

**UNIVERSITY OF ENGINEERING
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(NEW CAMPUS)



DOCUMENTATION OF SEMESTER PROJECT

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CONTENTS

1.1:	
Introduction about Payroll Management	
System.....	3
1.2:	
Description about Program	
.....	3
1.3:	
Menu of the program	
.....	04
1.4:	
Advantages of Payroll Management System	
.....	07
1.5:	
Need of Payroll Management System	
.....	07

PAYROLL MANAGEMENT

SYSTEM

Payroll systems manage everything having to do with the process of paying employees and filing employment taxes. Payroll management system manage data of employee by calculating salary of employee and print salary slip of employee and manage this information in file
Payroll_management_system.txt

1.2:

Description of program:

1. Header Files:

- **iostream:**

iostream stands for standard input-output stream. This header file contains definitions of objects like cin, cout, cerr, etc. iomanip: iomanip stands for input-output manipulators. The methods declared in these files are used for manipulating streams. This file contains definitions of setw, setprecision, etc.

- **Stdlib.h:**

stdlib.h is the header of the general purpose standard library of C programming language which includes functions involving memory allocation, process control, conversions and others.

- **Fstream:**

It is used to create files, write information to files, and read information from files.

- String:

The string header defines one variable type, one macro, and various functions for manipulating arrays of characters.

- Sstream:

The stringstream class in C++ allows a string object to be treated as a stream. It is used to operate on strings. By treating the strings as streams we can perform extraction and insertion operation from/to string just like cin and cout streams.

1.3: MENU OF THE PROGRAM

```
*****
*                                     *
*               PAY ROLL MANAGMENT SYSTEM               *
*                                     *
*****

Enter 1 to Enter Information of Employee to Manage Salary of Specific Month
Enter 2 to Print Salary Slips of Specific Month
Enter 3 to Add new employee
Enter 4 to Quit

Enter Your Choice::
```

DESCRIPTION OF THE MENU:

1. If user enters 1, the user will be asked to enter the ID of employee if ID found than user allow to edit the information of employee and populate the following fields: Employee ID, Employee Name, Designation, Basic Salary, Month, Leaves, Allowed Leaves, Per Leave Deduction Rate. System will calculate the salary using the formula discussed above. System will store this information in **EmployeesManagementSystem.txt**. System will get information of all employees in loop and will exit the loop when user enter N.

```
*****
*                                     *
*                                CALCULATE SALARY OF SPECIFIC MONTH                                *
*                                     *
*****

Enter following information of Employee, to enter salary details:

Enter Employee ID: E001

Edit the Data of E001
Employee Name:: Usman Raza
Designation:: Lecturer
Enter the month:: February
Enter the leaves:: 7
Enter the Allowed leaves:: 4
Enter the Per leave Deduction Rate:: 500

Do you want to search for another Employee? (Y/N) _
```

2. If user enters 2, System will ask user to enter Month against which each employee salary slip will be printed. For example user enters “January”. System will process **EmployeesManagementSystem.txt** file and generate salary slips of each employee individually. These salary slips will be saved on disk having file naming convention as <Employee ID>_<EmployeeName>_<Month>_SalarySlip.txt. The information in each slip is saved in defined format as discussed in the table below. Please note that text of <Employee ID>_<EmployeeName>_<Month> will be extracted from **EmployeesManagementSystem.txt** against each employee.

```
*****
*                                     *
*                                SALARY SLIP GENERATOR                                *
*                                     *
*****

Enter Month Against you want print salary::January

Sucessfully Generated Salary Slips Against January
```

Input Validation:

- If Salary slips against month enter by user than salary slips generated other wise salary slips not exist.

```
*****
*                                     *
*                               SALARY SLIP GENERATOR                               *
*                                     *
*****

Enter Month Against you want print salary::March

Salary Slips not exist against  March
```

3. If user Enter 3, System will ask information of employee including Employee ID, Employee Name, Designation, Basic Salary, Month, Leaves, Allowed Leaves and Per Leave Deduction Rate, and will populate in **EmployeesManagementSystem.txt**.

```
*****
*                                     *
*                               ENTER INFORMATION OF NEW EMPLOYEE                               *
*                                     *
*****

Enter Employee ID:: E019
Enter Employee Name:: Ali Haider
Enter Designation:: Assistant Profesor
Enter Basic Salary:: 60000
Enter Month:: January
Enter Leaves:: 8
Enter Allowed Leaves:: 8
Enter Per Leave Deduction:: 900

Enter -1 to exit and any other number to add new employee:: 8
```

4. To exit the program, the user will enter **4** as choice and program will be exited successfully.

1.4: ADVANTAGES OF PAYROLL MANAGEMENT SYSTEM:

- work out payroll calculations and deductions quicker
- generate accurate salary slips • reduce the burden of compliance
- can easily be accessed.
- Is time saving
- No need for expertise.
- Cost effective.

1.5: NEED OF PAYROLL SYSTEM :

- To avoid errors
- Time saving
- Precise calculations
- Exact calculations
- Speed effective
- Reliability