VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELGAUM



**DATABASE MANAGEMENT SYSTEM**

**LABORATORY MINI-PROJECT REPORT**

**ON**

**ATM/CDM SYSTEM**

SUBMITTED BY

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Submitted in partial fulfillment of the requirement for the award of the

Degree of Bachelor of Engineering

In

Computer Science &Engineering

UNDER THE GUIDANCE OF

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# CERTIFICATE

This is to certify that the project entitled “**ATM/CDM SYSTEM**” has been successfully completed by

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In partial fulfillment for the data base management system laboratory with mini-project report[15CSL58] –V semester, BE Computer Science during2016-2017.

Signature of guide Signature of HOD

Prof. Rajendra M Dr. P. Aishwarya

**External Viva:**

(Name of Internal/External Examiner with signature & Date)

Examiner 1\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Examiner 2\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# ACKNOWLEDGEMENT

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, who believe that the individual can excel and put in their every bit in every endeavor he/she embarks on, at every stage in life. And the success is derived when opportunity meets preparation, also supported by a well-coordinated approach and attitude.

The joy and satisfaction that accompanies the successful completion of any task would be incomplete without mentioning the people who made it possible and also whose efforts gave this project its final shape.

We would like to express our gratitude to our respected principal **Dr. K V Narayanaswamy** for providing a congenial environment and surrounding to work in. We would like to express our sincere gratitude to **Dr. P. Aishwarya, Head of the Department, Computer Science& Engineering**, for his continuous support and encouragement.

We are indeed indebted to **Prof. Rajendra M,** project guide and lab in-charge, for is support, advice and inputs in the course of this project. We would also like to thank various faculty members of the Computer Science & Engineering Department for their valuable suggestions and inputs.

Last, but not the least we would like to thank our parents, who have acted as a beacon of light throughout life.

Our sincere gratitude goes out to all our comrades and well-wishers who have supported us through all our ventures.

**DEEPAK V GAUTHAM N**

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# ABSTRACT

**ATM/CDM SYSTEM**

The **ATM/CDM System** is the project which is used by customers to access their bank accounts in order to make cash withdrawals and cash deposits. Whenever the user need to make cash withdraws, they can enter their PIN number ***(Personal Identification Number)*** and it will display the amount to be withdrawn in the form of 100’s. Once their withdrawal is successful, the amount will be debited in their account and a Transaction ID will be displayed.

The ATM/CDM System is developed in front-end as PHP and back-end database as My SQL. PHP ***(Hypertext Preprocessor)*** is a widely used open source general-purpose scripting language that is especially suited for web development and can be embedded into HTML. Hence we used this software in our project.

The ATM/CDM will service one customer at a time. A customer will be required to enter Bank Account number and PIN – both of which will be sent to the database for validation as part of each transaction. The customer will then be able to perform one or more transactions. Also customer must be able to make a balance inquiry and generate a Mini Statement of any account linked to the Account number.

The ATM will communicate each transaction to the database and obtain verification that it was allowed by the database. In the case of a cash withdrawal, an alert with the Transaction ID will be displayed which the user can take note of. The same goes for Deposit transaction also. Any debits or credits made will be sent to the Database and changes will be reflected in the database as well.

If a transaction fails for any reason other than an invalid PIN, the ATM will display an explanation of the problem, and will then alert the customer of the error and the customer will be redirected to the Login page.

The ATM will provide the customer with an alert for each successful transaction, showing the transaction ID. When balance enquiry is selected the balance of the account of the customer is displayed. When Mini statement is selected a table showing the date, time, type of transaction, amount and available balance of the affected account.

# 1. INTRODUCTION

# 1.1 INTRODUCTION TO DBMS

A database is simply an organized collection of related data, typically stored on disk, and accessible by possibly many concurrent users. Databases are generally separated into application areas. For example, one database may contain Human Resource (employee and payroll) data; another may contain sales data; another may contain accounting data; and so on. Databases are managed by a DBMS. Many Database Systems are being used which are in turn managed by many other Database Management Systems. A Database Management System (DBMS) is a set of programs that manages any number of databases. Basically DBMS is a software tool to organize (create, retrieve, update and manage) data in a database. The main aim of a DBMS is to supply a way to store up and retrieve database information that is both convenient and efficient. By data, we mean known facts that can be recorded and that have embedded meaning. Database systems are meant to handle large collection of information. Management of data involves both defining structures for storage of information and providing mechanisms that can do the manipulation of those stored information. Moreover, the database system must ensure the safety of the information stored, despite system crashes or attempts at unauthorized access.

**1.1.1 SQL PROGRAMMING**

SQL (Structured Query Language) is a standard database programming language used to accessing and manipulating data in a database. SQL was developed In 1970 by Donald D. Chamberlin and Raymond F. Boyce at IBM. For handling database and database related programming, programmers need to have some medium or you can say interface to particularize a set of commands or codes to deal with database or to access database’s data. It is pronounced as “sequel”. SQL is the standard language for Relation Database System. SQL is used by many databases like MySQL, Oracle, SQL Server, PostgreSQL etc.

SQL statements always start with the keywords. SQL statement ends with semicolon. SQL is not case sensitive, means update is the same as UPDATE.

Structured Query Language is perhaps the most common way to extract data from a relational database system. The Basic Syntax (simplified) Format is:

SELECT field name(s)

FROM databases table name(s)

WHERE conditional clause

This is the way in which SQL programming can be used to access many number of Databases.

**1.1.2 SQL COMMANDS**

|  |  |
| --- | --- |
| **SQL Command** | **Description** |
| [CREATE DATABASE](https://www.w3schools.in/sql/create-database/) | Creates a new database. |
| [CREATE TABLE](https://www.w3schools.in/sql/create-table/) | Creates a new table. |
| ALTER DATABASE | Modifies a database. |
| ALTER TABLE | Modifies a table. |
| DROP TABLE | Deletes a table. |
| CREATE INDEX | Creates an index. |
| DROP INDEX | Deletes an index. |
| SELECT | Fetch data from a database table. |
| UPDATE | Modifies data in a database table. |
| DELETE | Deletes data from a database table. |
| INSERT INTO | Inserts new data into a database table. |
|  |  |

# 1.2 BRIEF OUTLINE OF THE PROJECT

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### 8.1.1 Bibliography

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**8.2 APPENDIX-II**

### 8.2.1 Development Tools

### 8.2.2 Software Environment

### 8.2.3 Hardware Environment

|  |  |
| --- | --- |
| **System** | |
| Manufacturer | HP |
| Model | HP Pavilion g6 Notebook PC |
| Total amount of system memory | 4.00 GB RAM |
| System type | 64-bit Operating System |
| Processor | Intel® Core i5-3230 CPU 4 x 2.60 GHz |
| **Storage** | |
| Total size of hard disk | 500 GB |
| Disk partition (C:) | 40.8 GB Free (371 GB Total) |
| Disk partition (D:) | 2.10 GB Free (16.7 GB Total) |
| Disk partition (H:) | 5 GB Free (34 GB Total) |
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