

**MINI PROJECT REPORT**

**PAYROLL MANAGEMENT SYSTEM USING C++**





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**DECLARATION**

## I, **Yash Khati** student of **B-tech, Semester 3,** Department of Computer Science and Engineering, Graphic Era Hill University, Dehradun, declare that the technical project work entitled **“Payroll Management System”** has been carried out by me and submitted in partial fulfillment of the course requirements for the award of degree in B- tech of **Graphic Era Hill University** during the academic year **2021-2022**. The matter embodied in this synopsis has not been submitted to any other university or institution for the award of any other degree or diploma.

## Date: 20/02/22

* **PROBLEM STATEMENT**

**To make a Payroll Management System** that helps in calculating salaries, earnings, deductions, taxes, and other necessary aspects of the net pay of all the employees in an organization.

* **MOTIVATION**

The Motivation of this Project is to build a trustworthy relationship with employees to have a win-win situation at work. As an employer ,one must introduce a payroll system that is accurate, timely and compliant.

* **TOOLS USED**

Payroll Management System project is created in **C++.**

This project has been designed and implemented using VS CODE .

**SOFTWARE USED:**

Operating system : Windows 10

IDE : VS CODE

**HARDWARE USED:**

Processor : Intel ® Core i3 Hard Drive : 500GB

RAM : 4 GB

**METHODOLOGY FOLLOWED**

C++ has been used for the designing and implementation of this Project. It has imperative, object-oriented and generic programming features.Some of its features used in this project are:

* CLASS

It is a user-defined data type, which holds its own data members and member functions, which can be accessed and used by creating an instance of that class. A C++ class is like a blueprint for an object.

* OBJECT

An **Object** is an instance of a Class. When a class is defined, no memory is allocated but when it is instantiated (i.e. an object is created) memory is allocated.

* FUNCTION

A function is a set of statements that take inputs, do some specific computation and produces output. Every C++ program has at least one function, which is main().The idea is to put some commonly or repeatedly done task together and make a function so that instead of writing the same code again and again for different inputs, we can call the function.

A FUNCTION HAS FOLLOWING PARTS:

* Function Name
* Return Type
* Parameters
* Function Body

***Some important functions used in the project are:***

* **gotoxy() function** places the cursor at the desired location on the screen.VS Code don’t have a gotoxy() predefined function.Therefore,“SetConsoleCursorPosition()” can be used to carry out the same procedure. To use this function add a header file called #include<windows.h>. The arguments for SetConsoleCursorPosition() are:
* Handle: To get the value of handle, call a predefined function “GetStdHandle(STD\_OUTPUT\_HANDLE)”.
* Coord: The predefined function used to get X and Y coordinates.
* **login()** function checks the correct user name and password .
* **getdata() and showdata** function to get data for an employee and to show data of the employees respectively.
* **add\_Employee()** function to add employee record to the file.
* **search\_Emp()** function to search employee record in the file.
* **modify\_Emp()** function to modify employee details in file.
* **delete\_Emp()** function to delete employee record in file.
* FILE HANDLING

In the software industry, most of the programs are written to store the information fetched from the program. One such way is to store the fetched information in a file.Different operations that can be performed on a file are:

1. Creation of a new file (**fopen with attributes as “ios::in” , “ios::out” or “ios::app”)**
2. Opening an existing file (**fopen**)
3. Reading from file
4. Writing to a file (**write function**)
5. Moving to a specific location in a file (**fseekp**)
6. Closing a file (**fclose**)

For performing the operations on the file, a special pointer called File pointer is used which is declared as   
 **FILE \*filePointer;**

So, the file can be opened as

**filePointer = fopen(“fileName.txt”, ios::in)**

The second parameter can be changed to contain all the attributes listed above.

General Syntax of some important file Operations:

* ***Reading from a file –***

**int fscanf(FILE \*stream, const char \*format [, argument, ...])**

* ***Writing into a file –****:*

**int fprintf(FILE \*stream, const char \*format [, argument, ..])**

* ***Closing a file –:***

**int fclose( FILE \*fp );**

**CODE SNIPPETS**







