



Hawassa University

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Object Oriented Programming

Documentation on Employee Management System Project

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Chapter One - Introduction

- Information management is the process of collecting, storing, and organizing data in a way that allows for efficient retrieval and use.
- Its purpose is to ensure that the right information is available to the right people at the right time, in order to facilitate decision-making and support the efficient operation of an organization.
- Information management is the key to success for any organization. It can help organizations achieve their goals by efficiently managing information lifecycle.
- It also helps them avoid security breaches and data loss, which could lead to financial loss or other consequences.
- Information management begins with the creation and collection of data that is processed and analyzed into information. The next step is storage, sharing and archiving when data that is more current becomes available.
- Employee Management System Project is an essentially software designed to keep track of employee information in any company.
- It stores data such as their employees' personal information and information about the employees in relation to their organization. The goal of "Employee Management System" is to create a work center scheduling system.
- The employee management system project gives managers a better idea of their employees and helps them plan and manage their work hours in order to cut costs and boost productivity.
- It gives appropriate directions and supervisions for employees. It also secures and manages information that are important to the employees including personal and work-related information.

Chapter Two - Statement of the problem/ Description

- We can use a paper-based approach, database approach or just system console approaches. In this simple project, we try to see a simple “Employee Management System using System console application”.
- While managing information about employees, techniques like paper-based (rather than using database and system console) we face those problems:
 - ✓ Loss of Compliance and security
 - Paper-based human resource processes make complying with key legislative requirements more challenging. A key aspect of managing compliance is managing human resource data and ensuring that it has protected and secured with the right levels of privacy.
 - ✓ Unable to empower self-service
 - This approach to human resource processes entrusts responsibilities such as record keeping, training, holiday and absence requests to your employees. Staff will feel empowered when you remove the frustrations of the lack of fast responses away from human resource teams-that is a real benefit.
 - ✓ Loss of Workforce management
 - With an automated approach, notifications can be sent to managers and staff when a certain set of criteria is fulfilled. Automation is an enabler for all stuff, not just human resource.
 - ✓ Inefficiency and no real time data
 - Human resource efficiency requirements spans the entire hire to retire processes, including engagement, happiness and retention.
 - ✓ Lack of flexibility and agility
 - With agility comes the ability to act fast, respond to changes, leverage data enables proactive, data-driven decisions.

Chapter Three - Objective

❖ General Objective

- *Designing and implementing an automated method of handling personnel and/or organizational data about Employees is the overall goal of this project.*

❖ Particular Objective

- The specific objectives are organized as follows in order to fulfill the system's overall goal:
 - Collect the employee information
 - Retrieve employee information
 - Remove and Update information
 - Write the code

- Preparing testing plan and conduct unit testing
- Implement the proposed system

Chapter Four - Scope of the project:

- According to the objective of the project, the project should hit the aimed goals and work in the boundaries of the scope in order to say the project has been well designed. So the boundaries of the scope is:
 - ✓ At least the employee management system should insert and retrieve employee data (including setting employee payment) and
 - ✓ At most the employee management system should save the inserted data in a consistent file.
- So generally this project ranges from helping managers and employees to work together and accurately monitor, access, manage, and efficiently utilize the working hours for better business growth.

Chapter Five – Systems Description

❖ Existing System Description

- Most of the existing employee management systems are paper based and not accessible online. For this reason they are unable to modify data about employees and do not allow to view accessibility of administer in online platform which is time consuming and could cause information loss.

❖ Proposed System Description

- The existing project that we have been developing have a wide range of advantages over the old system including having online employee registration and deletion, also the specific administer have the right to set, update and delete the salary of employees.

Chapter Six - Functional Requirement

- The system to be designed should deliver the following functionality:
 1. Register new employee with first and last Name, age, salary, specification and department when new employee added
 2. Update the information about the employee whether their name, age, salary or department has been modified or not.
 3. Search the employee based on first name
 4. Search the drug based on ID number given at the time of registration
 5. Remove employee when it is retired or being fired and adjust the total number of the employees
 6. Display list of employees based on their ID.
 7. Give an account to the account holder with a username and password and give privilege to change the username and password.

➤ Tasks that are done in the project are:

1. Define classes called EmployeeService, Login, employee and manager which extends from employee
2. The Login class – holds the access to login and access the internal menus after login
 - 2.1. Write a method called insertData() under the class login to add user name and password in order to login to the program.
 - 2.2. Write a method called validation() under the class login to validate the inserted data in insertData() function.
 - 2.3. Write a method called ModifyUser() under the class login to update the username and password.
3. The EmployeeService class - hold all services like adding, deleting and updating employee data.
 - 3.1. Write a method called ViewAllemps() under EmployeeService to show all employees information.
 - 3.2. Write a method called Viewemps() under EmployeeService to search a specific employees information.
 - 3.3. Write a method called search_id() and search_name() in to the class EmployeeService to search employee based on id and name.
 - 3.4. Write a method called updateemployee(),delateemployee() and addemployee() in to the class EmployeeService to update employee information, delate employee and add employee respectively.
4. Save the newly added employees, updated employees and delated employees permanently in a structure of HashSet and then to the file.
5. Retrieve Employee information from saved structure
6. Retrieve Employee information by opening existing employee management file.
7. Write method menu() in the main class as a main menu for a good user interfacing including:
 - a. Add employee
 - b. Update employee
 - c. Search employee
 - d. View(Display) all employee
 - e. Manage account
 - f. All employee management
 - g. Exit

Reference

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