MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Soft Skills Project Report

on

Employee Management System

Submitted By:

APOORVA SHARMA

0901CA211013

Mentor:

Dr. Parul Saxena
(Assistant Professor)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE
GWALIOR - 474005 (MP) est. 1957

July – December 2021

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

CERTIFICATE

This is certified that **APOORVA SHARMA** (0901CA211013) has submitted the project report titled **DBMS LAB (680117)** on problem of **Employee Management System** under the mentorship of **Dr. Parul Saxena** (Assistant Professor) as the requirement of skill based mini project.

Dr. Parul Saxena
(Assistant Professor)
Computer Science and Engineering

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

DECLARATION

I hereby declare that the work being presented in this project report, for the requirement of skill based mini project in Master of Computer Application in Computer Science and Engineering at Madhav Institue of Technology andScience, Gwalior is an authenticated and original record of my work under the mentorship of Dr. Parul Saxena (Assistant Professor).

I declare that that I have not submitted the matter embodied in this report anywhere else.

APOORVA SHARMA
0901CA211013
2021-2023 Year,
Master of Computer Application,
Computer Science and Engineering

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

ACKNOWLEDGEMENT

The full semester project has proved to be pivotal to my career. I am thankful to my institute, **Madhav Institute of Technology and Science** to allow me to continue my disciplinary project. I extend my gratitude to the Director of the institute, **Dr. R. K. Pandit** and Dean Academics, **Dr. Manjaree Pandit** for this.

I would sincerely like to thank my department, **Department of Computer Science and Engineering, for allowing** me to explore this project. I humbly thank **Dr. Manish Dixit**, Professor and Head, Department of Computer Science and Engineering, for his continued support during the course of thisengagement, which eased the process and formalities involved.

I am sincerely thankful to my faculty coordinator. I am grateful to the guidance of **Dr. Parul Saxena**, Assistant Professor, Computer Science and Engineering, for his continued support and guidance throughout the project. I am also very thankful to the faculty and staff of the department.

APOORVA SHARMA
0901CA211013
2021-2023 Year,
Master of Computer Application,
Computer Science and Engineering

ABSTRACT

This project work has been done for the purpose of understanding of databasemanagement system, because in today time any project, institute, organization is incomplete without database connection.

As there is English language to communicate with the people, there is machinelanguage to communicate with machines same there is SQL (Structured QueryLanguage) is used to communicate with database. In this we have kept the dataof the client in the form of a table with the help of attributes and with the help of SQL, we insert, update, delete the data.

CONTENT

1. INTRODUCTION

An **Employee Management System** is a DBMS project which shows some query which are used to solve the query related to data with the help of following query. This project help in getting relevant data with data redundancy with the help of SQL command.

The aim of this project is to show some query to solve the query related to database. This project is developed for the purpose of showing some query related question and their solution with the respective questions.

The main aim of this project to solve the problem occurs in big data base regarding the extraction or retrieving the data related to problem. This project show some of the basic query related to employee management which is required by a company. The main benefit of this project is easy the workload of the management department regarding retrieving the data from the big data base.

2. OBJECTIVE

The main objective of the project is to design and develop a user friendly system. In this, we will learn to keep table data and how to apply function onthe data and how can we extract the data from the help of SQL command.

Easy to use and an efficient computerized system. To develop an accurate and flexible system. It will eliminate data redundancy. It reduce paperwork to provide immediate storage and retrieval of data and information, less chances of information leakage.

Objective of Employee Management System project is to reduce the redundancy which can occure in big database while fetching the data. By this project, I try to give some basic query related to DBMS and their solution.

3. TABLE

EmployeeInfo Table:

EmpId	EmpFname	EmpLname	Departmen	Project	Address	DOB	Gender
1	Ankit	Sharma	HR	P1	HYD	1/12/1980	M
2	Ananya	Mishra	Admin	P2	DEL	02/05/1970	F
3	Rohan	Diwan	Account	P3	MUM	01/01/1984	M
4	Sonia	Kulkarni	HR	P1	HYD	02/05/1992	F
5	Sanjay	Mishra	Admin	P2	DEL	03/07/1994	M

EmployeePosition Table:

EmpID	EmpPosition	DateofJoining	Salary
1	Manager	01/05/2022	500000
2	Executive	02/05/2022	75000
3	Manager	01/05/2022	90000
2	Lead	02/05/2022	85000
1	Executive	01/05/2022	300000

Below are the few examples which can be performed in above table with the help of DBMS with Sql command

Q.1 Write a query to fetch the number of Employees working in the department 'HR'.

Ans SELECT COUNT(*) FROM EmployeeInfo WHERE Department = 'HR' ;

Q. 2 Write a query to create a new table which consists of data and structure copied from the other table

Ans SELECT * INTO NewTable FROM EmployeeInfo WHERE 1 = 0;

Q.3 Write a query to find all the employees whose salary is between 50000 to 100000.

Ans SELECT * FROM EmployeePosition WHERE Salary BETWEEN '50000' TO '100000';

Q.4 Write a query to retrieve the EmpFname and EmpLname in a single column as "Full name". The first name and the last name must be separated with space.

Ans SELECT CONCAT(EmpFname, ' ' , EmpLname) AS 'FullName' FROM EmployeeInfo;

Q.5 Write a query to fetch the details of employee with the address as 'DEL'.

Ans SELECT * FROM EmployeeInfo WHERE Address LIKE 'DEL';

Q.6 Write a query to fetch the department-wise count of employees sorted by department's count in ascending order.

Ans SELECT Department, count(EmpID) AS EmpDeptCount

FROM EmployeeInfo GROUP BY Department

ORDER BY EmpDeptCount ASC;

Q.7 Write a query to fetch all employess who also hold the managerial position.

Ans SELECT E.EmpFname, E.EmpLname, E.EmpPosition

FROM EmployeeInfo E INNER JOIN EmployeePosition P ON

E.EmpID = P.EmpID AND P.EmpPosition IN ('Manager');

Q.8 Write a query to retrieve duplicate records from a table.

Ans SELECT EmpID, EmpFname, Department COUNT(*)

FROM EmployeeInfo GROUP BY EmpID, EmpFname, Department

HAVING COUNT(*) > 1;

Q.9 Write a query to retrieve EmpPosition with total salaries paid for each of them.

Ans. SELECT EmpPosition, SUM(Salary) FROM EmployeePosition GROUP BY EmpPosition;

4. CONCLUSION

By the help of this skill based project, I learned how to construct and execute query to fetch data from multiple database using "mysql" Editor. Mysql helps fast with code completion andcustomizable code snippets by getting suggestion for keywords and stripping the repetition from coding.

We learned following things related to dbms are:

1. How to organize data in to the table.
2. How to make changes in the database and fetch that details.
3. How to use structure query language.
4. About a primary key, that is uniquely identifies a record.
5. About a foreign key, that is a primary key of another table.
6. To join data from two related tables, you need to match the foreign key to the primary key using WHERE.