**A**
**Project Report**
**On**

"Employee Management System"

Submitted To

**BHARATI VIDYAPEETH**
**(DEEMED TO BE UNIVERSITY) PUNE**
In the partial fulfillment for requirement of the degree

BACHELOR OF COMPUTER APPLICATION
(BCA - II SEM - IV   2020-21)

Submitted By

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Under the guidance of

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Through The

INSTITUTE OF MANAGEMENT AND RURAL DEVELOPMENT ADMINISTRATION, SANGLI

# Bharati Vidyapeeth Deemed University
## Institute of Management & Rural Development
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## CERTIFICATE

This is certified that a Project Report titled **"Employee Management System"** Submitted By **Mr. Yadav. Swaraj. V ,**
**Mr. Solanki. Pranav. C , Mr. Pujari. Mayur. N . BCA Sem-IV** in partial fulfillment for requirement of the degree of 'Bachelor of Computer Application' submitted to Bharati Vidyapeeth Deemed University, Punehas been completed under my guidance.

To the best of my knowledge and belief matter presented by her/him/them is original in nature and has not been copied down from any sources.

**Prof. Dr. S. M. Patil**          **Dr. R. S. Pujari**          **Prof. Dr. P. P. Jamsandekar**
**(Guide)**                               **( HoD )**                           **(Director)**

Examiner:

# Declaration

To,
The Director
BVDU IMRDA, Sangli

Respected Madam,

We the undersigned hereby declare that the Project report entitled, **"Employee Management System"** written and submitted under the guidance of **Mr. Yadav. Swaraj. V, Mr. Solanki. Pranav. C, Mr. Pujari. Mayur. N** is my Original Work. The Empirical findings in this report are based on information collected by us. We have not copied from any report submitted to BVDU IMRDA, Sangli.

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# Acknowledgement

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**Place:** Sangli

**Date:**

# Index

# Introduction of C

**C** is a procedural programming language. It was initially developed by **Dennis Ritchie** in the year 1972. It was mainly developed as a system programming language to write an operating system. The main features of the **C** language include low-level memory access, a simple set of keywords, and a clean style, these features make C language suitable for system programming like an operating system or compiler development.

Many later languages have borrowed syntax/features directly or indirectly from the **C** language. Like syntax of Java, PHP, JavaScript, and many other languages are mainly based on the **C** language. **C++** is nearly a superset of **C** language.

**C** is a general-purpose programming language that is extremely popular, simple, and flexible to use. It is a structured programming language that is machine-independent and extensively used to write various applications, Operating Systems like Windows, and many other complex programs like Oracle database, Git, Python interpreter, and more.

It is said that 'C' is a god's programming language. One can say, **C** is a base for the programming. If you know '**C**,' you can easily grasp the knowledge of the other programming languages that uses the concept of '**C**'

It is essential to have a background in computer memory mechanisms because it is an important aspect when dealing with the C programming language.

# Objectives In C

## 1. Operating Systems

The first operating system to be developed using a high-level programming language was UNIX, which was designed in the C programming language. Later on, Microsoft Windows and various Android applications were scripted in C.

## 2. Embedded Systems

The C programming language is considered an optimum choice when it comes to scripting applications and drivers of embedded systems, as it is closely related to machine hardware.

## 3. GUI

GUI stands for Graphical User Interface. Adobe Photoshop, one of the most popularly used photo editors since olden times, was created with the help of C. Later on, Adobe Premiere and Illustrator were also created using C.

## 4. New Programming Platforms

Not only has C given birth to C++, a programming language including all the features of C in addition to the concept of object-oriented programming but, various other programming languages that are extensively used in today's world like MATLAB and Mathematica. It facilitates the faster computation of programs.

## 5. Google

Google file system and Google chromium browser were developed using C/C++. Not only this, the Google Open Source community has a large number of projects being handled using C/C++.

## 6. Mozilla Firefox and Thunderbird

Since Mozilla Firefox and Thunderbird were open-source email client projects, they were written in C/C++.

### 7. MySQL

MySQL, again being an open-source project, used in Database Management Systems was written in C/C++.

### 8. Compiler Design

One of the most popular uses of the C language was the creation of compilers. Compilers for several other programming languages were designed keeping in mind the association of C with low-level languages, making it easier to be comprehensible by the machine.

Several popular compilers were designed using C such as Bloodshed Dev-C, Clang C, MINGW, and Apple C.

### 9. Gaming and Animation

Since the C programming language is relatively faster than Java or Python, as it is compiler-based, it finds several applications in the gaming sector. Some of the most simple games are coded in C such as Tic-Tac-Toe, The Dino game, The Snake game and many more. Increasing advanced versions of graphics and functions, Doom3 a first-person horror shooter game was designed by id Software for Microsoft Windows using C in 2004.

## Summary

- 'C' was developed by Dennis Ritchie in 1972.
- It is a robust language.
- It is a low programming level language close to machine language
- It is a procedure and structure-oriented language.
- It has the full support of various operating systems and hardware platforms.
- Many compilers are available for executing programs written in 'C'.
- A compiler compiles the source file and generates an object file.
- A linker links all the object files together and creates one executable file.

# Advantages of C

## 1. Building block for many other programming languages

C is considered to be the most fundamental language that needs to be studied if you are beginning with any programming language. Many programming languages such as Python, C++, Java, etc. are built with the base of the C language.

## 2. Powerful and efficient language

C is a robust language as it contains many data types and operators to give you a vast platform to perform all kinds of operations.

## 3. Portable language

C is very flexible, or we can say machine independent that helps you to run your code on any machine without making any change or just a few changes in the code.

## 4. Built-in functions

There are only 32 keywords in ANSI C, having many built-in functions. These functions are helpful when building a program in C.

## 5. Quality to extend itself

Another crucial ability of C is to extend itself. We have already studied that the C language has its own set of functions in the C library. So, it becomes easy to use these functions. We can add our own functions to the C Standard Library and make code simpler.

## 6. Structured programming language

C is structure-based. It means that the issues or complex problems are divided into smaller blocks or functions. This modular structure helps in easier and simpler testing and maintenance.

## 7. Middle-level language

C is a middle-level programming language that means it supports high-level programming as well as low-level programming. It supports the use of kernels and drivers in low-level programming and also supports system software applications in the high-level programming language.

## 8. Implementation of algorithms and data structures

The use of algorithms and data structures in C has made program computations very fast and smooth. Thus, the C language can be used in complex calculations and operations such as MATLAB.

## 9. Procedural programming language

C follows a proper procedure for its functions and subroutines. As it uses procedural programming, it becomes easier for C to identify code structure and to solve any problem in a specific series of code. In procedural programming C variables and functions are declared before use.

## 10. Dynamic memory allocation

C provides dynamic memory allocation that means you are free to allocate memory at run time. For example, if you don't know how much memory is required by objects in your program, you can still run a program in C and assign the memory at the same time.

## 11. System-programming

C follows a system-based programming system. It means the programming is done for the hardware devices.

# Limitations

**1.** Difficult to debug.

**2.** C allows a lot of freedom in writing code, and that is why you can put an empty line or white space anywhere in the program. And because there is no fixed place to start or end the line, so it isn't easy to read and understand the program.

**3.** C compilers can only identify errors and are incapable of handling exceptions (run-time errors).

**4.** C provides no data protection.

**5.** It also doesn't feature the reusability of source code extensively.

**6.** It does not provide strict data type checking (for example, an integer value can be passed for floating datatype).

# System Requirements

Well, hardware requirements are not much, you just need a laptop or desktop computer which has it's basic functionality. You can also use college computers if you don't have one.

But the main thing is the software requirements for the project on which you want to work.

Here are some useful softwares which help a lot in making programs from scratch.

### 1. Editor

You need an editor for writing all the programs ( source codes ) . And the best editor for that is Dev C. Also, Turbo C, VS Code, Notepad++ are some of the useful software and programs which can be used on Windows, Linux and Mac OS accordingly.

### 2. Compiler

You always need a compiler in order to convert the source code into an executable program for the end user. It also spots errors and suggests corrections in the code. Generally, editors like Dev C and Turbo C have a built-in compiler. But if the source code is written notepad or any other normal text editor, it can be compiled and then executed using Command Prompt, PowerShell or Terminal depending on your system OS.

# Source-Code

```c
/*              Employee_Management_program    */

#include<stdio.h>
#include<conio.h>
#include<string.h>
#include<process.h>
#include<stdlib.h>


        struct employee
        {
                int eno,age;
                char name[20],dept[20];
                float sal,nsal,ded,awl;
        }emp[8];



int main()

{
        system("COLOR 70");

        printf("\n\n\n ");
        printf("\n\t\t\t\t\t\t\t\t\t===============================================");
        printf("\n\t\t\t\t\t\t\t\t\t|                                    |");
        printf("\n\t\t\t\t\t\t\t\t\t|      ----------------------         |");
        printf("\n\t\t\t\t\t\t\t\t\t|          ROYAL GROUP LTD. INDIA           |");
        printf("\n\t\t\t\t\t\t\t\t\t|      ----------------------         |");
        printf("\n\t\t\t\t\t\t\t\t\t|                                    |");
        printf("\n\t\t\t\t\t\t\t\t\t===============================================\n\n");

        printf("\n\t\t\t\t\t\t\t\t\t\t WELL-COME TO OUR SYSTEM ...!!! ");
        printf("\n\n\n\t\t\t\t\t Press any key to Continue ... ");
        getch();

        login();
        getch();
}

void login()
{
        int a=0,i=0;
  char uname[10],c=' ';
  char pword[10],code[10];
  char user[10]="admin";
  char pass[10]="           ";
  do
{
        system("cls");
        printf("\n\n\n\t  ");
        printf("\n\t\t\t\t\t\t\t\t\t===============================================");
        printf("\n\t\t\t\t\t\t\t\t\t|                                    |");
        printf("\n\t\t\t\t\t\t\t\t\t|      ----------------------         |");
        printf("\n\t\t\t\t\t\t\t\t\t|          ROYAL GROUP LTD. INDIA           |");
        printf("\n\t\t\t\t\t\t\t\t\t|      ----------------------         |");
        printf("\n\t\t\t\t\t\t\t\t\t|                                    |");
        printf("\n\t\t\t\t\t\t\t\t\t===============================================\n\n");
   printf("\n\n\t\t\t\t\t\t\t ====================== USER LOGIN =====================\n ");
   printf("\n\t\t\t\t\t\t\t\t ENTER USERNAME :-   ");
        scanf("%s", &uname);
        printf("\n\t\t\t\t\t\t\t\t ENTER PASSWORD :-   ");
        while(i<10)
        {
```

```c
            pword[i]=getch();
            c=pword[i];
            if(c==13) break;
            else printf("*");
            i++;
    }
    pword[i]='\0';
    //char code=pword;
    i=0;
    //scanf("%s",&pword);
            if(strcmp(uname,"admin")==0 && strcmp(pword,"admin0321")==0)
    {
            system("cls");
            printf("\n\n\n\t   ");
            printf("\n\t\t\t\t\t\t\t\t\t===============================================");
            printf("\n\t\t\t\t\t\t\t\t\t|                                   |");
            printf("\n\t\t\t\t\t\t\t\t\t|     ----------------------------      |");
            printf("\n\t\t\t\t\t\t\t\t\t|          ROYAL GROUP LTD. INDIA          |");
            printf("\n\t\t\t\t\t\t\t\t\t|     ----------------------------      |");
            printf("\n\t\t\t\t\t\t\t\t\t|                                   |");
            printf("\n\t\t\t\t\t\t\t\t\t===============================================\n\n");
            printf("\n\n\t\t\t\t\t\t\t   WELL-COME TO OUR SYSTEM  ...###...  YOUR LOGIN IS SUCCESSFUL");
            printf("\n\n\n\t\t\t\t Press any key to Continue ... ");
            getch();
            system("cls");

            struct employee emp;
            char found='n';
            long int recsize;
            int empno;
            char another,ch;
            float sum=0;

            FILE *fp, *ft;
            fp=fopen("employlog.dat","rb+");
            if(fp==NULL)
            {
                    fp=fopen("employlog.dat","wb+");
                    if(fp==NULL)
                    {
                            printf ("\n cannot open file");
                            exit(0);
                    }
            }
            recsize=sizeof(emp);

                    system("COLOR 70");

                    printf("\n\t\t\t\t   ");
                    printf("\n\t\t\t\t   ");
                    printf("\n\t\t\t\t\t\t\t\t\t\t ===============================================");
                    printf("\n\t\t\t\t\t\t\t\t\t\t |                                   |");
                    printf("\n\t\t\t\t\t\t\t\t\t\t |     ----------------------------      |");
                    printf("\n\t\t\t\t\t\t\t\t\t\t |          ROYAL GROUP LTD. INDIA          |");
                    printf("\n\t\t\t\t\t\t\t\t\t\t |     ----------------------------      |");
                    printf("\n\t\t\t\t\t\t\t\t\t\t |                                   |");
                    printf("\n\t\t\t\t\t\t\t\t\t\t ===============================================\n\n");
                    printf("\n\t\t\t\t\t\t   ");
                    system("cls");

            while(1)
            {

                    printf("\n\n\t\t\t\t   ");
                    printf("\n\t\t\t\t   ");
                    printf("\n\t\t\t\t\t\t\t\t\t\t ===============================================");
                    printf("\n\t\t\t\t\t\t\t\t\t\t |                                   |");
                    printf("\n\t\t\t\t\t\t\t\t\t\t |     ----------------------------      |");
                    printf("\n\t\t\t\t\t\t\t\t\t\t |          ROYAL GROUP LTD. INDIA          |");
```

```c
                printf("\n\t\t\t\t\t\t\t\t |        ----------------------------            |");
                printf("\n\t\t\t\t\t\t\t\t |                                               |");
                printf("\n\t\t\t\t\t\t\t\t ================================================\n\n");
                printf("\n\t\t\t\t\t ");
                printf("\n\t\t\t\t ");
                printf("\n\t\t\t\t\t\t\t\t\t    Employee Record Database ");
                printf("\n\n\t\t\t\t\t\t\t\t\t================================");
                printf("\n\t\t\t\t ");
                printf("\n\t\t\t\t\t\t\t\t\t    1. Add Record ");
                printf("\n\t\t\t\t\t\t\t\t\t    2. Display Records");
                printf("\n\t\t\t\t\t\t\t\t\t    3. Search Records");
                printf("\n\t\t\t\t\t\t\t\t\t    4. Modify Records");
                printf("\n\t\t\t\t\t\t\t\t\t    5. Delete Records");
                printf("\n\t\t\t\t\t\t\t\t\t    6. Exit");
                printf("\n\n\t\t\t\t\t\t\t\t\t================================");
                printf("\n\t\t\t\t ");
                printf("\n\n\t\t\t\t\t\t Enter your Task :- ");
                fflush(stdin);
                ch=getche();
                printf("\n\t\t\t ");
                system("cls");

        switch(ch)
        {
                case '1' :
                        fseek(fp,0,SEEK_END);
                        another='Y';
                        while(another=='y'|| another=='Y')
                        {

                                printf("\n\n\t\t\t    ");
                                printf("\n\t\t\t    ");
                                printf("\n\t\t\t\t\t\t\t\t
================================================");
                                printf("\n\t\t\t\t\t\t\t\t |                               |");
                                printf("\n\t\t\t\t\t\t\t\t |      ----------------------------            |");
                                printf("\n\t\t\t\t\t\t\t\t |          ROYAL GROUP LTD. INDIA          |");
                                printf("\n\t\t\t\t\t\t\t\t |      ----------------------------            |");
                                printf("\n\t\t\t\t\t\t\t\t |                               |");
                                printf("\n\t\t\t\t\t\t\t\t
================================================\n\n");
                                printf("\n\t\t\t\t\t ");
                                printf("\n\t\t\t\t    ");
                                printf("\n\t\t\t\t\t\t\t\t\t----------------------------------------- ");

                                printf("\n\t\t\t\t\t\t\t\t\t\t Add Empolyee Record to Database ");
                                printf("\n\t\t\t\t\t\t\t\t\t----------------------------------------- ");
                                printf("\n\t\t\t\t    ");
                                printf("\n\t\t\t\t\t\t\t================================");
                                printf("\n\n\t\t\t\t\t\t\t Enter Employee No :- ");
                                scanf("%d",&emp.eno);
                                printf("\n\t\t\t\t\t\t\t Enter Employee Name :-  ");
                                scanf("%s",&emp.name);
                                printf("\n\t\t\t\t\t\t\t Enter Employee Age :- ");
                                scanf("%d",&emp.age);
                                printf("\n\t\t\t\t\t\t\t Enter Employee Department :-  ");
                                scanf("%s",&emp.dept);
                                printf("\n\t\t\t\t\t\t\t Enter Net Salary :- ");
                                scanf("%f",&emp.nsal);
                                printf("\n\t\t\t\t\t\t\t Enter Allowances :- ");
                                scanf("%f",&emp.awl);
                                printf("\n\t\t\t\t\t\t\t Enter Deductions :- ");
                                scanf("%f",&emp.ded);
                                emp.sal=emp.nsal+emp.awl-emp.ded;
                                printf("\n\t\t\t\t\t\t\t Employee Salary :-      %6.2f",emp.sal);
                                fwrite(&emp,recsize,1,fp);
                                printf("\n\t\t\t\t\t\t\t================================");
                                printf("\n\n\n\t\t\t\t\t\t\t Add another Record ( Y / N ) ...... ");
                                fflush(stdin);
```

```c
                                another=getche();
                                system("cls");
                        }
                        break;

                case '2' :
                        rewind(fp);
                        system("COLOR 07");
                        printf("\n\t\t\t    ");
                        printf("\n\t\t\t    ");
                        printf("\n\t\t\t\t\t\t\t\t\t----------------------------------------------- ");
                        printf("\n\t\t\t\t\t\t\t\t\t   Avilable Employee Information in Database ");
                        printf("\n\t\t\t\t\t\t\t\t\t----------------------------------------------- ");
                        printf("\n\t\t\t    ");
                        float sum=0;

        printf("\n\n\t\t\t\t===============================================================================================================\n");
                        printf("\n\t\t\t Employee No. \t  Employee Name \tEmployee Age \t  Employee Department \t\tNet salary \t  Allowence \t  Deductions \t Pay Salary ");

        printf("\n\n\t\t\t\t===============================================================================================================\n");

                        while(fread(&emp,recsize,1,fp)==1)
                        {
                                printf("\n\t\t\t    %d \t\t%s \t\t%d \t\t%s \t\t\t%6.2f /- \t %6.2f /- \t   %6.2f /- \t %6.2f /- \n",emp.eno,emp.name,emp.age,emp.dept,emp.nsal,emp.awl,emp.ded,emp.sal);
                                sum=emp.sal+sum;
                        }

        printf("\n\n\t\t\t\t===============================================================================================================\n");
                        printf("\n\n\t\t\t\t\t\t\t    \t\t   \t\t        \t  \t                                      =======================================");
                        printf("\n\n\t\t\t\t\t\t\t    \t\t   \t\t        \t       \tTotal Pay Salary :-   %6.2f /- ",sum);
                        printf("\n\n\t\t\t\t\t\t\t    \t\t   \t\t        \t  \t                                      =======================================");

                        printf("\n\n\n\t\t\t\t Press any key to Continue to Menu ...... ");
                        getch();
                        system("cls");
                        system("COLOR 70");
                        break;

                case '3' :

                        fp=fopen("employlog.dat","rb+");
                        rewind(fp);
                        printf("\n\n\t\t\t    ");
                        printf("\n\t\t\t    ");
                        printf("\n\t\t\t\t\t\t\t\t\t =============================================");
                        printf("\n\t\t\t\t\t\t\t\t\t |                                           |");
                        printf("\n\t\t\t\t\t\t\t\t\t |       ----------------------------        |");
                        printf("\n\t\t\t\t\t\t\t\t\t |           ROYAL GROUP LTD. INDIA          |");
                        printf("\n\t\t\t\t\t\t\t\t\t |       ----------------------------        |");
                        printf("\n\t\t\t\t\t\t\t\t\t |                                           |");
                        printf("\n\t\t\t\t\t\t\t\t\t  =============================================\n\n");
                        printf("\n\t\t\t\t\t  ");
                        printf("\n\t\t\t    ");
                        printf("\n\t\t\t\t\t\t\t\t Enter Employee No to Search in File :-");
                        scanf("%d",&empno);
                        system("cls");
                        do{
                                while(empno==emp.eno)
                                {
                                        if(empno==emp.eno)
                                        {
```

```c
                                        printf("\n\t\t\t\t    ");
                                                                        printf("\n\n\t\t\t    ");
                                                                        printf("\n\t\t\t\t\t\t\t\t\t
=======================================");
                                                                        printf("\n\t\t\t\t\t\t\t\t\t |                              |");
                                                                        printf("\n\t\t\t\t\t\t\t\t\t |       ----------------------         |");
                                                                        printf("\n\t\t\t\t\t\t\t\t\t |            ROYAL GROUP LTD. INDIA
|");
                                                                        printf("\n\t\t\t\t\t\t\t\t\t |       ----------------------         |");
                                                                        printf("\n\t\t\t\t\t\t\t\t\t |                              |");
                                                                        printf("\n\t\t\t\t\t\t\t\t\t
=======================================\n\n");
                                                                        printf("\n\n\t\t\t\t\t\t\t\t\t    Employee Data Found for :-
%d",emp.eno);
                                                                        printf("\n\n\t\t\t\t\t\t\t\t\t
=======================================\n");

                                                                        printf("\n\t\t\t\t\t\t\t\t\t    Employee No :-                      %d
\n\t\t\t\t\t\t\t\t\t Employee Name :-               %s \n\t\t\t\t\t\t\t\t\t        Employee Age :-        %d Ys \n\t\t\t\t\t\t\t\t\t
        Employee Net Salary :-        %6.2f /- \n\t\t\t\t\t\t\t\t\t   Employee Allowances :-        %6.2f /- \n\t\t\t\t\t\t\t\t\t
        Employee Deductions :-        %6.2f /- \n\t\t\t\t\t\t\t\t\t   Employee Pay Salary :-        %6.2f /-
",emp.eno,emp.name,emp.age,emp.nsal,emp.awl,emp.ded,emp.sal);

                                                                        printf("\n\n\t\t\t\t\t\t\t\t\t
=======================================\n");
                                                                        printf("\n\n\n\t\t\t\t\t Press any key to continue Menu ..... ");
                                                                        getch();
                                                                        system("cls");
                                                                        found='y';
                                                                        break;
                                                        }
                                                else if (found ='n' &&  empno!=emp.eno );
                                                {
                                                        printf("\n Employee No Not found in File .....");
                                                        getch();
                                                        break;
                                                }
                                        }
                                }while(fread(&emp,recsize,1,fp)==1);
                                break;
                                system("cls");

                        case '4' :
                                rewind(fp);
                                printf("\n\n\t\t\t\t    ");
                                printf("\n\t\t\t\t    ");
                                printf("\n\t\t\t\t\t\t\t\t\t =======================================");
                                printf("\n\t\t\t\t\t\t\t\t\t |                              |");
                                printf("\n\t\t\t\t\t\t\t\t\t |       ----------------------         |");
                                printf("\n\t\t\t\t\t\t\t\t\t |            ROYAL GROUP LTD. INDIA            |");
                                printf("\n\t\t\t\t\t\t\t\t\t |       ----------------------         |");
                                printf("\n\t\t\t\t\t\t\t\t\t |                              |");
                                printf("\n\t\t\t\t\t\t\t\t\t
=======================================\n\n");
                                printf("\n\t\t\t\t\t\t  ");
                                printf("\n\t\t\t\t    ");
                                printf("\n\t\t\t\t\t\t\t\t\t\t Modify Employee Record in Database ");
                                printf("\n\t\t\t\t\t\t\t\t\t\t=================================");
                                printf("\n\t\t\t\t    ");
                                printf("\n\t\t\t\t\t\t\t\t\t Enter Employee No. to modify record in file :-");
                                scanf("%d",&empno);
                                printf("\n\t\t\t\t\t\t
=======================================\n");
                                system("cls");
                                printf("\n\t\t\t\t    ");
                                printf("\n\t\t\t\t    ");
                                printf("\n\t\t\t\t\t\t\t\t\t =======================================");
                                printf("\n\t\t\t\t\t\t\t\t\t |                              |");
```

```c
                                           printf("\n\t\t\t\t\t\t\t\t\t | -------------------------- |");
printf("\n\t\t\t\t\t\t\t\t\t | ROYAL GROUP LTD. INDIA |");
                                           printf("\n\t\t\t\t\t\t\t\t\t | -------------------------- |");
                                           printf("\n\t\t\t\t\t\t\t\t\t | |");
                                           printf("\n\t\t\t\t\t\t\t\t\t
===============================================\n\n");
                                           printf("\n\t\t\t\t\t ");
                                           printf("\n\t\t\t ");
                                           printf("\n\t\t\t ");
                                           printf("\n\t\t\t ");
                                           printf("\n\t\t\t\t\t\t\t\t\t Modify Employee Record in Database for Employee %d ",empno);

           printf("\n\n\t\t\t\t\t\t\t\t\t=========================================================\n");
                                           while(fread(&emp,recsize,1,fp)==1)
                                           {
                                                   if(empno==emp.eno)
                                                   {
                                                           printf("\n\t\t\t\t\t\t\t\t\t Enter New Employee Details ");
                                                           printf("\n\n\t\t\t\t\t\t\t\t\t=============================");
                                                           printf("\n\n\t\t\t\t\t\t\t\t\t\t Enter New Employee No to Modify :- ");
                                                           scanf("%d",&emp.eno);
                                                           printf("\n\t\t\t\t\t\t\t\t\t\t Enter New Employee Name :- ");
                                                           scanf("%s",&emp.name);
                                                           printf("\n\t\t\t\t\t\t\t\t\t\t Enter New Employee Age :- ");
                                                           scanf("%s",&emp.age);
                                                           printf("\n\t\t\t\t\t\t\t\t\t\t Enter New Employee Department :- ");
                                                           scanf("%s",&emp.dept);
                                                           printf("\n\t\t\t\t\t\t\t\t\t\t Enter New Net Salary :- ");
                                                           scanf("%f",&emp.nsal);
                                                           printf("\n\t\t\t\t\t\t\t\t\t\t Enter New Allowances :- ");
                                                           scanf("%f",&emp.awl);
                                                           printf("\n\t\t\t\t\t\t\t\t\t\t Enter New Deductions :- ");
                                                           scanf("%f",&emp.ded);
                                                           emp.sal=emp.nsal+emp.awl-emp.ded;
                                                           printf("\n\t\t\t\t\t\t\t\t\t\t Employee Pay Salary :-     %6.2f /-",emp.sal);
                                                           printf("\n\n\t\t\t\t\t\t\t\t\t=============================\n");
                                                           fseek(fp,-recsize,SEEK_CUR);
                                                           fwrite(&emp,recsize,1,fp);
                                                           getch();
                                                           system("cls");
                                                           printf("\n\n\n\n\t\t\t\t\t\t\t\t\t Record Updated Successfully......");
                                                           break;
                                                           system("cls");
                                                   }
                                           }
                                           break;
                                           system("cls");

                   case '5' :
                                   rewind(fp);
                                   printf("\n\n\t\t\t ");
                                   printf("\n\t\t\t ");
                                   printf("\n\t\t\t\t\t\t\t\t\t ===============================================");
                                   printf("\n\t\t\t\t\t\t\t\t\t | |");
                                   printf("\n\t\t\t\t\t\t\t\t\t | -------------------------- |");
                                   printf("\n\t\t\t\t\t\t\t\t\t | ROYAL GROUP LTD. INDIA |");
                                   printf("\n\t\t\t\t\t\t\t\t\t | -------------------------- |");
                                   printf("\n\t\t\t\t\t\t\t\t\t | |");
                                   printf("\n\t\t\t\t\t\t\t\t\t
===============================================\n\n");
                                   printf("\n\t\t\t\t\t ");
                                   printf("\n\t\t\t ");
                                   printf("\n\t\t\t\t\t\t\t\t\t Enter Employee No to Delete from File :-");
                                   scanf("%d",&empno);
                                   printf("\n\t\t\t\t\t\t\t\t\t
=========================================================\n");
                                   ft=fopen("temp.dat","wb+");
                                   while(fread(&emp,recsize,1,fp)==1)
```

```c
                                {
                                        if(empno!=emp.eno)
                                        {
                                                fwrite(&emp,recsize,1,ft);
                                        }
                                }
                                        fclose(fp);
                                        fclose(ft);
                                        remove("employlog.dat");
                                        rename("temp.dat","employlog.dat");
                                        fp=fopen("employlog.dat","rb+");
                                        printf("\n\n\t\t\t\t\t\t\t\t\t Employee Record Deleted......\n");
                                        printf("\n\t\t\t\t\t\t\t\t\t
==========================================================\n");
                                        printf("\n\t\t\t\t\t\t\t\t\t Press any key to exit......");
                                        getch();
                                        system("cls");
                                        break;


                        case '6' :
                                        fclose(fp);
                                        exit(0);
                }

        }


        getch();

        break;
        }

        else

        {
                system("cls");

                printf("\n\n\n ");
                printf("\n\t\t\t\t\t\t\t\t\t===============================================");
                printf("\n\t\t\t\t\t\t\t\t\t|                              |");
                printf("\n\t\t\t\t\t\t\t\t\t|      ----------------------            |");
                printf("\n\t\t\t\t\t\t\t\t\t|          ROYAL GROUP LTD. INDIA          |");
                printf("\n\t\t\t\t\t\t\t\t\t|      ----------------------            |");
                printf("\n\t\t\t\t\t\t\t\t\t|                              |");
                printf("\n\t\t\t\t\t\t\t\t\t===============================================\n\n");
                printf("\n\n\n\t   ");
                printf("\n\n\n\t\t\t\t\t\t\t      SORRY ...!!!  INVALID USERNAME AND PASSWORD...!!!");
                a++;

                printf("\n\n\n\n\n\n\t\t\t\t\t\t\t      Please Try Again...!!!");
                getch();
                system("cls");

        }
}
        while(a<=2);
        if (a>2)
        {
                printf("\n\n\n\t\t\t\t\t\t\t      Sorry you have entered the wrong Username and Password for four times...!!!");

                getch();

                }

}
```

# Output

## Login Page

```
==================================================
|                                                |
|           ----------------------------         |
|              ROYAL GROUP LTD. INDIA             |
|           ----------------------------         |
|                                                |
==================================================


===================  USER LOGIN  ===================

        ENTER USERNAME :-   admin

        ENTER PASSWORD :-   *********_      ⅂
```

## ...Login Successful

```
            WELL-COME TO OUR SYSTEM  ...###...  YOUR LOGIN IS SUCCESSFUL


Press any key to Continue ...
```

## If login incorrect...

```
        SORRY ...!!!... INVALID USERNAME AND PASSWORD...!!!




                    Please Try Again...!!!
```

## Task Menu

```
=================================================
|                                               |
|          ------------------------------        |
|               ROYAL GROUP LTD. INDIA           |
|          ------------------------------        |
|                                               |
=================================================



                 Employee Record Database

        ================================

              1. Add Record
              2. Display Records
              3. Search Records
              4. Modify Records
              5. Delete Records
              6. Exit


        ==============================
```

Enter your Task :- _

Choose any task from 1 to 6...

## 1. Add Records to Database

```
================================================
|                                              |
|         ------------------------------        |
|            ROYAL GROUP LTD. INDIA            |
|         ------------------------------        |
|                                              |
================================================


              Employee Record Database

        ================================

                1. Add Record
                2. Display Records
                3. Search Records
                4. Modify Records
                5. Delete Records
                6. Exit


        ================================

Enter your Task :- _  1
```

```
====================================================
|                                                  |
|          ------------------------------          |
|             ROYAL GROUP LTD. INDIA              |
|          ------------------------------          |
|                                                  |
====================================================


        --------------------------------------------
               Add Empolyee Record to Database
        --------------------------------------------

 ==================================
  Enter Employee No :- 112

  Enter Employee Name :-  Mahi

  Enter Employee Age :- 29

  Enter Employee Department :-  Legal

  Enter Net Salary :- 58000

  Enter Allowances :- 6500

  Enter Deductions :- 3400

  Employee Salary :-      61100.00
 ==================================



              Add another Record ( Y / N ) ......
```

## 2.    Display All Records from Database

```
==================================================
|                                                |
|         -----------------------------          |
|             ROYAL GROUP LTD. INDIA             |
|         -----------------------------          |
|                                                |
==================================================



                 Employee Record Database

        ===============================

                1. Add Record
                2. Display Records
                3. Search Records
                4. Modify Records
                5. Delete Records
                6. Exit


        ===============================


    Enter your Task :- _  2
```

```
                -------------------------------------------
                Avilable Employee Information in Database
                -------------------------------------------


===================================================================================================

Employee No.    Employee Name    Employee Age    Employee Dept.    Net salary    Allowence    Deductions    Pay Salary

===================================================================================================

    101             Tej             33              HR            65000.00 /-    5300.00 /-    4500.00 /-    65800.00 /-

    102             Raj             30              Acnt          62000.00 /-    6500.00 /-    4500.00 /-    64000.00 /-

    103             Dev             28              Sec           65000.00 /-    4500.00 /-    3500.00 /-    66000.00 /-

    104             Abhi            29              Sec           59000.00 /-    6800.00 /-    3800.00 /-    62000.00 /-

    105             Bob             29              Sec           59000.00 /-    3500.00 /-    2200.00 /-    60300.00 /-

    106             Sunny           27              Tech          58000.00 /-    4500.00 /-    2900.00 /-    59600.00 /-

    107             Max             29              Tech          61000.00 /-    3500.00 /-    5500.00 /-    59000.00 /-

    108             Ben             30              Acnt          65000.00 /-    5600.00 /-    2900.00 /-    67700.00 /-

    109             Adi             29              Tech          59000.00 /-    4500.00 /-    3200.00 /-    60300.00 /-

    110             Rocky           28              Tech          62000.00 /-    3500.00 /-    4200.00 /-    61300.00 /-

    111             Monty           29              Tech          59000.00 /-    4500.00 /-    2500.00 /-    61000.00 /-

    112             Mahi            29              Legal         58000.00 /-    6500.00 /-    3400.00 /-    61100.00 /-


===================================================================================================


                                    ===================================
                                    Total Pay Salary :-   748100.00 /-

                                    ===================================


    Press any key to Continue to Menu ...... _
```

## 3.    Search Records from Database

```
==================================================
|                                                |
|         ------------------------------         |
|            ROYAL GROUP LTD. INDIA              |
|         ------------------------------         |
|                                                |
==================================================



               Employee Record Database

          ==================================

                 1. Add Record
                 2. Display Records
                 3. Search Records
                 4. Modify Records
                 5. Delete Records
                 6. Exit


          ==================================


  Enter your Task :- ▄   3
```

```
==================================================
|                                                |
|         ------------------------------         |
|            ROYAL GROUP LTD. INDIA              |
|         ------------------------------         |
|                                                |
==================================================



  Enter Employee No to Search in File :-109   ┐
```

```
==================================================
|                                                |
|         ------------------------------         |
|            ROYAL GROUP LTD. INDIA              |
|         ------------------------------         |
|                                                |
==================================================



          Employee Data Found for :-  109

       ========================================

          Employee No :-              109
          Employee Name :-            Adi
          Employee Age :-             29 Ys
          Employee Dept. :-           Tech
          Employee Net Salary :-      59000.00 /-
          Employee Allowances :-      4500.00 /-
          Employee Deductions :-      3200.00 /-
          Employee Pay Salary :-      60300.00 /-


       ========================================


  Press any key to continue Menu .....      ┐
```

## 4.    Modify Records from Database

```
================================================
|                                              |
|      ------------------------------          |
|           ROYAL GROUP LTD. INDIA             |
|      ------------------------------          |
|                                              |
================================================


             Employee Record Database

        ================================

              1. Add Record
              2. Display Records
              3. Search Records
              4. Modify Records
              5. Delete Records
              6. Exit


        ================================

Enter your Task :-  _   4
```

```
=================================================
|                                               |
|      ----------------------------             |
|          ROYAL GROUP LTD. INDIA               |
|      ----------------------------             |
|                                               |
=================================================



         Modify Employee Record in Database
        ==================================
 Enter Employee No. to modify record in file :-105_
```

**Enter new details...**

```
=================================================
|                                               |
|       ------------------------------          |
|           ROYAL GROUP LTD. INDIA              |
|       ------------------------------          |
|                                               |
|                                               |
=================================================



        Modify Employee Record in Database for Employee  105

    ===============================================================
                    Enter New Employee Details

        ===========================

                Enter New Employee No to Modify :- 105

                Enter New Employee Name :-  Lucky

                Enter New Employee Age :-  29

                Enter New Employee Department :-  Sec

                Enter New Net Salary :- 58000

                Enter New Allowances :- 6800

                Enter New Deductions :- 4300

                Employee Pay Salary :-         60500.00 /-


            ===========================
```

**Previous details...**

```
==============================================
|                                            |
|      ----------------------------          |
|          ROYAL GROUP LTD. INDIA            |
|      ----------------------------          |
|                                            |
==============================================


          Employee Data Found for :-   105

     ==========================================

          Employee No :-             105
          Employee Name :-           Bob
          Employee Age :-            29 Ys
          Employee Dept. :-          Sec
          Employee Net Salary :-     59000.00 /-
          Employee Allowances :-     3500.00 /-
          Employee Deductions :-     2200.00 /-
          Employee Pay Salary :-     60300.00 /-

     ==========================================


Press any key to continue Menu ..... ▄        ⌐
```

**New details...**

```
==============================================
|                                            |
|      ----------------------------          |
|          ROYAL GROUP LTD. INDIA            |
|      ----------------------------          |
|                                            |
==============================================


          Employee Data Found for :-   105

     ==========================================

          Employee No :-             105
          Employee Name :-           Lucky
          Employee Age :-            29 Ys
          Employee Dept. :-          Sec
          Employee Net Salary :-     59000.00 /-
          Employee Allowances :-     4500.00 /-
          Employee Deductions :-     3500.00 /-
          Employee Pay Salary :-     60000.00 /-

     ==========================================


Press any key to continue Menu ..... ▄        ⌐
```

## 5. Delete Records from Database

```
================================================
|                                              |
|        ------------------------------        |
|            ROYAL GROUP LTD. INDIA            |
|        ------------------------------        |
|                                              |
================================================


                Employee Record Database

        ================================

                1.  Add Record
                2.  Display Records
                3.  Search Records
                4.  Modify Records
                5.  Delete Records
                6.  Exit

        ================================

Enter your Task :- ▄  5
```

```
==================================================
|                                                |
|                                                |
|        --------------------------------        |
|        ROYAL GROUP LTD. INDIA                  |
|        --------------------------------        |
|                                                |
|                                                |
==================================================



Enter Employee No to Delete from File :-113    ⌐
```

```
================================================
|                                              |
|        ------------------------------        |
|            ROYAL GROUP LTD. INDIA            |
|        ------------------------------        |
|                                              |
================================================


        Enter Employee No to Delete from File :-113

    ============================================================

                Employee Record Deleted......

    ============================================================

            Press any key to exit......■          ⌐
```

## Employee No. 113 record available ....

| 111 | Monty | 29 | Tech  | 59000.00 /- | 4500.00 /- | 2500.00 /- | 61000.00 /- |
|-----|-------|----|-------|-------------|------------|------------|-------------|
| 112 | Mahi  | 29 | Legal | 58000.00 /- | 6500.00 /- | 3400.00 /- | 61100.00 /- |
| 113 | Rod   | 45 | Dr    | 68000.00 /- | 4800.00 /- | 6300.00 /- | 66500.00 /- |

```
                                    ==================================
                                    Total Pay Salary :-   814300.00 /-
                                    ==================================

    Press any key to Continue to Menu ......
```

## Employee No. 113 record deleted ....

| 109 | Adi   | 29 | Tech  |    | 59000.00 /- | 4500.00 /- | 3200.00 /- | 60300.00 /- |
|-----|-------|----|-------|----|-------------|------------|------------|-------------|
| 110 | Rocky | 28 | Tech  |    | 62000.00 /- | 3500.00 /- | 4200.00 /- | 61300.00 /- |
| 111 | Monty | 29 | Tech  |    | 59000.00 /- | 4500.00 /- | 2500.00 /- | 61000.00 /- |
| 112 | Mahi  | 29 | Legal | >> | 58000.00 /- | 6500.00 /- | 3400.00 /- | 61100.00 /- |

```
                                    ==================================
                                    Total Pay Salary :-   748100.00 /-
                                    ==================================
```

## 6.    Exit from Program

```
=================================================
|                                               |
|           ------------------------------       |
|              ROYAL GROUP LTD. INDIA            |
|           ------------------------------       |
|                                               |
=================================================


                 Employee Record Database

         ================================

                  1. Add Record
                  2. Display Records
                  3. Search Records
                  4. Modify Records
                  5. Delete Records
                  6. Exit


         ================================

Enter your Task :- _ 6 ⌐
```

## Program execution exits....

# Conclusion

   C is actually surprisingly large topics, who would have thought? If you've made it this far, though, you're more than well on your way to back-end development magic. You should be significantly more comfortable breaking down a program into its component pieces and then coding them with C. You have the tools necessary to identify an effective visual layout and then bring it to fruition.

   There is still plenty of ways you can make your workflow better or improve your knowledge of best practices (so don't stop learning!), but you've got everything you need to build beautiful program.

# Bibliography

**Web-Site References        : -**

    1)    *https://stackoverflow.com/*


    2)    *https://geeksforgeeks.org/*


**Under the Guidance of    : -**

    1) Prof. Dr. S. M. Patil Mam