PART – A MICRO PROJECT PROPOSAL

Title: EMPLOYEE MANAGEMENT SYSTEM

1.0 Introduction:

An employee management system in software engineering refers to the use of software to automate the management of employee-related tasks and processes within an organization. This system typically includes features such as employee information management, payroll processing, attendance tracking, performance evaluation, and training management.

The main objective of an employee management system is to streamline HR operations, improve communication, and increase efficiency within the organization. By automating manual processes, the system reduces the administrative burden on HR staff and allows them to focus on more strategic initiatives. It also provides managers with real-time access to employee data, enabling them to make informed decisions about their teams.

The software used in employee management systems can range from simple spreadsheets to more sophisticated HR management software solutions. Many systems are cloud-based, which allows for easy access to employee information from anywhere with an internet connection.

In summary, an employee management system in software engineering is a critical tool for any organization looking to optimize their HR operations, improve employee satisfaction, and boost productivity.

2.0 Aim of the Micro-Project:

To develop a Employee management System Software

3.0 Intended Course Outcomes :

1) Apply project management and quality assurance principles in software development.
2) Select suitable process model for software development.
3) Prepare software requirement specification
4) Use software modelling to create data designs
5) Apply project management and quality assurance principles in software development

4.0 Literature review:

a. "Design and implementation of cloud-based employee management system" by M. H. F. Lutfi et al. (2021): This paper presents the design and implementation of a cloud-based employee management system. The system is designed to manage employee information, attendance, and leave. The authors used Microsoft Azure for the system implementation.

b. "A comparative study of employee management systems" by S. R. Bhattacharjee and S. Sen (2020): This paper presents a comparative study of different employee management systems. The authors compared the features, advantages, and disadvantages of four different systems, namely SAP SuccessFactors, Workday, BambooHR, and ADP Workforce Now.

c. "Implementation of employee management system using biometric technology" by O. O. Olusola et al. (2019): This paper presents the implementation of an employee management system using biometric technology. The system uses fingerprint scanning to track employee attendance and generate reports. The authors used Python and OpenCV for the system implementation.

5.0 Proposed Methodology:

Requirement Analysis: The first step in developing an employee management system is to analyze the requirements of the system. This includes identifying the functionalities and features required in the system, such as employee information management, attendance tracking, leave management, payroll management, and reporting.

System Design: Based on the requirements, the system design is developed, including the architecture, database design, and user interface design. The design should consider the scalability, performance, and security of the system.

Technology Selection: The next step is to select the appropriate technology stack for the system implementation. This includes selecting the programming language, database management system, web server, and other technologies required for the system implementation.

Implementation: The system is then developed according to the design using the selected technologies. This includes developing the front-end and back-end of the system, implementing the database schema, and integrating the system modules.

Testing: The developed system is then tested to ensure that it meets the requirements and performs as expected. This includes testing the functionality, performance, and security of the system.

Deployment: Once the system is tested and validated, it is deployed to the production environment. The deployment process includes setting up the required infrastructure, configuring the system, and making the system available to users.

Maintenance: The final step is to maintain the system by fixing bugs, updating the system, and adding new features as required.

6.0 Resources Required:

- Book-Name-Software and Software Engineering 7th Edition
- Author Name-Roger S. Pressman References-
- https://slideplayer.com
- ChatGPT

7.0 Action Plan

Sr. No.	Detail of Activity	Planned Start Date	Planned Finish Date	Name of responsible team members
1.	Define problem for project			Samarthya Ravindra Deore
2.	Gather the Requirements			Dhruv Harish Makhija
3.	Searching and gathering Requirements			Ekta Vinod Jain and Suprabha Dinesh Gangurde
4.	Designing the project			Samarthya Ravindra Deore
5.	Documentation			Rasika Sunil Patil
6.	Demonstration			All Members