STUDENT VOTING SYSTEM

MINOR PROJECT REPORT

Submitted by

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(17MSS028)

Under the Guidance of

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Department of Software Systems

In partial fulfillment of the requirements for the award of the degree of

MASTER OF SCIENCE IN SOFTWARE SYSTEMS

(Five-year Integrated course)

of Bharathiar University

DEPARTMENT OF SOFTWARE SYSTEM
PSG COLLEGE OF ARTS & SCIENCE
An Autonomous College-Affiliated to Bharathiar University
Accredited with 'A' grade by NAAC (3rd Cycle)
College with Potential for Excellence
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Coimbatore -641 014

OCTOBER 2019

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CERTIFICATE

This is to certify that this Project work entitled **"STUDENT VOTING SYSTEM"**
is a bonafide record of work done by **G. MAHALINGAM** (**17MSS028**) in partial fulfillment of
the requirements for the award of Degree of **Master of Science in Software Systems (Five
Year Integrated)** of Bharathiar University.

_____   _____

Faculty Guide   Head of the Department

Submitted for Viva-Voce Examination held on _____

_____   _____

Internal Examiner   External Examiner

DECLARATION

I, **G. MAHALINGAM (17MSS028)**, hereby declare that this Project work entitled **"STUDENT VOTING SYSTEM"**, is submitted to PSG College of Arts & Science (Autonomous), Coimbatore in partial fulfillment for the award of Master of Science in Software Systems, is a record of original work done by me under the supervision and guidance of **Dr.K.V. RUKMANI MCA,ME,Ph.D.,** Assistant Professor in Department of Software System, PSG College of Arts & Science, Coimbatore.

This Project work has not been submitted by me for the award of any other Degree/ Diploma/ Associate ship/ Fellowship or any other similar degree to any other university.

PLACE : Coimbatore

DATE   :

G.MAHALINGAM

(17MSS028)

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SYNOPSIS

This project **"STUDENT VOTING SYSTEM"** is developed using Vb.Net as front end, and SQL Server as backend. This project made for the voting purpose of the institution named Student voting System. The project helps to cast the vote of the Candidate by storing the count of the respective vote. This is a completely automated process that reduces the workload of the Administrator. The implementation cost is also inexpensive and it is reasonable for any institution. The main aim of the project is to reduce the workload and have correct voting count stored on the day happenings in the institution.

The proposed system includes login and for administrator and login for the students. The admin has the only rights to access the administration area and authorized to access the transaction such as adding, editing, and deleting of information inside the system. the student will login as voter. The system is designed with the user-friendly access level and it is responsible for determining the authenticity of the voter by his/her student id and password. Student that officially registered as voter can only vote once. The student should be responsible for counting the votes and has the capability to release required reports regarding the list of voters, candidate and canvassing of result. candidate records after the election will be saved and can be manually deleted by the administrator.

TABLE OF CONTENTS

1.INTRODUCTION

1.1. PROJECT OVERVIEW

The main aim of this project is to create a voting system for an institution. A **Voting System** is an Application used to register and tabulate votes. In the Manual Voting System, the Student can cast their vote through Manual. In this Project the administrator adds all voters list in the database. After adding, the administrator provides login details with voter Id (roll no) to the users. The voters can vote for the candidates by entering their login Id and password. After careful analysis, the system has been identified to have the following modules.

The Modules of this application are:

- USER
- ADMIN

USER MODULE:

- The user module allows users to log in, and cast their vote.

- The user module supports user roles, which can be set up with fine-grained permissions allowing each role to do only what the administrator permits. Each user is assigned one or more roles.

- Registered users need to authenticate by supplying their username and password, to login.

ADMIN MODULE:

- In this project the Admin module allows the administrator to add the candidate Names and user login.

- It also allows to add voter name in the database.

- And also to view the Result stored in the Database, Students accounts management and control.

- To change or Reset Password is also done by Administrator.

2.SYSTEM SPECIFICATION

2.1. Hardware Specification:

- **Processor**   : Intel Dual Core
- **CPU Clock Speed** **:** 2.93 GHz and above
- **RAM**   **:** 1 GB
- **Hard Disk Drive**   **:** 320 GB and above
- **Hardware**   **:** Mouse & Keyboard

2.2 Software Specification :

- **Operating System** **:** Windows 8
- **Front End**   : Vb.Net
- **Back End**   **:** SQL Server

2.3 SOFTWARE DESCRIPTION

FRONT END

VISUAL BASIC .NET

Visual Basic .NET (VB.NET) is an object-oriented computer programming language implemented on the .NET Framework. Although it is an evolution of classic Visual Basic language, it is not backwards compatible with VB6, and any code written in the old version does not compile under VB.NET.

Like all other .NET languages, VB.NET has complete support for object-oriented concepts. Everything in VB.NET is an object, including all of the primitive types (Short, Integer, Long, String, Boolean, etc.) and user-defined types, events, and even assemblies. All objects inherit from the base class Object.

VB.NET is implemented by Microsoft's .NET framework. Therefore, it has full access to all the libraries in the .Net Framework. It is also possible to run VB.NET programs on Mono, the open-source alternative to .NET, under not only Windows, but also even Linux or Mac OSX.

The Visual Studio *integrated development environment* is a creative launching pad that you can use to edit, debug, and build code, and then publish an app.

An integrated development environment (IDE) is a feature-rich program that can be used for many aspects of software development. Over and above the standard editor and debugger that most IDEs provide, Visual Studio includes compilers, code completion tools, graphical designers, and many more features to ease the software development process.

EDITIONS

Visual Studio is available for Windows and Mac. Visual Studio for Mac has many of the same features as Visual Studio 2019, and is optimized for developing cross-platform and mobile apps. This article focuses on the Windows version of Visual Studio 2019.

There are three editions of Visual Studio 2019: Community, Professional, and Enterprise. See Compare Visual Studio IDEs to learn about which features are supported in each edition.

Programming languages supported by Visual Studio

- C
- C++
- C#
- Visual Basic .NET
- F#
- Fossil
- M
- Python
- HTML/XHTML/CSS
- JavaScript

Debug code

When you write code, you need to run it and test it for bugs. Visual Studio's debugging system lets you step through code one statement at a time and inspect variables as you go. You can set *breakpoints* that stop execution of the code at a particular line. You can observe how the value of a variable changes as the code runs, and more.

Create apps for the web

The web drives our modern world, and Visual Studio can help you write apps for it. You can create web apps using ASP.NET, Node.js, Python, JavaScript, and TypeScript. Visual Studio understands web frameworks like Angular, jQuery, Express, and more. ASP.NET Core and .NET Core run on Windows, Mac, and Linux operating systems. ASP.NET Core is a major update to MVC, WebAPI and SignalR, and runs on Windows, Mac, and Linux. ASP.NET Core has been designed from the ground up to provide you with a lean and composable .NET stack for building modern cloud-based web apps and services.

Build cross-platform apps and games

You can use Visual Studio to build apps and games for macOS, Linux, and Windows, as well as for Android, iOS, and other mobile devices.

- Build .NET Core apps that run on Windows, macOS, and Linux.
- Build mobile apps for iOS, Android, and Windows in C# and F# by using Xamarin.
- Use standard web technologies—HTML, CSS, and JavaScript—to build mobile apps for iOS, Android, and Windows by using Apache Cordova.
- Build 2D and 3D games in C# by using Visual Studio Tools for Unity.
- Build native C++ apps for iOS, Android, and Windows devices. Share common code in libraries built for iOS, Android, and Windows, by using C++ for cross-platform development.
- Deploy, test, and debug Android apps with the Android emulator.

Connect to databases

Server Explorer helps you browse and manage SQL Server instances and assets locally, remotely, and on Azure, Salesforce.com, Office 365, and websites. To open **Server Explorer**, on the main menu, choose **View** > **Server Explorer**. For more information on using Server Explorer, see Add new connections.

BACK END

MICROSOFT SQL SERVER MANAGEMENT STUDIO :

Microsoft SQL Server Management Studio is a relational database management system developed by Microsoft. As a database server, it is a software product with the primary function of storing and retrieving data as requested by other software applications, which may run either on the same computer or on another computer across a network (including the Internet).

Microsoft markets at least a dozen different editions of Microsoft SQL Server, aimed at different audiences and for workloads ranging from small single-machine applications to large Internet-facing applications with many concurrent users.

Since the release of SQL Server 1.0 in 1989, SQL Server has evolved to become a true, enterprise information platform. While its core function is that of an RDBMS, SQL Server has become much more than that. SQL Server 2016 includes built-in business intelligence tools, as well as a range of analysis and reporting tools. This is on top of the database management tools such as database creation, backup, replication, security, and more.

DATABASE MANAGEMENT TOOLS:

SQL Server comes with a number of tools to help you with your database administration and programming tasks.

Some typical database administration and programming tasks could include:

- Create & maintain databases
- Create & maintain tables
- Create & maintain other database objects such as stored procedures, views, etc.
- Create & maintain and schedule data backups
- Replication (e.g., create a copy of the database)
- Create & maintain users, roles, etc.
- Optimization task

3.SYSTEM ANALYSIS

3.1 EXISTING SYSTEM

There are a number of systems that are already found useful in maintaining an voting system and calculate the counting. But there isn't a single system that maintains both the process. Sometimes the voting result are maintained manually, this serves as a major disadvantage.

DISADVANTAGES IN THE EXISTING SYSTEM:

1. Manual it takes more time.

2. Expensive process.

3. It takes more effort and physical space to keep track of paper document.

4. Lack of security.

5. Duplication of entry.
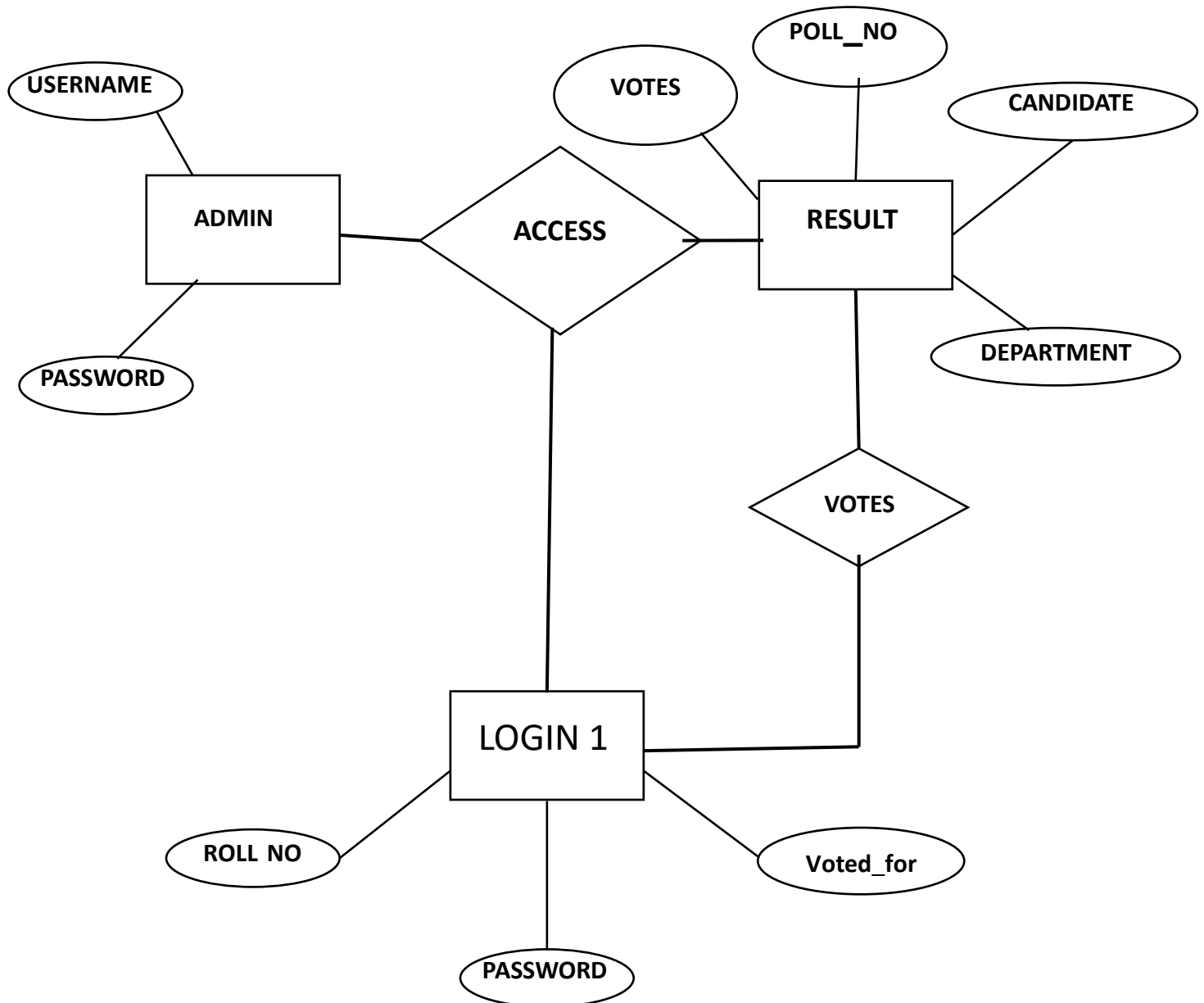
3.2 PROPOSED SYSTEM

The system that is now proposed is a combination of the maintenance of the student account management and calculate the vote count. The Vote calculations for this system that are produced in the application are correctly according to the respective candidate of the institution. This system is completely helpful for maintaining the records, store the data in database and fetch the winner of the election easily.

ADVANTAGES OF THE PROPOSED SYSTEM:

1. In the proposed system we can get the result without manually counting.
2. Computerized counting is simple.
3. Computerized voting can reduce or remove unwanted human error.
4. It is Secure and convenient way to cast their Votes.
5. It saves lot of Time.
6. Working load reduced.
7. The result can be available at time.
8. It provides security to the data.
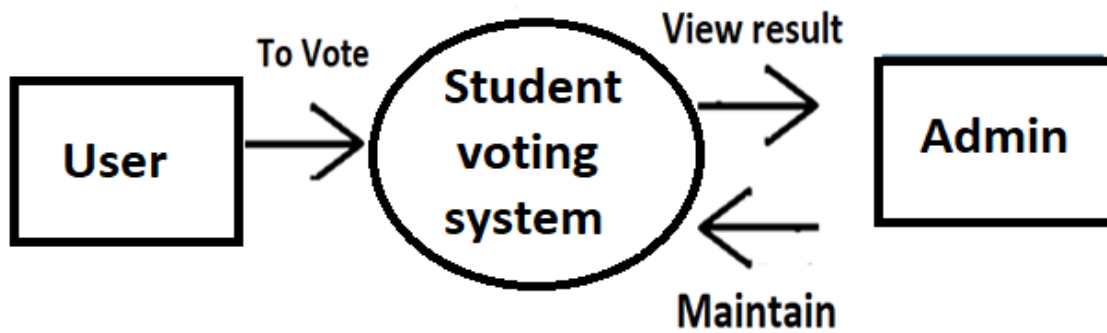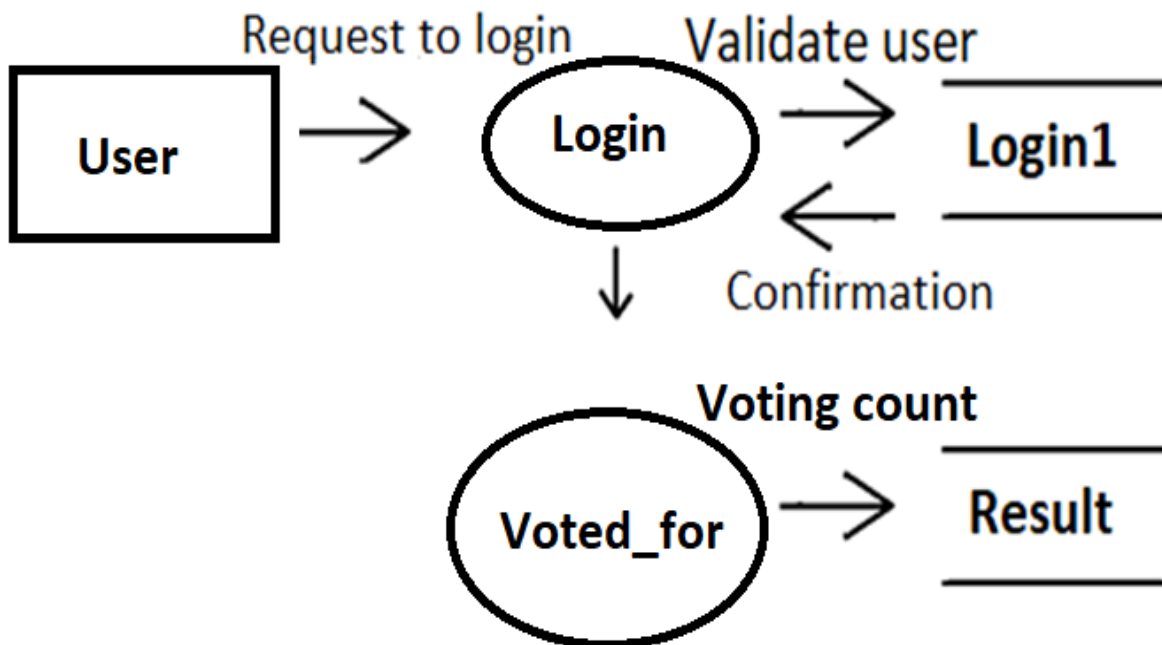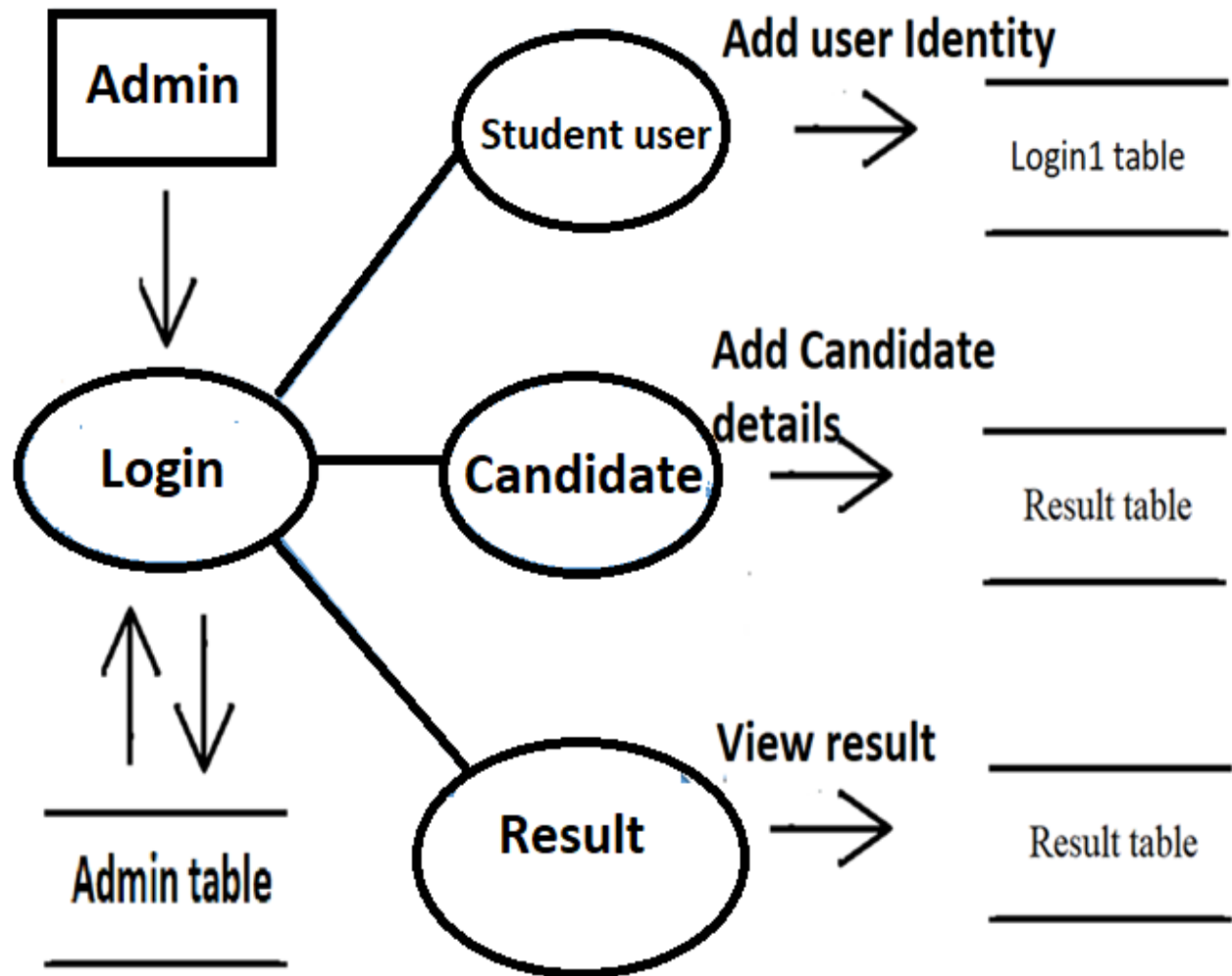
4.SYSTEM DESIGN

4.1 E-R DIAGRAM

USERNAME

VOTES

POLL_NO

CANDIDATE

ADMIN

ACCESS

RESULT

PASSWORD

DEPARTMENT

VOTES

LOGIN 1

ROLL NO

Voted_for

PASSWORD

4.2. Data flow diagram:

Level 0

Level 1

Level 2

4.3. Database Design:

Table Name: **Admin**

FIELD	DATATYPE	SIZE	CONSTRAINS	DESCRIPTION
Username	Varchar	10	NOT NULL	Username of the Student
Password	varchar	50	NOT NULL	Password of the Student

Table Name: **Login 1**

FIELD	DATATYPE	SIZE	CONSTRAINS	DESCRIPTION
Roll no	integer	10	NOT NULL	Roll no of the student
Password	varchar	30	NOT NULL	Password of the student
Voted for	varchar	30	NOT NULL	Person who voted for

Table Name: **Result**

Primary key: Poll no

FIELD	DATATYPE	SIZE	CONSTRAINS	DESCRIPTION
Candidate	varchar	11	NOT NULL	Name of the candidate
votes	varchar	10	NOT NULL	Number of votes of an respective candidate
Poll no	integer	30	Primary key	Poll no of the candidate
Department	varchar	50	NOT NULL	Department of the candidate

4.4 INPUT DESIGN

Input design is the process of connecting the user-originated inputs into a computer to used formats. The goal of the input design is to make data entry Logical and free from errors. Errors in the input database controlled by input design.

This application is being developed in a user-friendly manner. The forms are being designed in such a way that during the processing the cursor is placed in the position where the data must be entered. An option of selecting an appropriate input from the values of validation is made for each of the data entered.

4.5 OUTPUT DESIGN

Computer output is most important and direct source of information to user. Output design aims at communicating the results of processing with user and management. The application is successful only when it generates effective reports.

In order to improve the system relationship with user, the efficient and effective output have a soft copy or a hard copy of the report according to his/her used. Output design aims at communicating the results of processing with user and to display the report

5. SYSTEM TESTING AND IMPLEMENTATION

Testing is the stage of implementation of which aimed at ensuring that the system works accurately and efficiently before live operation commences. Testing is vital to the success of the system. System testing makes a logical assumption that if all the parts of the system are correct the goal will be achieved. The candidates system subject to a variety of tests. Online response, volume, stress, recovery, security and usability tests. A series of testing are performed for the proposed system before the system is ready for user acceptance testing.

The test steps include
- Unit testing
- Validation testing
- Acceptance Testing
- Black Box Testing

Unit testing

Unit testing focuses verification efforts on the smallest of the software design of the module. This is also knows as module testing. The modules of the "banking services" are tested separately. This test was carried out during programming stage.

Validation testing

At the culmination of integration testing, software is completely assembled as a package, interfacing errors have been uncovered and corrected and final series of software test begins. Validation testing can be defined in many ways, but a simple definition is the validation succeeds when the software functions in a manner that can be reasonable expected by the customer.
After the validation test has been conducted, one of the three possible conditions exists.

1. The function of performance characteristics to specification and is accepted.
2. A deviation from specification is uncovered and a deficiency list is created.

3. Proposed system under consideration has been tested by using validation testing and found to
 be working satisfactorily.

Acceptance testing

Acceptance testing, a testing technique performed to determine whether or not the software system has met the requirement specifications. The main purpose of this test is to evaluate the system's compliance with the business requirements and verify if it is has met the required criteria for delivery to end users.

Black Box Testing

Black-box testing is a method of software testing that examines the functionality of an
 Application based on the specifications. It is also known as Specifications based testing. Independent Testing Team usually performs this type of testing during the software testing life cycle. This method of test can be applied to each and every level of software testing such as unit, integration, system and acceptance testing.

Login: Entering invalid credentials and checking for error messages

Login: Entering valid credentials and checking the login.

View: Trying to upload a random non-excel file and checking for error messages

View: Trying to upload an excel file and verify the output

Edit: Editing and deleting the entries.

IMPLEMENTATION

The purpose of System Implementation can be summarized as follows:

It making the new system available to a prepared set of users (the deployment), and positioning on-going support and maintenance of the system within the performing organization (the transition). At a finer level of detail, deploying the system consists of executing all steps necessary to educate the consumers on the use of the new system, placing the newly developed system into production ,confirming that all data required at the start of operations is available and accurate, and validating that business functions that interact with the system are functioning properly. Transitioning the system support responsibilities involves changing from a system development to a system support and maintenance modes of operation, with ownership of the new system from the Project Team to the Performing Organization. System implementation is the important stage of project when the theoretical design is tuned into practical system. The main stages in the implementation are as follows:

- Planning
- Training
- System testing and
- Changeover Planning

Planning is the first task in the system implementation. Planning means deciding on the method and the time scale to be adopted. At the time of implementation of any system people from different departments and system analysis involve. They are confirmed to practical problem of controlling various activities of people outside their own data processing departments. The line manages controlled through an implementation coordinating committee. The committee considers ideas, problems and complaints user department, it must also consider;

- The implication of system environment.
- Self-selection and allocation form implementation tasks.
- Consultation with unions and resources available.
- Standby facilities and channels of communication.

The purpose of Prepare for System Implementation to take all possible steps to ensure that the upcoming system deployment and transition occurs smoothly, efficiently and flawlessly. In the

implementation of any new system, it is necessary to ensure that the Consumer community, is best positioned to utilize the system once deployment efforts have been validated. Therefore, all necessary training activities must be scheduled and coordinated. As this training is often the first exposure to the system for many individuals, it should be conducted as professionally and competently as possible. A positive training experience is a great first step towards Customer acceptance of the system. During System Implementation it is essential that everyone involved be absolutely synchronized with the deployment plan and with each other. Often the performance of deployment efforts impacts many of the Performing Organization's normal business operations.

Examples of these impacts include

Consumers may experience a period of time in which the system that they depend on to perform their jobs are temporarily unavailable to them. They may be asked to maintain detailed manual records or log s of business functions that they perform to be entered into the new system once it is operational. Technical Services may be required to assume significant implementation responsibilities while at the same time having to continue current levels of service on other critical business systems. Because of these and other impacts, the communication of planned deployment activities to al part involved in the project is critical. A smooth deployment requires strong leadership, planning and communications. By this point in the project lifecycle, the team will have spent countless hour devising and refining the steps to be followed. The final process within the System Development Lifecycle is to transition ownership of the system support responsibilities to the Performing Organization. In order for there to be an efficient and effective transition, the Project Manager should make sure that all involved parties are aware of the transition plan, the timing of the various transition activities, and their role in its execution.

Due to the number of project participants in this phase of the SDLC, many of the necessary conditions and activities may be beyond the direct control of the Project Manager. Consequently, all project Team members with roles in the implementation efforts must understand the plan, acknowledge their responsibilities, recognize the extent to which other implementations efforts are dependent upon them, and confirm their commitment.

6. SCOPE FOR FUTURE ENHANCEMENTS

This project **"STUDENT VOTING SYSTEM"** has been designed and developed according to the current requirement of the user. At the same time the system is very flexible and extensible. Hence, future enhancement if needed can be made without much difficulty, so new updates can be developed and it can be integrated with the existing one very easily.

In Future we are looking forward to add many other modules for various other purposes, fingerprint login methods and so on. Thus future enhancements can be made to make the system a bit more user friendly.

7. CONCLUSION

The project entitled **"STUDENT VOTING SYSTEM"** is developed for the easy handling of the entire organization. From the basic details of the student to calculating the vote all the process that is carried on in an organization can be done with the use of this software. The vote count for each candidate is done according to the norms of the institution. Thus this project executes successfully by fulfilling the objectives of the user requirements. Further extensions to this system can be made with minor modification and all the user friendly options helps the work get done without much effort.

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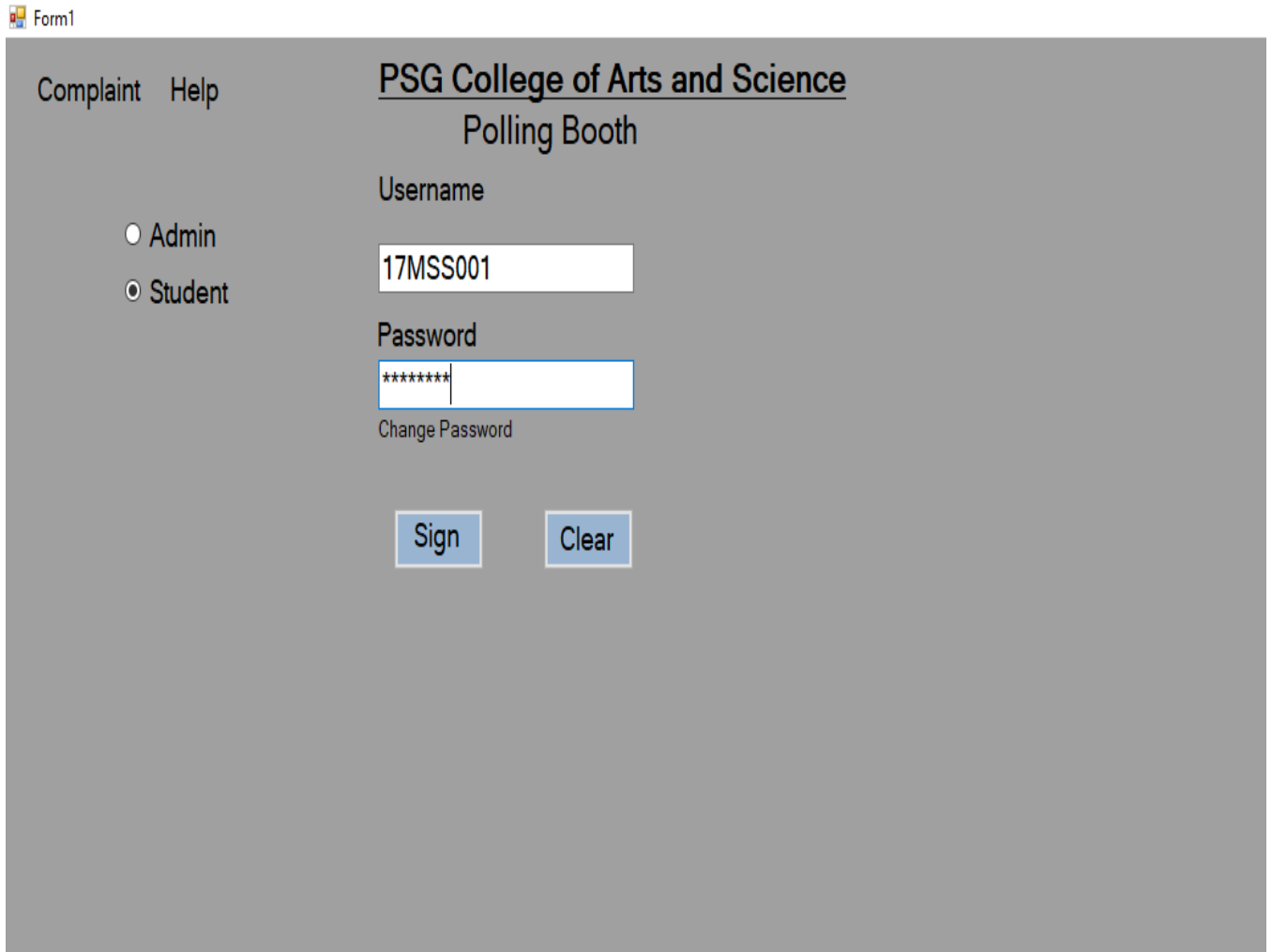2. Paul DuBois "**Edicion Especial MySQL**" 2004

WEBSITE REFERED

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APPENDICES

A. SCREENSHOTS

Login page:

I

Student login

Logout

User 17MSS011

candidate	poll_no	department
Shakthi	2	IT
shiva	4	electronics
shivamaha	5	shivamaha
mahas	11	mss
uvan	13	maths

5

Name shivamaha

Department shivamaha

submit

Poll no 5

×

Voted successfully

OK

Candidate

Admin login

Student

Logout

Name   Jeganathan

Department psychology

Result

candidate	department
shiva	electronics
Shakthi	IT
uvan	maths
mahalingam	MSC SS
mahas	mss

Poll no   15

Add

×

Registered successfully

OK

Back

Student Details

Username   17mss020

Password   17mss020

Add

🗔 Form5

Polling Result

candidate	votes	department
mahas	4	mss
Shakthi	3	IT
shiva	1	electronics
shivamaha	1	shivamaha
uvan	0	maths
mahalingam	0	MSC SS
Jeganathan	0	psychology

B.SAMPLE CODING

```vbnet
If RadioButton1.Checked = True Then


            Dim command As New SqlCommand("select * from admin1 where
username = '" + TextBox1.Text + "' and password = '" + TextBox2.Text +
"'", con1)
            command.Parameters.Add("@username",
SqlDbType.VarChar).Value = TextBox1.Text
            command.Parameters.Add("@password",
SqlDbType.VarChar).Value = TextBox2.Text
            Dim adapter As New SqlDataAdapter(command)
            Dim table As New DataTable()
            adapter.Fill(table)
            If table.Rows.Count() <= 0 Then
                MessageBox.Show("Username Or Password Are Invalid")
                TextBox1.Text = ""
                TextBox2.Text = ""
            Else


                MessageBox.Show("Login successful")
                TextBox1.Clear()
                TextBox2.Clear()
                Form3.Show()
                Me.Hide()

            End If

        ElseIf RadioButton2.Checked = True Then

            If TextBox1.Text <> "psg" Then

                Dim command As New SqlCommand("select * from login1
where rollno = '" + TextBox1.Text + "' and password = '" +
TextBox2.Text + "'", con1)
                command.Parameters.Add("@username",
SqlDbType.VarChar).Value = TextBox1.Text
                command.Parameters.Add("@password",
SqlDbType.VarChar).Value = TextBox2.Text
```

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```vb
                Dim adapter As New SqlDataAdapter(command)
                Dim table As New DataTable()
                adapter.Fill(table)
                If table.Rows.Count() <= 0 Then
                    MessageBox.Show("Username and Password Are
Invalid")

                    TextBox1.Text = ""
                    TextBox2.Text = ""
                Else

                    Dim cmd1x As New SqlCommand("select voted_for from
login1 where rollno='" + TextBox1.Text + "'", con1)
                    Dim dr As SqlDataReader
                        dr = cmd1x.ExecuteReader
                        dr.Read()
                    n6 = dr.GetString(0)
                    dr.Close()

                    If n6 = "0" Then

                        Form2.Label11.Text = TextBox1.Text
                        Form2.Show()
                        TextBox1.Clear()
                        TextBox2.Clear()
                        Me.Hide()

                    Else
                        MessageBox.Show("Your vote has been casted")
                    End If
                    End If

            Else
                MessageBox.Show("Invalid rollno")
            End If
        Else
            MessageBox.Show("Select a login option")
        End If


    End Sub
```