

# **GOVT DEGREE COLLEGE**

**KALWAKURTHY, NAGARKURNOOL(DIST).**

## **DEPARTMENT OF COMPUTER SCIENCE**

**2020-2021**

***STUDENT STUDY PROJECT***

**TOPIC:**

**Project in C Telecom Billing System**

**Name of the Supervisor**

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# **DECLARATION**

We are declare that the project title **“PROJECT IN C TELECOM BILLING”** is original In nature and is a Bonofide work carried out by me. The project is submitted in partial fulfillment of the requirement for award of Degree of Bachelor of science (Department of COMPUTER SCIENCE). The report has been submitted either in part or full for any other degree or diploma earlier to this University or any other University.

## **Name & Address of Students**

1. K. JYOTHI - B.SC- II YEAR
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# Project in C Telecom Billing System

With this **mini project in C Telecom Billing System**, you can perform and manage billing operations like they do in Telecom companies. Here, you can add records with name, [phone number](#) and the amount of payment. You can view, modify, search and delete existing records.

You can also make payment by providing your phone number instead of name. All data added or modified are recorded in a file. This project will teach you how to add, list, edit, search and delete records using file handling.

This mini project is a console application without graphics. It is compiled in Code::Blocks IDE using GCC compiler. So, compiling the source codes in other platforms or compiler such as Turbo C will produce errors.

## Features of Telecom Billing System in C:

Simple functions have been used in co-ordination with data structure and file handling. As the project is relatively short, you can thoroughly go through the whole source code; this will help you understand data structure and file handling if you know their fundamentals. You'll also get the basic idea regarding "how to develop a [C mini project](#)" in a very simple manner.

The functions and features used in this project are listed below:

- Add new records: add new data into file with name, phone number and amount to be paid
- View list of records – lists all telephone billing records (as shown in screenshot 3)

- Modify records – edit the added records; name, phone number and/or amount of payment can be edited
- View payment – shows amount to be paid
- Search records – search for added/updated records in file
- Delete records – removes data permanently from file

This project is limited to the functions aforementioned. You can add new features as you like to make this project a better one.

Source code:

```
#include<stdio.h>
#include<conio.h>
#include<ctype.h>
#include<windows.h>
#include<stdlib.h>
struct subscriber
{
char phonenumber[20];
char name[50];
float amount;
};
void addrecords();
void listrecords();
```



```
printf("\n S : for searching records.");  
printf("\n D : for deleting records.\n E : for exit\n");  
choice=getche();  
choice=toupper(choice);  
switch(choice)  
{  
    case 'P':  
        payment();break;  
    case 'A':  
        addrecords();break;  
    case 'L':  
        listrecords();break;  
    case 'M':  
        modifyrecords();break;  
    case 'S':  
        searchrecords();break;  
    case 'D':  
        deleterecords();break;  
    case 'E':  
        system("cls");  
        printf("\n\n\t\t\t\t\tTHANK YOU");  
        printf("\n\n\n\n\n:\n\tFOR USING OUR SERVICE");  
        Sleep(2000);  
        exit(0);  
        break;
```

```
        default:
            system("cls");
            printf("Incorrect Input");
            printf("\nAny key to continue");
            getch();
    }
}
}
void addrecords()
{
    FILE *f;
    char test;
    f=fopen("c:/file.ojs","ab+");
    if(f==0)
    { f=fopen("c:/file.ojs","wb+");
        system("cls");
        printf("please wait while we configure your computer");
        printf("/npress any key to continue");
        getch();
    }
    while(1)
    {
        system("cls");
        printf("\n Enter phone number:");
        scanf("%s",&s.phonenumber);
    }
}
```

```
        printf("\n Enter name:");
        fflush(stdin);
        scanf("%[^\n]",&s.name);
        printf("\n Enter amount:");
        scanf("%f",&s.amount);
        fwrite(&s,sizeof(s),1,f);
        fflush(stdin);
        system("cls");
        printf("1 record successfully added");
        printf("\n Press esc key to exit, any other key to add other record:");
        test=getche();
        if(test==27)
            break;
    }
    fclose(f);
}
void listrecords()
{
    FILE *f;
    int i;
    if((f=fopen("c:/file.ojs","rb"))==NULL)
        exit(0);
    system("cls");
    printf("Phone Number\t\tUser Name\t\tAmount\n");
    for(i=0;i<79;i++)
```



```
        printf("-");

while(fread(&s,sizeof(s),1,f)==1)
{
    printf("\n%-10s\t\t%-20s\t\tRs. %.2f /-",s.phonenumber,s.name,s.amount);
}

printf("\n");

for(i=0;i<79;i++)

    printf("-");

fclose(f);

getch();

}

void deleterecords()

{

    FILE *f,*t;

    int i=1;

    char phonenumber[20];

    if((t=fopen("c:/temp.ojs","w+"))==NULL)

        exit(0);

    if((f=fopen("c:/file.ojs","rb"))==NULL)

        exit(0);

    system("cls");

    printf("Enter the phone number to be deleted from the Database");

    fflush(stdin);

    scanf("%s",&phonenumber);
```

```
while(fread(&s,sizeof(s),1,f)==1)
{
    if(strcmp(s.phonenumber,phonenumber)==0)
    {
        i=0;
        continue;
    }
    else
        fwrite(&s,sizeof(s),1,t);
}
if(i==1)
{
    system("cls");
    printf("Phone number \"%s\" not found",phonenumber);
    remove("c:/file.ojs");
    rename("c:/temp.ojs","c:/file.ojs");
    getch();
    fclose(f);
    fclose(t);
    main();
}
remove("c:/file.ojs");
rename("c:/temp.ojs","c:/file.ojs");
system("cls");
printf("The Number %s Successfully Deleted!!!!",phonenumber);
fclose(f);
```

```

        fclose(t);

        getch();
    }

void searchrecords()
{
    FILE *f;

    char phonenumber[20];

    int flag=1;

    f=fopen("c:/file.ojs","rb+");

    if(f==0)
        exit(0);

    fflush(stdin);

    system("cls");

    printf("Enter Phone Number to search in our database");

    scanf("%s", phonenumber);

    while(fread(&s,sizeof(s),1,f)==1)
    {
        if(strcmp(s.phonenumber,phonenumber)==0)
        {
            system("cls");

            printf(" Record Found ");

            printf("\n\nPhonenumber: %s\nName: %s\nAmount:
Rs.%0.2f\n",s.phonenumber,s.name,s.amount);

            flag=0;

            break;
        }

        else if(flag==1)

```

```

        {
            system("cls");

            printf("Requested Phone Number Not found in our database");

        }

    }

    getch();

    fclose(f);
}

void modifyrecords()
{
    FILE *f;

    char phonenumber[20];

    long int size=sizeof(s);

    if((f=fopen("c:/file.ojs","rb+"))==NULL)
        exit(0);

    system("cls");

    printf("Enter phone number of the subscriber to modify:");

    scanf("%[^\\n]",phonenumber);

    fflush(stdin);

    while(fread(&s,sizeof(s),1,f)==1)
    {

        if(strcmp(s.phonenumber,phonenumber)==0)
        {

            system("cls");

            printf("\\n Enter phone number:");

            scanf("%s",&s.phonenumber);

```

```

                printf("\n Enter name: ");

                fflush(stdin);

                scanf("%[^\n]",&s.name);

                printf("\n Enter amount: ");

                scanf("%f",&s.amount);

                fseek(f,-size,SEEK_CUR);

                fwrite(&s,sizeof(s),1,f);

                break;
        }
    }
    fclose(f);
}

void payment()
{
    FILE *f;

    char phonenumber[20];

    long int size=sizeof(s);

    float amt;

    int i;

    if((f=fopen("c:/file.ojs","rb+"))==NULL)

        exit(0);

    system("cls");

    printf("Enter phone number of the subscriber for payment");

    scanf("%[^\n]",phonenumber);

    fflush(stdin);

```

```
while(fread(&s,sizeof(s),1,f)==1)
{
    if(strcmp(s.phonenumber,phonenumber)==0)
    {
        system("cls");

        printf("\n Phone No.: %s",s.phonenumber);

        printf("\n Name: %s",s.name);

        printf("\n Current amount: %f",s.amount);

        printf("\n");

        for(i=0;i<79;i++)
            printf("-");

        printf("\n\nEnter amount of payment :");

        fflush(stdin);

        scanf(" %f",&amt);

        s.amount=s.amount-amt;

        fseek(f,-size,SEEK_CUR);

        fwrite(&s,sizeof(s),1,f);

        break;
    }
}

system("cls");

printf("THANK YOU %s FOR YOUR TIMELY PAYMENTS",s.name);

getch();

fclose(f);
}
```

Output screens:

```
*****
-----WELCOME TO THE TELECOM BILLING MANAGEMENT SYSTEM-----
*****
```

```
Enter
A : for adding new records.
L : for list of records
M : for modifying records.
P : for payment
S : for searching records.
D : for deleting records.
E : for exit
```

Phone Number	User Name	Amount
9845369845	Sam	Rs. 450.00 /-
9856435643	Hari	Rs. 230.00 /-