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**CHAPTER-1**

**SYNOPSIS**

**Objective:**

The primary objective of this project is to develop a comprehensive Payroll Management System integrated with an Employee Self Service (ESS) portal, designed to streamline and automate the payroll process while providing employees with direct access to their personal and payroll information. This system aims to improve efficiency, reduce administrative burdens, ensure accuracy and compliance with tax laws, and enhance employee satisfaction.

**Scope:**

The system caters to the needs of HR departments and employees of small to medium-sized enterprises. It encompasses various modules including payroll processing, tax management, employee management, time and attendance tracking, benefits administration, performance management, and reporting analytics. The inclusion of an ESS portal allows employees to view their pay slips, manage personal information, apply for leave, log attendance, and access tax forms independently, fostering transparency and empowerment among the workforce.

**CHAPTER-2**

**INTRODUCTION**

The Payroll Management System with Employee Self Service (ESS) Portal is a pivotal project designed to simplify and organize payroll and HR tasks for small to medium-sized enterprises. At its core, this system facilitates the efficient management of payroll processes, enabling accurate and timely handling of employee salaries, tax deductions, and benefits. A distinctive feature of this project is the integration of an Employee Self Service portal, which allows employees to actively engage with their payroll details, manage their personal information, submit leave requests, and view attendance records.

Developed using Visual Basic 6 (VB6), the project offers an intuitive interface for both administrators and employees, ensuring ease of use and accessibility. The backend, powered by Microsoft Access 2007, ensures data integrity and security. This project stands out by enhancing the communication between HR departments and employees, promoting transparency, and improving overall satisfaction without the complexity of automation.

**CHAPTER-3**

**SYSTEM REQUIREMENTS**

**3.1 Hardware Requirements**

* **Processor**: Intel Core i3 or similar, 1.5 GHz or higher
* **RAM**: 4 GB minimum
* **Display**: 1024 x 768 screen resolution minimum
* **Network Interface**: 100 Mbps Ethernet or Wi-Fi connectivity
* **Operating System**: Should be compatible with Microsoft Access 2007, which typically includes Windows versions from Windows XP through Windows 10.

**3.2 Software Requirements**

* **Visual Basic 6:** For the development of the application. Ensure that the VB6 development environment is installed on the development machine.
* **Microsoft Access 2007:** To design and manage the database. This should be installed on the developer’s machine to facilitate database schema creation, querying, and management.

**CHAPTER-4**

**SOFTWARE PROFILE**

**4.1 Microsoft Visual Basic 6.0**

Visual Basic 6.0 (VB6) is a powerful development environment from Microsoft, introduced in 1998, that gained widespread popularity for building desktop applications for Windows. As part of the Visual Basic series, VB6 made it possible for developers to quickly design user interfaces and write COM-based applications, leveraging a rich set of built-in components and an easy-to-understand programming language.

**Key Features:**

**Integrated Development Environment (IDE):**

VB6 provides a user-friendly IDE, making it straightforward for developers to drag and drop controls onto forms, set properties, and write code.

**Event-Driven Programming:**

Central to VB6 is its event-driven programming model, where code responses are triggered by user or system events, simplifying the development of interactive applications.

**Rich Library of Controls:**

VB6 includes a vast library of pre-built controls such as text boxes, buttons, and more complex elements like data grids, allowing for rapid UI development.

**COM Support:**

VB6 excels in creating and using COM (Component Object Model) components, facilitating the development of reusable software components and the integration with other COM-supporting applications.

**Database Access:**

With built-in support for data access through ADO (ActiveX Data Objects) and the ability to easily connect to databases like Microsoft Access and SQL Server, VB6 simplified database operations for developers.

**Extensibility:**

Developers could extend VB6's capabilities with custom controls, DLLs, and ActiveX components, making it versatile for various software development needs.

**Legacy and Continued Use:**

Despite being succeeded by Visual Basic .NET as part of Microsoft's .NET initiative in the early 2000s, VB6 has maintained a loyal following. Its ease of use, the productivity of its development environment, and the vast number of applications developed with it have contributed to its longevity. Microsoft has continued to ensure that VB6 applications are runnable on modern Windows versions, underlining the enduring value of the software and the applications built with it.

VB6's role in the development landscape has evolved, but its impact on programming, especially in creating business and productivity applications for Windows, is undeniable. Its simplicity, coupled with its powerful features, made it one of the most used programming environments of its time, and it remains a valued tool for maintaining legacy systems and for hobbyists and educators who appreciate its straightforward approach to learning programming principles.

**4.2 Microsoft Access**

**Overview:**

Microsoft Access is a powerful database management system (DBMS) from Microsoft, designed to combine the relational Microsoft Jet Database Engine with a graphical user interface and software-development tools. It is part of the Microsoft Office suite of applications, included in the professional and higher editions or sold separately. Access is geared towards small to medium-sized businesses and departments within larger organizations. It enables users to easily create database applications, manage data, and build user-friendly interfaces.

**Key Features:**

**User-Friendly Interface:**

Access provides a rich set of easy-to-use tools for creating database applications. Its intuitive design and comprehensive templates allow users to quickly develop data-driven solutions.

**Relational Database Model:**

At its core, Access uses the Microsoft Jet Database Engine, or Microsoft ACE with newer versions, supporting complex data relationships, queries, and transactions.

**Data Connectivity:**

It supports connections to various data sources, including SQL Server, Oracle databases, and other ODBC-compliant databases, allowing for the integration and manipulation of data from different systems.

**Report Generation:**

Access offers robust reporting tools that let users design detailed reports with calculations, summaries, and graphics, enhancing the presentation and analysis of data.

**Form Design:**

With Access, creating forms for data entry and editing is straightforward, improving user interaction and data integrity.

**VBA Scripting:**

It integrates with Visual Basic for Applications (VBA), enabling advanced data manipulation, automation of tasks, and customization of user interface elements.

**Scalability:**

While ideal for smaller projects and teams, Access databases can also be upscaled to SQL Server and Azure SQL Database for increased performance, reliability, and scalability in larger environments.

**VERSION HISTORY:**

Since its initial release in 1992, Microsoft Access has evolved through numerous versions, adding features and improving compatibility with other Microsoft products and external databases. The most recent versions have focused on enhancing web integration, cloud storage, and collaboration through Office 365 and SharePoint.

**System Requirements:**

System requirements for Microsoft Access vary by version. The later versions, such as Access 2019, require Windows 10 or Windows Server 2019, at least 2 GB of RAM, and 4 GB of disk space. Microsoft Access is also available as part of Office 365 subscriptions, with system requirements aligned with those of the Office suite.

**Use Cases:**

**Small Business Management:**

For managing customer databases, inventory systems, and small-scale HR functions.

**Departmental Applications:**

Within larger organizations, departments use Access for localized data management solutions, including project management tools and departmental budgets.

**Personal Productivity:**

Individuals use Access for organizing personal data, such as collections or hobbies, due to its ease of use and flexibility

**Limitations:**

Access is generally not suited for high-volume transactions or databases with many simultaneous users. For larger, more demanding environments, migrating to more robust systems like SQL Server is recommended.

As a desktop database system, it can be challenging to share Access applications over the web without using SharePoint or similar platforms.

**Conclusion:**

Microsoft Access remains a popular choice for users looking for an easy-to-use, versatile database solution. Its integration with the Office suite, along with its powerful features for database management, make it an invaluable tool for a wide range of business and personal applications.

**CHAPTER-5**