VIVEKANAND EDUCATION SOCIETY'S

Polytechnic

Since 1962

MICRO PROJECT

Academic year

2024-2025

Survey on database system software from 2012 to 2024

Program: Computer Engineering   **Program code: CO3K**

Course: Database Management System   **Course code: 313302**

Submitted By: **Submitted to:**

Name of Team Members with Roll Nos.   Mrs. Vidya Lunge
1. **Yash Vinod Khanvilkar - 54**
2. **Amaan Abrar Kazi - 55**
3. **Shubhra Baliram Ausarmal – 56**

MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION

Certificate

This is to certify that Mr. /Ms. ………………………………………………………………………

…………………….Roll No. ……...…………….. **of Second** Semester of Diploma in **Computer Engineering** of Institute**, VES POLYTECHNIC (Code: 0004)** has completed the **Micro Project** satisfactorily in Subject –**DATABASE MANAGEMENT SYSTEM (313302)** for the academic year 2024- 2025. as prescribed in the curriculum.

Place: …………………….   Enrollment No: ………………………….

Date: ………………………   Exam Seat No: ………………………….

Subject Teacher   **Head of the Department**   **Principal**

**Seal of
Institution**

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Academic year: 2024-2025   **Name of the faculty: Mrs. Vidya Lunge**

Program code: CO3K   **Course & course code: DBMS (313302)**

Name of the candidate: _____

Roll No._____ **Enrollment No.**_____

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Micro-Project Proposal

<mark>Title of Micro-Project</mark>

1.0   Aim/Benefits of the Micro-Project

This Micro-Project aimed to enhance understanding of database system software from 2012 to 2024. It benefits students by improving their database design, SQL usage, and data analysis skills. The project helps understand the evolution of databases, making students better equipped to manage and implement them. It also reinforces key course concepts through practical application**.**

2.0   Course Outcomes Addressed (<mark>Tick appropriate Cos</mark>)

CO1 - Explain concept of database management system.   ☐
CO2 - Design the database for given problem.   ☐
CO3 - Manage database using SQL.   ☐
CO4 - Implement PL/SQL codes for given application.   ☐
CO5 - Apply security and backup methods on database.   ☐

3.0   Resources Used

Sr. No.	Equipment Name with Broad Specification	Remark if any
1	Computer System: Any desktop or laptop, computer with basic configuration	
2	Software Package : Microsoft Office	

4.0   Action Plan

SR. No.	Details of activity	Planned Start date	Planned Finish date	Name of Responsible Team Members
1	Finalization of project Title and Scope			**All**
2	Project Definition			**All**
3	Information Collection and Analysis of Data			**All**
4	Design Structure			**All**
5	Coding			**All**
6	Output			**All**
7	Report writing			**All**
8	Demonstration of project & final submission			**All**

5.0 Actual Procedure Followed.

The microproject commenced with the selection and finalization of the topic, which focused on the survey of database system software advancements from 2012 to 2024. The team initially conducted a detailed literature review by gathering information from academic resources, including textbooks, research papers, online articles, and software documentation. The primary focus areas were advancements in Relational Database Management Systems (RDBMS), NoSQL databases, and the emergence of cloud databases during this period. Special attention was given to features such as scalability, performance enhancements, security improvements, and support for new data types.

After compiling the necessary information, the team formulated a structured plan for the project. A database schema was designed to simulate the core concepts, and SQL queries were written to demonstrate various database operations, such as data retrieval, insertion, and updates. The team used database management tools to implement these queries, ensuring accuracy and efficiency in their execution.

7.0 Application of this Micro-Project

1. Understanding Database Evolution
2. Practical SQL Implementation
3. Exploring NoSQL Databases
4. Cloud Database Concepts
5. Security and Backup Techniques
6. Real-World Database Applications

8.0 References

1. Textbook on Database Management System.
2. Research papers on advancements in database technology from 2012-2024
3. Online articles related to SQL, NoSQL, and cloud databases
4. Documentation of Oracle, MySQL, and Microsoft SQL Server
5. Lecture notes from DBMS course
6. Journals and publications on data security and scalability techniques

Suggested Rubric for Assessment of Micro-Project

S. No.	Characteristic to be assessed	Poor (Marks 1 - 3)	Average (Marks 4 - 7)	Good (Marks 8 - 11)	Excellent (Marks 12- 15)
1	Relevance to the course	Relate to very few LOs	Related to some LOs	Take care of at-least one CO	Take care of more than one CO
2	Literature review /information collection	Not more than two sources very old reference	At-least 5 relevant sources, at least 2 latest	At –least 7 relevant sources, most latest	About 10 relevant sources, most latest
3	Completion of the Target as per project proposal	Completed less than 50%	Completed 50 to 60%	Completed 60 to 80%	Completed more than 80 %
4	Analysis of Data and representation	Data neither organized nor presented well	Sufficient and appropriate enough data generated but not organized and not presented well.	Sufficient and appropriate enough data generated which is organized and but not used.	Enough data collected and sufficient and presenting data.
5	Quality of Prototype/Model	Incomplete Programming code	Just assembled and some codeis not functioning well.	Well assembled and functioning parts. But no creativity in design and use of graphics function	Well assembled with proper functioning parts.. Creativity in design and use of graphics function
6	Report Preparation	Very short, Details about methods, and conclusions omitted, some details are wrong	Nearly sufficient and correct details about methods, and conclusion. but clarity is not there in presentation.	Detailed, correct and clear description of methods and Conclusions. Sufficient Graphic Description.	Very detailed, correct, clear description of methods, and conclusions.
7	**Presentation of the micro project**	Major information is not included, information is not well organized.	Includes major information but not well organized and not presented well	Includes major information and well organized but not presented well	Well organized, includes major information ,well presented
8	**Defense**	Could not reply to considerable number of question.	Replied to considerable number of questions but not very properly	Replied properly to considerable number of question.	Replied most of the questions properly

Micro Project Evaluation Sheet

Name of Students: <u>Yash Vinod Khanvilkar,</u>   Enrollment Nos: 23150920710

           <u>Amaan Abrar Kazi</u>   23150920711

           <u>Shubhra Baliram Ausarmal</u>   23150920712

Name of Program: Computer Engineering   Semester: Third

Course Title: Database Management System   Course Code:313303

Title of the Micro-Project : survey on database system software from 2012 from 2024

Cos addressed by Micro Project: (Tick appropriate COs)

        CO1 -Explain concept of database management system.   ☐

        CO2 - Design the database for given problem.   ☐

        CO3 - Manage database using SQL.   ☐

        CO4 - Implement PL/SQL codes for given application.   ☐

        CO5 - Apply security and backup methods on database.   ☐

Sr. No	Characteristic to be assessed	Poor (Marks1-3)	Average (Marks 4-7)	Good (Marks 8-11)	Excellent (Marks12-15)	Sub Total
(A) Process and Product Assessment (Convert Above Total marks out of 6 Marks)						
1	Relevance to the course					
2	Literature review/ Information Collection					
3	Completion of the Target as per project proposal					
4	Analysis of Data and representation					
5	Quality of Prototype/Model					
6	Report Preparation					
(B) Individual Presentation / Viva						
7	Presentation(5m)					
8	Defense/Viva(5m)					

Roll No.	Process and Product Assessment (15 Marks)	Individual Presentation (5 Marks)	Viva (5 Marks)	Total Marks 25

Name and designation of the Teacher:

Mrs. Vidya Lunge
Dated Signature: