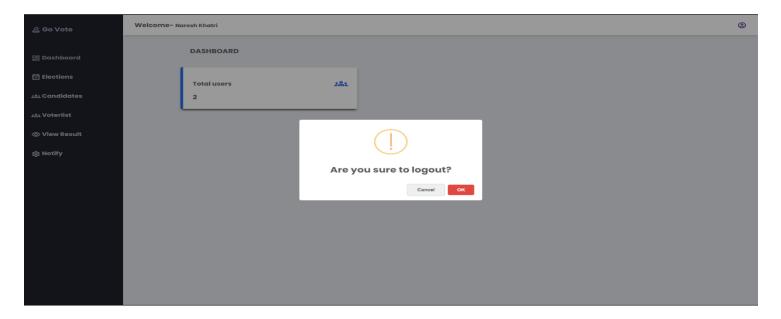
#### Admin passes a notice to user though this page



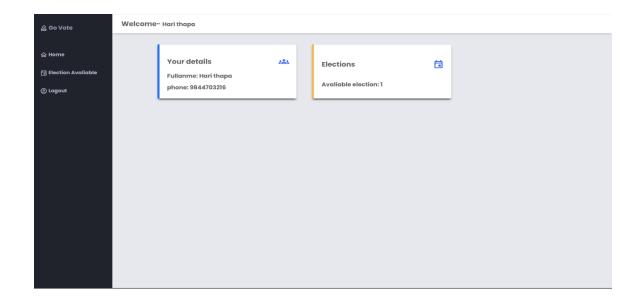
#### After voting winner will display



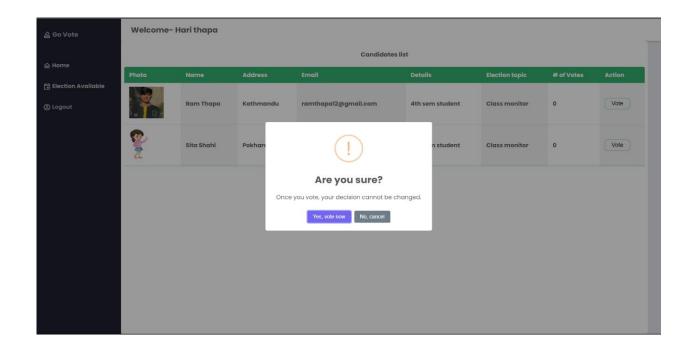
#### Logout session



#### Dashboard of users



## After voting



## Voting page for users



## Notice page

