VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI-590 018

2nd YEAR C_PRACTICING PROJECT WORK REPORT
on

"Online voting system"

SUBMITTED BY

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Under the Guidance of

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(NBA Accredited for academic years 2018-19, 2019-20, 2020-21)

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Channasandra, Dr.Vishnuvardan Road, Bengaluru-560 098
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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

(NBA ACCREDITED FOR ACADEMIC YEARS 2018-19, 2019-20, 2020-21)

CERTIFICATE

Certified that the **C Practicing Project** work entitled **"Online *voting system*"** has been successfully carried out by **Acheta Tangade** bearing USN 1RN19CS004, a bonafide student of **RNS Institute of Technology,** currently studying 2nd year **Bachelor of Engineering in Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during academic year 2020-21. It is certified that all corrections/suggestions indicated by the **Mr. Hemanth S** have been incorporated in the report deposited in the departmental library.

Mr. Hemanth S **Associate professor**	**Dr. Kiran P** **Professor & HOD**	**Dr. M K Venkatesha** **Principal**

ABSTRACT

The word “vote” means to choose from a list, to elect or to determine. The main goal of voting (in a scenario involving the citizens of a given country) is to come up with leaders of the people’s choice.

Most countries have problems when it comes to voting. Some of the problems involved include ridging votes during election, insecure or inaccessible polling stations, inadequate polling materials and also inexperienced personnel. This online voting/polling system seeks to address the above issues. It should be noted that with this system in place, the users, citizens in this case shall be given ample time during the voting period. They shall also be trained on how to vote online before the election time. The system is secured so that only registered voter may be able to vote and only once that means no ridging votes, no double votes as well as no overvotes or undervotes system generate report according to the number of student vote on each candidate and find the percentage of each candidate.

ACKNOWLEDGMENT

Any achievement, be it scholastic or otherwise does not depend solely on the individual efforts but on the guidance, encouragement and cooperation of intellectuals, elders and friends. A number of personalities, in their own capacities have helped us in carrying out this project work.

I would like to take this opportunity to thank them all. I would like to thank Dr. M K Venkatesha, Principal, RNSIT, Bangalore, for his support towards completing this mini project. I would like to thank Dr. Kiran P, Prof. & Head, Department of Computer Science & Engineering, RNSIT, Bangalore, for his valuable suggestions and expert advice. I deeply express sincere gratitude to my mentor Mr. Hemanth S Department of CSE, RNSIT, Bangalore, for his able guidance, regular source of encouragement and assistance throughout this project. I also would like to thank all the teaching and non-teaching staff of department of Computer Science & Engineering, RNSIT, Bengaluru for their constant support and encouragement.

Date: 14/07/2021 Acheta Tangade

Place: Bengaluru 1RN19CS004

CONTENTS

1. INTRODUCTION

"ONLINE VOTING SYSTEM" is an online voting technique. In this system people who have citizenship of Kenya and whose age is above 18 years of age and any sex can give his\her vote online without going to any physical polling station. There is a database which is maintained in which all the names of voters with complete information is stored.

In "ONLINE VOTING SYSTEM" a voter can use his\her voting right online without any difficulty. He\She has to be registered first for him/her to vote. Registration is mainly done by the system administrator for security reasons. The system Administrator registers the voters on a special site of the system visited by him only by simply filling a registration form to register voter. Citizens seeking registration are expected to contact the system administrator to submit their details. After the validity of them being citizens of India has been confirmed by the system administrator by comparing their details submitted with those in existing databases such as those as the Registrar of Persons, the citizen is then registered as a voter. After registration, the voter is assigned a secret Voter ID with which he/she can use to log into the system and enjoy services provided by the system such as voting. If invalid/wrong details are submitted, then the citizen is not registered to vote.

OBJECTIVE

1. Registration of the voter is done by ELECTION COMMISION OF INDIA.
2. ELECTION COMMISION OF INDIA can change the information any time if required.
3. Registration of the Voter depends upon the information filled by the user.
4. Voter is given a unique ID and PASSWORD.
5. In the DATABASE information of every voter is stored.
6. Database shows the information of every user.

1.1 PROBLEM STATEMENT

The major problem with current system is that it involves a lot of manual operations which prone to errors and are definitely slow. To overcome these limitations online voting system is used.

Program to implement “Online Voting System” and to:

- Check out the results after election is completed.
- Deliver information regarding the elections.
- Deliver information about the voters, different political parties and their leaders.

1.2 LIMITATIONS OF EXISTING SYSTEM

The problems of the existing manual system of voting include the following:

1. **Expensive and Time consuming:** The process of collecting data and entering this data into the database takes too much time and is expensive to conduct, for example, time and money is spent in printing data capture forms, in preparing registration stations together with human resources, and there after advertising the days set for registration process including sensitizing voters on the need for registration, as well as time spent on entering this data to the database.

2. **Too much paper work:** The process involves too much paper work and paper storage which is difficult as papers become bulky with the population size.

3. **Errors during data entry:** Errors are part of all human beings; it is very unlikely for humans to be 100 percent efficient in data entry.

4. **Loss of registration forms:** Some times, registration forms get lost after being filled in with voters’ details, in most cases these are difficult to follow up and therefore, many remain unregistered even though they are voting age nationals and interested in exercising their right to vote.

5. **Short time provided to view the voter register:** This is a very big problem since not all people have free time during the given short period of time to check and update the voter register.

6. Above all, a number of voters end up being locked out from voting.

1.3 ADVANTAGES OF PROPOSED SYSTEM

In the traditional voting system, voting is done using ballot paper and counting is done manually. This manual system is very uneconomical, requiring large manpower and it takes a lot of time. Possibility of invalid or fraud votes cannot be ruled out in the current voting system.

The online voting system makes use of computer and internet which makes the overall voting procedure easy. It saves time and avoids errors such as invalid votes and miscalculation of votes. Voting and counting both are done with the help of a computer, the election process is easy, and this system proves to be much economical compared to the manual system.

Maximizes participation: It is easy and efficient as it takes only a minute or two to vote. It is convenient i.e people can vote online when it suits them.

It saves money: There is no supply costs (no paper ballots, no postage and no printing). There is no need of equipment as it is 100% hosted and electronic. It is automated i.e no time or resources needed for manual hand counts. It is also cost effective.

No double voting: Cases of double voting are eliminated since verification process of the system ensures one cannot vote more than once.

In simple words, the following are the prominent benefits of online voting system:

- Efficient than manual method
- Instant poll result
- Easy to keep track of voters
- Cost effective
- Saves time
- Use of internet

2. REQUIREMENTS

2.1 HARDWARE REQUIREMENT

- Processor: Intel Pentium 4 1.2GHz
- Storage: 1 GB
- Memory: 512 MB

2.2 SOFTWARE REQUIREMENT

- Tools: DEV C++ IDE
- Programming Language: C Language
- Operating System: Windows

System Requirements

The information required for system includes:

- The voter details: All the necessary information about the voter i.e. voter name, ID number, voter security password.
- The candidate details: All necessary information about the candidate.

2.3 FUNCTIONAL REQUIREMENTS

This refers to the necessary tasks, action or activities that the system must accomplish, or enable the user to do. They are:

- The system shall provide appropriate error message and users shall be accorded sufficient help on how to carry-on tasks.
- Authentication: The system shall identify each authorized voters every time they use the system using ID number.
- System shall impose a successful voter determination strategy in order to determine a successful voter in order to avoid multi voting.
- Make vote counting convenient.

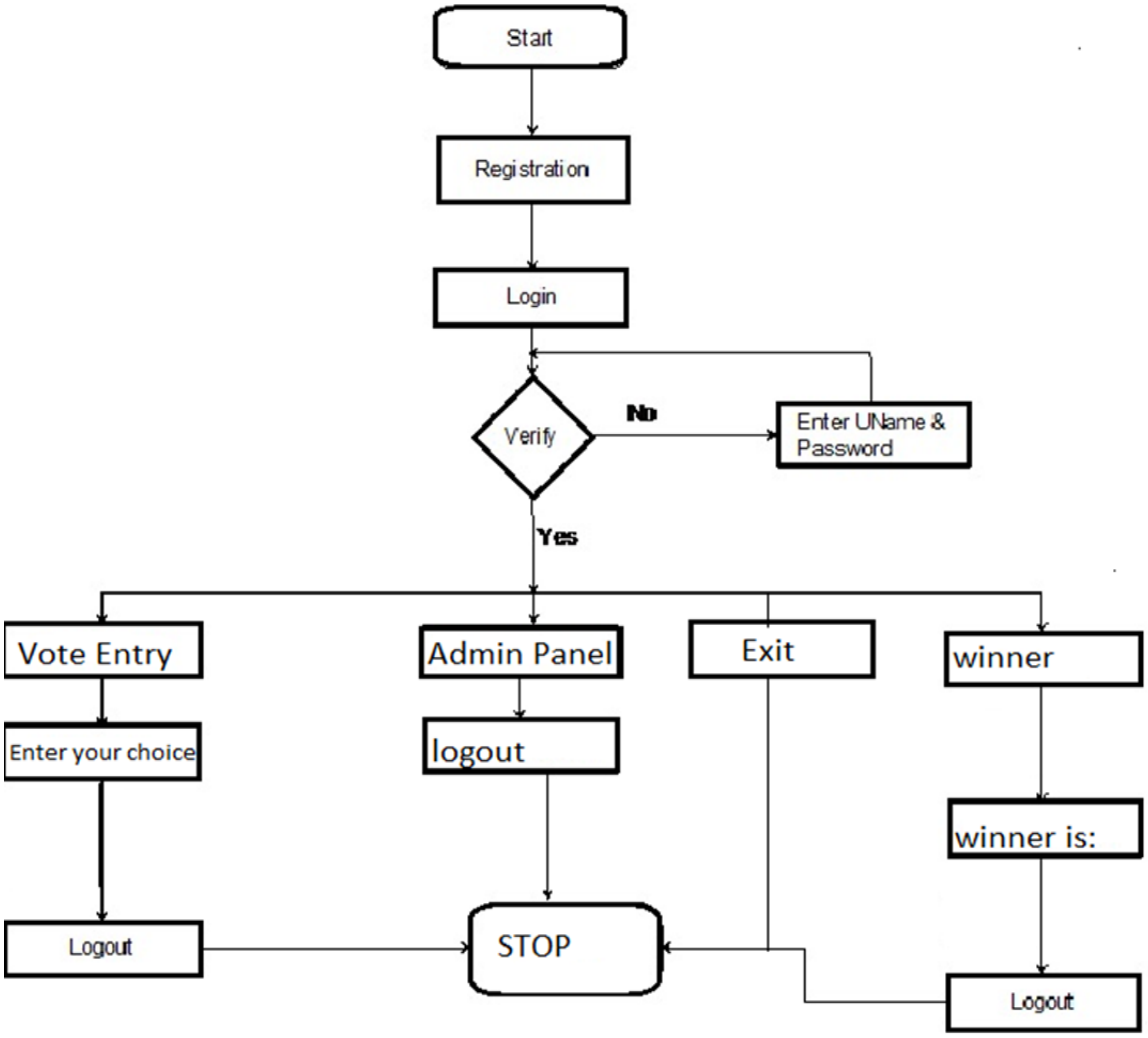
2.4 NON-FUNCTIONAL REQUIREMENTS

A non-functional requirement is a requirement that specifies criteria that can be used to judge the operation of system, rather than specific behaviours.

- Reliability
- Security
- Performance
- Integrity
- Scalability
- Usability
- Availability and accessibility

3. SYSTEM DESIGN

3.1 FLOW CHART



4. IMPLEMENTATION

4.1 DATA STRUCTURE

Structure: Structure is a collection of data items of same or dissimilar data type. Each data item is identified by its name and type.

Files: A file is a block of useful data which is available to a computer program and is usually stored on a persistent storage medium. Storing a file on a persistent storage medium like hard disk ensures the availability of the file for future use. These days, files stored on computers are a good alternative to paper documents that were once stored in offices and libraries.

4.2 PHASES

- Users are first required to register themselves, providing various voting-related details. These entries are then checked by the system database to see if the user fulfils the voting criteria.
- After registration the user is given a secret Login ID, with which they can login and access the services.
- If the ID is invalid or incorrect, the user will not be able to access the services.
- In the Voting phase, the user can cast a vote to his required candidates.
- In the Admin panel, admin can check the votes given for all the candidates. This is protected with a password only known to admin.
- In Voter list, admin can check the details of voters which is also protected by a password.
- And lastly is the winner in which you can check who is the winner with how many votes.
- Then you can exit to get out the panel.

4.3 CODE

Structure definition

```
typedef struct voter_information
{
        char id[10];
        char name[20];
     char birth_date[15];
}node;
node *head;
```

4.3.1 Code for main() function

```
int main()
{
        int c1=0,c2=0,c3=0,c4=0,c5=0;
        system("cls");  //to clear system screen
        printf("\n\n\n\t   ---WELCOME TO ONLINE VOTING SYSTEM---   \n\n");
        sleep(1);
        printf("\t\t  --PLEASE ENTER ONE(1) FOR LOGGING INTO MAIN VLOGES---
\n\n\n");
        int B;
        scanf("%d",&B);
        if(B == 1)
        {
                main_loges(c1,c2,c3,c4,c5);
        }
        return 0;
}
```

4.3.2 Code for main_loges() function

```
void main_loges(int c1,int c2,int c3,int c4,int c5)
{
	int count=0,R=3;


	while(1)
	{
		system("cls");  //works under windows.h
		printf("\n\n\n");
		printf("\t\t\t 1 . Registeration	\n");

		printf("\t\t\t 2 . Vote Entry	\n");

		printf("\t\t\t 3 . Admin Panel	\n");

		printf("\t\t\t 4 . Winner	\n");

		printf("\t\t\t 5 . EXIT	\n");

		printf("\t\t\t 6 . Voter list	\n");

		printf("\t\t\t ---FIRST GIVE VOTER ENTRY THEN GO FOR VOTING--
-	\n");

		printf("\t\t\t ---Enter your choice here :  ");

		int T;
		scanf("%d",&T);
		switch(T)
		{
			case 1:
					regi(c1,c2,c3,c4,c5);
			break;
			case 2:
					voter_insert(count,c1,c2,c3,c4,c5,R);
			break;
			case 3:
					admin(&c1,&c2,&c3,&c4,&c5);
			break;
			case 4:
					winner(c1,c2,c3,c4,c5);
			break;
			case 5:
					exit(0);
			break;
			case 6:
					display(c1,c2,c3,c4,c5);
			break;
			default:return;
		}
	}
}
```

4.3.3 Code for voting() function

```
void voting(int *c1,int *c2,int *c3,int *c4,int *c5)
{
	int B,j;
	system("cls");
	printf("\n\n\n");
	printf("\t\t ----CANDIDATES ARE:--- \n");
	sleep(1);
	printf("\t\t\t   NAME          SYMBOL \n\n");
	printf("\t\t\t 1. xyz       1.hand \n\n");
	printf("\t\t\t 2. abc       2.leaf \n\n");
	printf("\t\t\t 3. zzz       3.mango \n\n");
	printf("\t\t\t 4. 123       4.box \n\n");
	printf("\t\t\t 5. wee       5.joining hands \n\n");
	printf("\t\t\t PLEASE ENTER YOUR CHOICE   \n\n\n");
	for(j=1 ; j<=1 ;j++)
	{
		scanf("%d",&B);
		if(B == 1)
		{
			(*c1)++;
		}
		else if(B == 2)
		{
			(*c2)++;
		}
		else if(B == 3)
		{
			(*c3)++;
		}
		else if(B == 4)
		{
			(*c4)++;
		}
		else if(B == 5)
		{
			(*c5)++;
		}
		else
		{
			printf("\t\t\t --ENTER RIGHT CHOICE-- \n");
			main_loges(*c1,*c2,*c3,*c4,*c5);
		}
	}
	int R;
	system("cls");
	printf("\n\n\n");
	printf("\t\t\t ENTER ONE(1) TO VIEW PRESENT WINNER  OR \n\n\n ENTER ZERO(0) FOR MAIN
LOGES\n\n");
	scanf("%d",&R);
	if(R == 1)
	{
		winner(*c1,*c2,*c3,*c4,*c5);
	}
   if(R == 0)
   {
      main_loges(*c1,*c2,*c3,*c4,*c5);
	}
}
```

4.3.4 Code for show() function

```
void show(int c1,int c2,int c3,int c4,int c5)
{
   system("cls");
   printf("\n\n\n");
   printf("\t\t\tVote Count\n\n\n");
   sleep(1);
   printf("\t\t\t xyz got %d votes\n",c1);
   sleep(1);
   printf("\t\t\t abc got %d votes\n",c2);
   sleep(1);
   printf("\t\t\t zzz got %d votes\n",c3);
   sleep(1);
   printf("\t\t\t 123 got %d votes\n",c4);
   sleep(1);
   printf("\t\t\t wee got %d votes\n",c5);
   sleep(1);

   int R;
   printf("\t\t\t ENTER ONE(1) FOR MAIN LOGES OR \n\n\n ENTER ZERO(0) FOR
EXIT");
   scanf("%d",&R);
   if(R == 1)
   {
      main_loges(c1,c2,c3,c4,c5);
   }
   if(R != 1)
   {
      exit(0);
   }
}
```

4.3.5 Code for voter_insert() function

```
void voter_insert(int count,int c1,int c2,int c3,int c4,int c5,int R)
{
	node p;
	FILE * f;
	int i,t;
	char n[25],b[15],idd[10];
	getchar( );
	for(R=3 ; R>0 ; R--)
	{
		system("cls");
		printf("\n\n\n\n");
		f = fopen("voting.txt", "r");
		if (f == NULL)
		{
		printf("\n Error in opening\n");
		exit(0);
		}
		printf("\t\t ---PLEASE ENTER THE INFORMATION AS REGISTERED---  \n");
		sleep(1);
		printf("\t\t  IF YOU INPUT WRONG INFORMATION %d TIMES THEN PROGRAM STOPS
AUTOMATICALLY  \n",R);
		sleep(1);

		printf("\t\t\tENTER YOUR ID NUMBER  :  \n");
		gets(idd);
		printf("\t\t\tENTER YOUR NAME  :  \n");
		gets(n);
		printf("\t\t\tENTER YOUR BIRTH DATE  :  \n");
		gets(b);

		while (fread( & p,sizeof(p), 1, f)==1)
		{
		if (strcmp(p.name, n) == 0 && strcmp(p.id,idd)==0  && strcmp(p.birth_date,b)==0)
			{
			count++;
				if(count > 1) ///To ensure that same person is not voting 2 times
				{
					system("cls");
					printf("\t\t\t ---YOU CAN NOT GIVE VOTE MORE THAN 1 TIME---  \n");
					printf("\t\t\t  PRESS 1 TO GO TO MAIN LOGES \n OR \n PRESS 0 TO
EXIT   \n");
					scanf("%d",&i);
					if(i==1)
						main_loges(c1,c2,c3,c4,c5);
					else
						exit(0);
					break;
				}
				voting(&c1,&c2,&c3,&c4,&c5);
				break;
			}
		}
	  printf("\n\n\n");
		printf("\t\t  Your information is wrong  \n");
		sleep(1);
		printf("\t\t ---PLEASE REENTER--- \n");
		sleep(1);

	}

	if(R==0)
	{
		stop();
		//break;
	}
	fclose(f);

	printf("Enter 1 to enter main loges \n\t\t or \n Enter 0 to exit\n");
	scanf("%d",&t);
	if(t==1)
		main_loges(c1,c2,c3,c4,c5);
	else
		exit(0);

}
```

4.3.6 Code for regi() function

```
void regi(int c1,int c2,int c3,int c4,int c5)
{
        system("cls");
        printf("\n\n\n\n");
        FILE *f;
        node p;
        int t;
        f = fopen("voting.txt", "a+");

        printf("\n Enter id: ");
        scanf("%s",p.id);

        printf("\nEnter name: ");
        scanf("%s",p.name);

        printf("Enter birth data:");
        scanf("%s",p.birth_date);

        fwrite( & p, sizeof(p), 1, f);
        printf("\nSuccessfully registered\n");
        fclose(f);

        printf("Enter 1 to enter main loges \n\t\t or \n Enter 0 to exit\n");
        scanf("%d",&t);
        if(t==1)
                main_loges(c1,c2,c3,c4,c5);
        else
                exit(0);
}
```

4.3.7 Code for display() function

```
void display(int c1,int c2,int c3,int c4,int c5)
{
	int B;
	printf("\n\n\n");
	printf("\t\t\tEnter Password to unlock VOTER LIST\n\n");
	scanf("%d",&B);
	if(B==12345)
	{
		system("cls");
		printf("\n\n\n\n");
		int i;
		node p;
		FILE * f;
		f = fopen("voting.txt", "r");
		if (f == NULL)
		{
		printf("\n No contacts detected yet!:\n");
		exit(0);
		}
		printf("\n\n\n Voter details are as follows:\n\n ");
		printf("\tID\t\tNAME\t\tBIRTH-DATE\n");
		while (fread( & p,sizeof(p), 1, f)==1)
		{

		printf("\t%s\t\t%s\t\t%s \n", p.id, p.name, p.birth_date);

		}
		fclose(f);

		printf("\n\nEnter 1 to enter main loges \n\t\t or \n Enter 0 to exit\n");
		scanf("%d",&i);
		if(i==1)
			main_loges(c1,c2,c3,c4,c5);
		else
			exit(0);
	}
	else
	{
		printf("Wrong Password\n");
	}

}
```

4.3.8 Code for stop() function

```
void stop()
{
        system("cls");
        printf("\n\n\n");
        printf("\t------SORRY YOU CAN NOT GIVE YOUR VOTE FOR YOUR
WRONG ENTRY------\n");
        sleep(1);
        printf("\t------PLEASE TRY AGAIN FEW MOMENT LATER-----\n");
        sleep(1);
        printf("\t\t\t\t*THANK YOU*  \n");
}
```

4.3.9 Code for admin() function

```
void admin(int *c1,int *c2,int *c3,int *c4,int *c5)
{
   int B;
   printf("\n\n\n");
   printf("\t\t\tEnter Password to unlock Admin Panel\n\n");
   scanf("%d",&B);
   if(B==12345)
   {
      show(*c1,*c2,*c3,*c4,*c5);
   }
   else
   {
      printf("Wrong Password\n");
   }
}
```

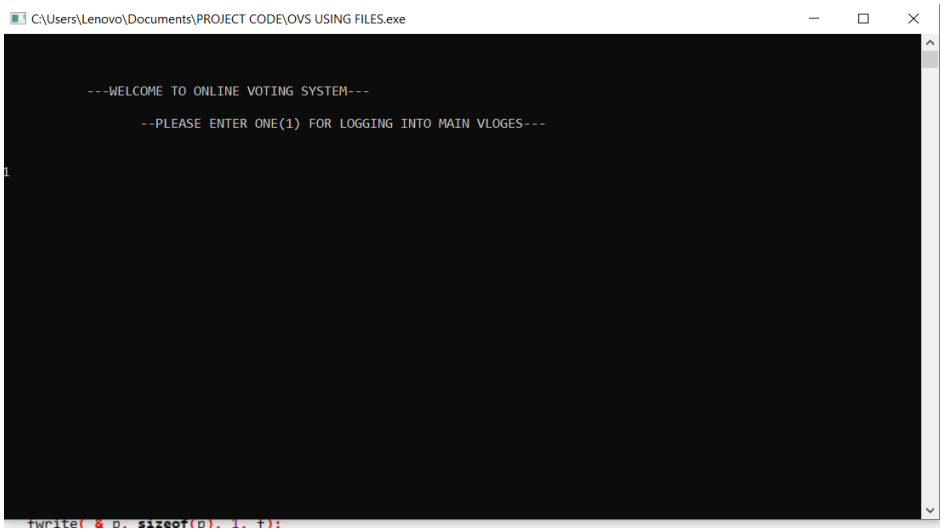
4.3.10 Code for winner() function

```
void winner(int c1,int c2,int c3,int c4,int c5)
{
   system("cls");
   printf("\n\n\n");
   if(c2<c1 && c3<c1 && c4<c1 && c5<c1)
      printf("\t\t\t xyz is the present winner with %d votes\n\n\n",c1);
   if(c1<c2 && c3<c2 && c4<c2 && c5<c2)
      printf("\t\t\t abc is the present winner with %d votes\n\n\n",c2);
   if(c1<c3 && c2<c3 && c4<c3 && c5<c3)
      printf("\t\t\t zzz is the present winner with %d votes\n\n\n",c3);
   if(c1<c4 && c2<c4 && c3<c4 && c5<c4)
      printf("\t\t\t 123 is the present winner with %d votes\n\n\n",c4);
   if(c1<c5 && c2<c5 && c3<c5 && c4<c5)
      printf("\t\t\t we is the present winner with %d votes\n\n\n",c5);
   int T;
   printf("\t\t\t ENTER ONE(1) FOR MAIN LOGES OR\n\n\n ENTER ZERO(0) FOR
EXIT\n");
   scanf("%d",&T);
   if(T == 1)
   {
      main_loges(c1,c2,c3,c4,c5);
   }
   if(T != 1)
   {
      exit(0);
   }
}
```

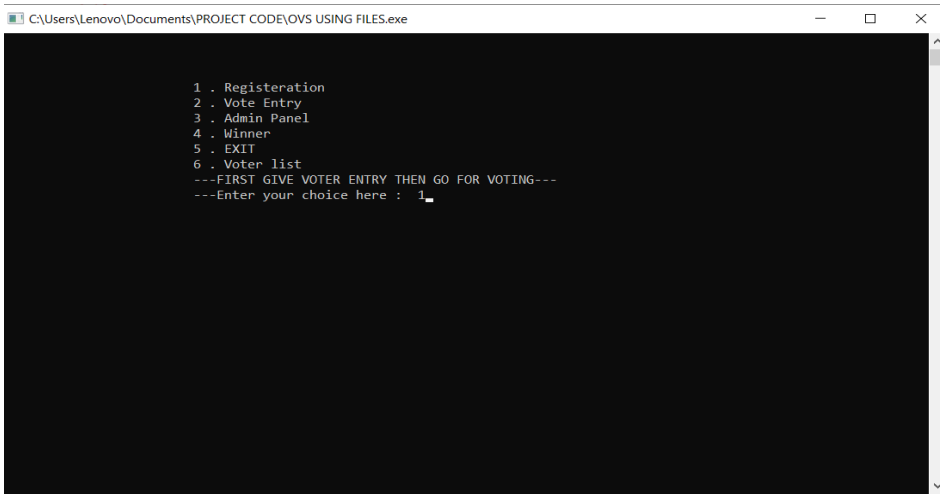
5. RESULT ANALYSIS

5.1 SNAPSHOTS

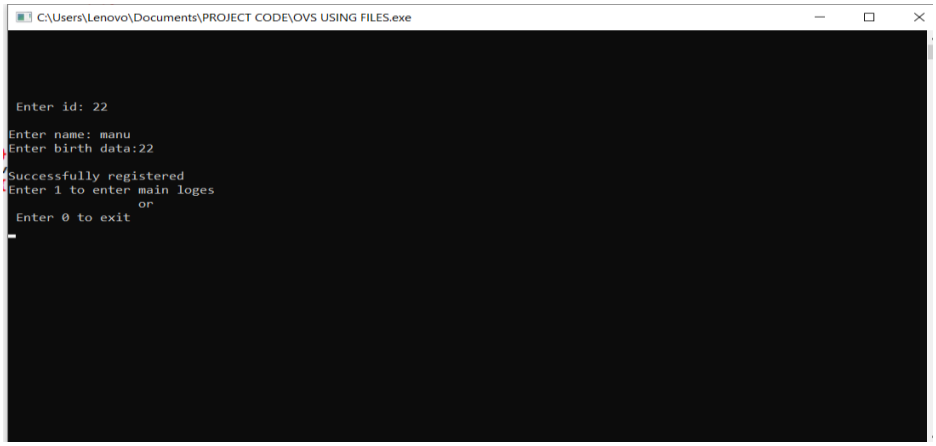
5.1.1 LOGIN PAGE



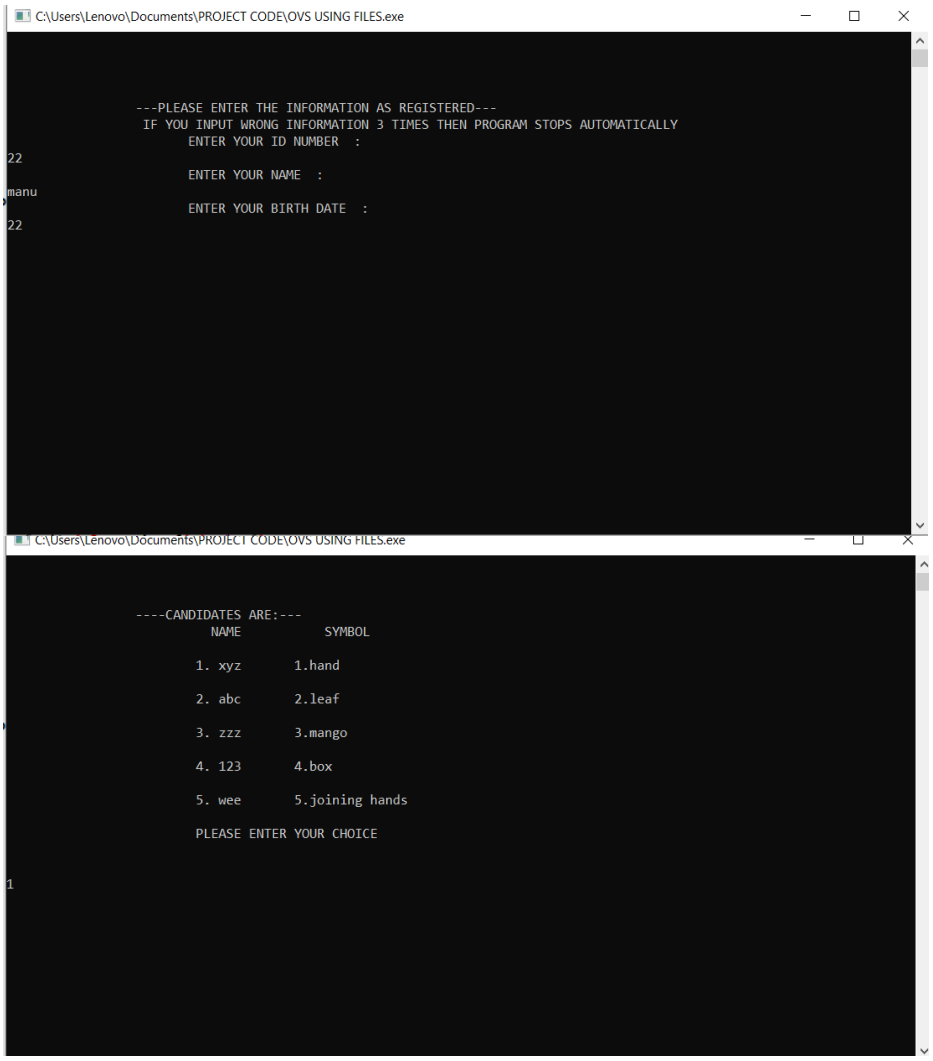
5.1.2 MAIN PAGE



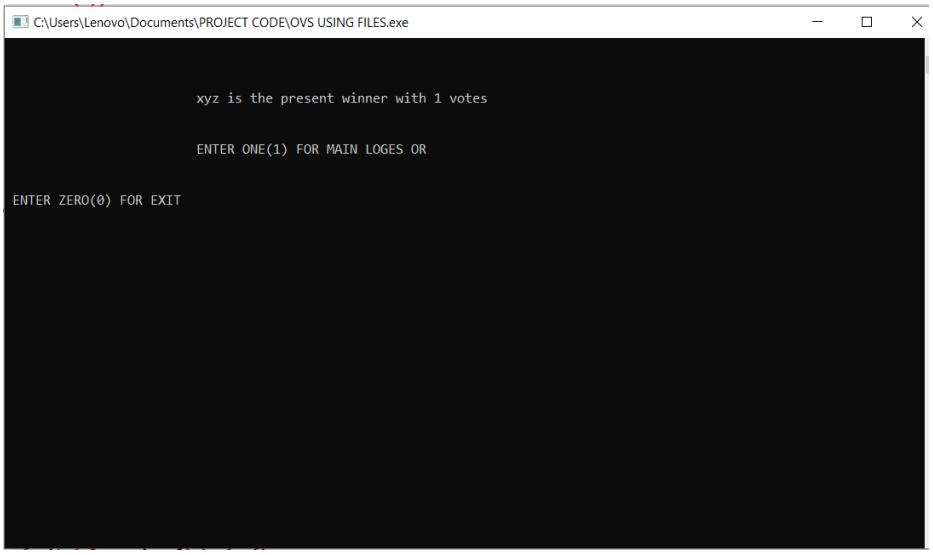
5.1.3 REGISTERATION



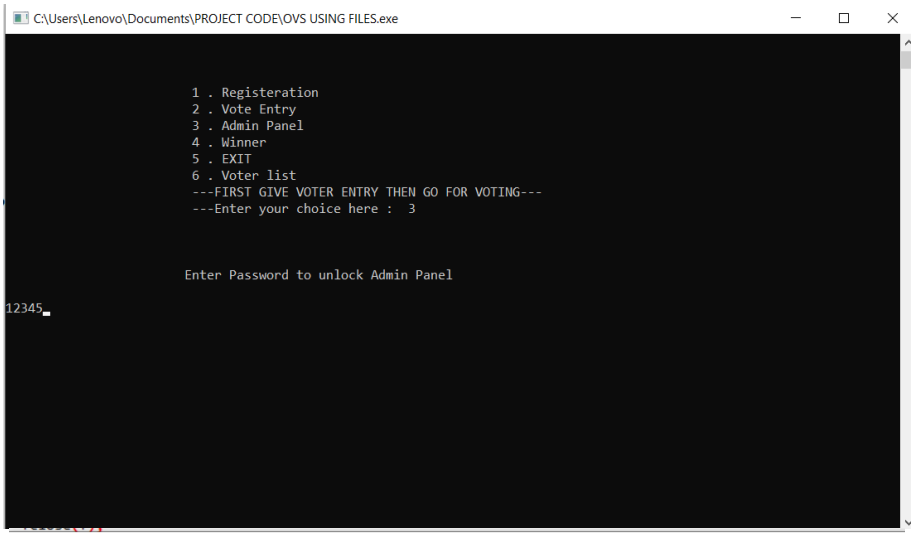
5.1.4 VOTE ENTRY

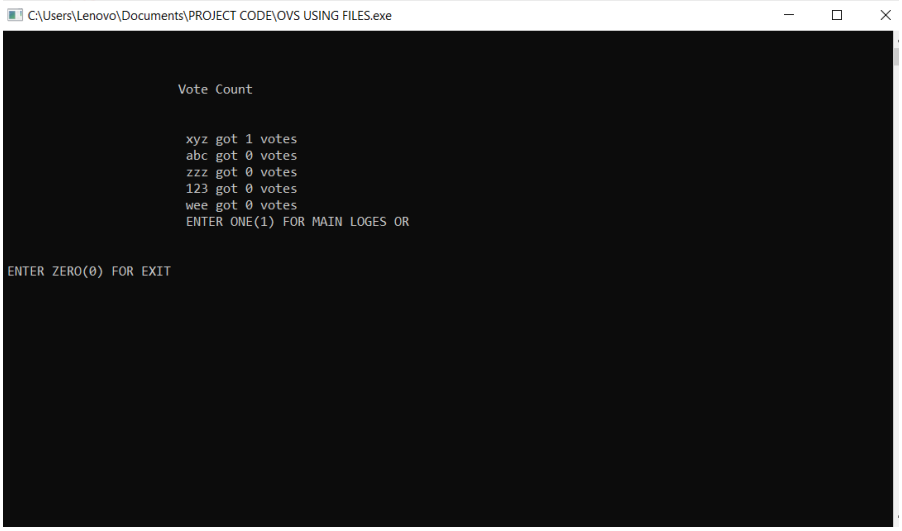


5.1.5 WINNER

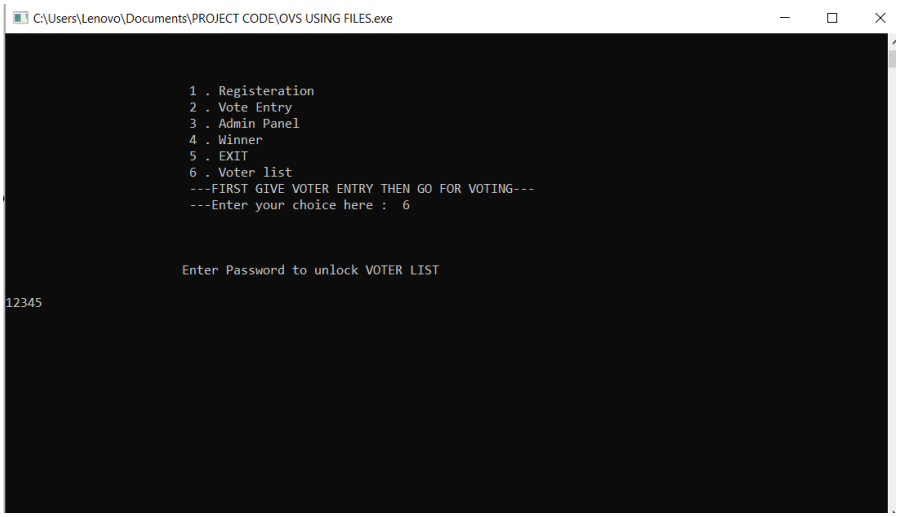


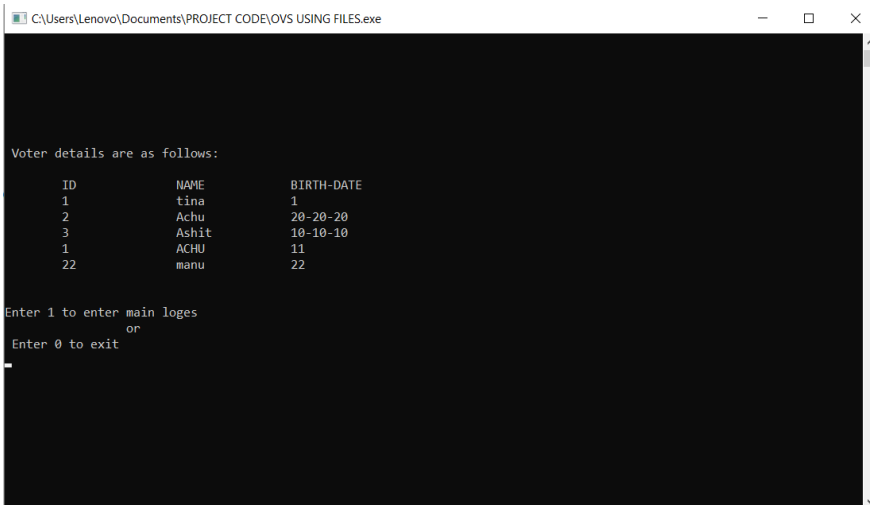
5.1.6 ADMIN PANEL





5.1.7 VOTER LIST





6. CONCLUSION

This Online Voting system will manage the Voter's information by which voter can login and use his voting rights. The system will incorporate all features of Voting system. It provides the tools for maintaining voter's vote to every party and it count total no. of votes of every party. There is a DATABASE which is maintained by the ELECTION COMMISION OF INDIA in which all the names of voter with complete information is stored.

In this user who is above 18 year's register his/her information on the database and when he/she want to vote he/she has to login by his id and password and can vote to any party only single time. Voting detail store in database and the result is displayed by calculation. By online voting system percentage of voting is increases. It decreases the cost and time of voting process. It is very easy to use and It is very less time consuming. It is very easy to debug.

7. REFERENCES

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