



Green University of Bangladesh
Department of Computer Science and Engineering (CSE)
Faculty of Sciences and Engineering
Semester: (Summer, Year: 2021), B.Sc. in CSE (Day)

Course Title: Structured Programming Lab
Course Code: CSE 104 Section: DD

Lab Project Name: Telecom Billing System

Student Details

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[For Teachers use only: Don't Write Anything inside this box]

Lab Project Status

Marks:

Signature:

Comments:

Date:

Telecom Billing System

Chapter 1

Introduction:

Telephone billing system project is to present the requirement of the Computerization of Billing System. The project thus calculates the telephone bills automatically. It does almost every work which is related to automatic telephone billing connection system via- new connection , customer record modification, viewing customer records & all works related to rate of bills, meter readings in addition to bill calculation and bill generation. “Telephone Billing System” is developed as per seeing the increasing requirement to speed up the work and incorporate a new work culture. Thus a new software has been proposed to reduce manual work, improving work efficiency, saving time and to provide greater flexibility and user-friendliness as the system previously followed was totally manual one with lots of errors. Since it is directly associated with the database, there is very little maintainability problem with this tool. Since there is very limited usage of separate forms, this tool is very much portable. This tool uses several canvases on the same form. This tool is very much flexible for future enhancements. The main objective while implementing the project Telephone Billing System were to minimize the work and at the same time increase the speed of the work done and also the information retrieval will become easy. In this project the maintenance of database as well as overall project will become easy. The purpose of the project is to develop a system which is user friendly, easy to use maintain and satisfies all the requirements of the user of the specified system. Security measure will be adopted, by maintaining the login of username and the password. Data redundancy will be greatly reduced because this new system is built using Visual Basic 6.0 as front-end. It entails looking into duplication of efforts bottlenecks and inefficient existing procedures. 1

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Design Goals/Objective

This project will serve the following objectives

- 1 Add and maintain records of available products.**
- 2 Add and maintain customer details.**

- 3 Add and maintain description of new products.
- 4 Add and maintain new entered category of products.
- 5 Provides economic/financial reports to the owner monthly or weekly and yearly.
- 6 Provides a convenient solution of billing pattern.
- 7 Make an easy to use environment for users and customers.

Chapter 2

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Implementation of the Project

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Implementations:

```

1. /**
2. MD SHAJJID HOSSAIN
3. ID 213902074
4. */
5. #include<stdio.h>
6. #include<conio.h>
7. #include<ctype.h>
8. #include<windows.h>
9. #include<stdlib.h>
10. struct USER
11. {
12.     char phonenumber[20];
13.     char name[50];
14.     float amount;
15. } s;
16.
17.
18. int main()
19. {
20.     int password;
21.     int phonenumber;
22.     char choice;
23.
24.
25.
26.     system("cls");
27.
28.
29.     printf("\n\n\n\n\n\n\n\n\n\n\t*****
*****");
30.     printf("\n\t\t-----WELCOME TO THE TELECOM BILLING MANAGEMENT

```

SYSTEM---");

```
printf("\n\t\t*****\n\t\t*****");
```

```
printf("\n\n\t Enter the user Press Any : ");
Sleep(2000);
getch();
system("cls");
while (1)
{
    system("cls");
    printf("\n Enter\n A : for adding new records.\n L : for list of records");
    printf("\n M : for modifying records.\n P : for payment");
    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 'A':
            addrecords();
            break;
        case 'L':
            listrecords();
            break;
        case 'P':
            payment();
            break;
        case 'M':
            modifyrecords();
            break;
        case 'S':
            searchrecords();
            break;
        case 'D':
            deleterecords();
            break;
        case 'E':
            system("cls");
            printf("\n\n\t\t\t\t\t THANK YOU");
            printf("\n\n\n\n\n\t\t\t\t\t FOR USING OUR SERVICE");
            Sleep(2000);
            exit(0);
            break;
        default:
            system("cls");
            printf("Incorrect Input");
            printf("\nAny key to continue");
```

```

76.     getch();
77. }
78. }
79. }
80. void addrecords()
81. {
82.     FILE *f;
83.     char test;
84.     f=fopen("c:/file.ojs", "ab+");
85.     if(f==0)
86.     {
87.         f=fopen("c:/file.ojs", "wb+");
88.         system("cls");
89.         printf("please wait while we configure your computer");
90.         printf("/npress any key to continue");
91.         getch();
92.     }
93.     while(1)
94.     {
95.         system("cls");
96.         printf("\n Enter phone number:");
97.         scanf("%s",&s.phonenumber);
98.         printf("\n Enter name:");
99.         fflush(stdin);
100.        scanf("%o[^\\n]",&s.name);
101.        printf("\n Enter amount:");
102.        scanf("%f",&s.amount);
103.        fwrite(&s,sizeof(s),1,f);
104.        fflush(stdin);
105.        system("cls");
106.        printf("1 record successfully added");
107.        printf("\n Press esc key to exit, any other key to add other record:");
108.        test=getche();
109.        if(test==27)
110.            break;
111.    }
112.    fclose(f);
113. }
114. void listrecords()
115. {
116.     FILE *f;
117.     int i;
118.     if((f=fopen("c:/file.ojs", "rb"))==NULL)
119.         exit(0);
120.     system("cls");
121.     printf("Phone Number\t\tUser Name\t\tAmount\n");
122.     for(i=0; i<79; i++)
123.         printf("-");
124.     while(fread(&s,sizeof(s),1,f)==1)

```

```

125.     {
126.         printf("\n%-10s\t\t%-20s\t\tTK. %.2f /-",s.phonenumber,s.name,s.amount);
127.     }
128.     printf("\n");
129.     for(i=0; i<79; i++)
130.         printf("-");
131.
132.     fclose(f);
133.     getch();
134. }
135. void deleterecords()
136. {
137.     FILE *f,*t;
138.     int i=1;
139.     char phononenumber[20];
140.     if((t=fopen("c:/temp.ojs","w+"))==NULL)
141.         exit(0);
142.     if((f=fopen("c:/file.ojs","rb"))==NULL)
143.         exit(0);
144.     system("cls");
145.     printf("Enter the phone number to be deleted from the Database");
146.     fflush(stdin);
147.     scanf("%[^\\n]",phononenumber);
148.     while(fread(&s,sizeof(s),1,f)==1)
149.     {
150.         if(strcmp(s.phonenumber,phononenumber)==0)
151.         {
152.             i=0;
153.             continue;
154.
155.         }
156.         else
157.             fwrite(&s,sizeof(s),1,t);
158.     }
159.     if(i==1)
160.     {
161.         system("cls");
162.         printf("Phone number \"%s\" not found",phononenumber);
163.         remove("c:/file.ojs");
164.         rename("c:/temp.ojs","c:/file.ojs");
165.         getch();
166.         fclose(f);
167.         fclose(t);
168.         main();
169.     }
170.     remove("c:/file.ojs");
171.     rename("c:/temp.ojs","c:/file.ojs");
172.     system("cls");
173.     printf("The Number %s Successfully Deleted!!!!",phononenumber);

```

```

174.    fclose(f);
175.    fclose(t);
176.    getch();
177. }
178. void searchrecords()
179. {
180.     FILE *f;
181.     char phonenumber[20];
182.     int flag=1;
183.     f=fopen("c:/file.ojs","rb+");
184.     if(f==0)
185.         exit(0);
186.     fflush(stdin);
187.     system("cls");
188.     printf("Enter Phone Number to search in our database");
189.     scanf("%s", phonenumber);
190.     while(fread(&s,sizeof(s),1,f)==1)
191.     {
192.         if(strcmp(s.phonenumber,phonenumber)==0)
193.         {
194.             system("cls");
195.             printf(" Record Found ");
196.             printf("\n\nPhonenumber: %s\nName: %s\nAmount:
TK.%0.2f\n",s.phonenumber,s.name,s.amount);
197.             flag=0;
198.             break;
199.         }
200.         else if(flag==1)
201.         {
202.             system("cls");
203.             printf("Requested Phone Number Not found in our database");
204.         }
205.     }
206.     getch();
207.     fclose(f);
208. }
209. void modifyrecords()
210. {
211.     FILE *f;
212.     char phonenumber[20];
213.     long int size=sizeof(s);
214.     if((f=fopen("c:/file.ojs","rb+"))==NULL)
215.         exit(0);
216.     system("cls");
217.     printf("Enter phone number of the subscriber to modify:");
218.     scanf("%[^\\n]",phonenumber);
219.     fflush(stdin);
220.     while(fread(&s,sizeof(s),1,f)==1)
221.     {

```

```

222.     if(strcmp(s.phonenumber,phonenumber)==0)
223.     {
224.         system("cls");
225.         printf("\n Enter phone number:");
226.         scanf("%s",&s.phonenumber);
227.         printf("\n Enter name: ");
228.         fflush(stdin);
229.         scanf("%o[^\n]",&s.name);
230.         printf("\n Enter amount: ");
231.         scanf("%f",&s.amount);
232.         fseek(f,-size,SEEK_CUR);
233.         fwrite(&s,sizeof(s),1,f);
234.         break;
235.     }
236. }
237. fclose(f);
238. }
239. void payment()
240. {
241.     FILE *f;
242.     char phonenumber[20];
243.     long int size=sizeof(s);
244.     float amt;
245.     int i;
246.     if((f=fopen("c:/file.ojs","rb+"))==NULL)
247.         exit(0);
248.     system("cls");
249.     printf("Enter phone number of the  USER for payment : ");
250.     scanf("%o[^\n]",phonenumber);
251.     fflush(stdin);
252.     while(fread(&s,sizeof(s),1,f)==1)
253.     {
254.         if(strcmp(s.phonenumber,phonenumber)==0)
255.         {
256.             system("cls");
257.             printf("\n Phone No.: %s",s.phonenumber);
258.             printf("\n Name: %s",s.name);
259.             printf("\n Current amount: %f",s.amount);
260.             printf("\n");
261.             for(i=0; i<79; i++)
262.                 printf("-");
263.             printf("\n\nEnter amount of payment :");
264.             fflush(stdin);
265.             scanf(" %f",&amt);
266.             s.amount=s.amount-amt;
267.             fseek(f,-size,SEEK_CUR);
268.             fwrite(&s,sizeof(s),1,f);
269.             break;
270.         }

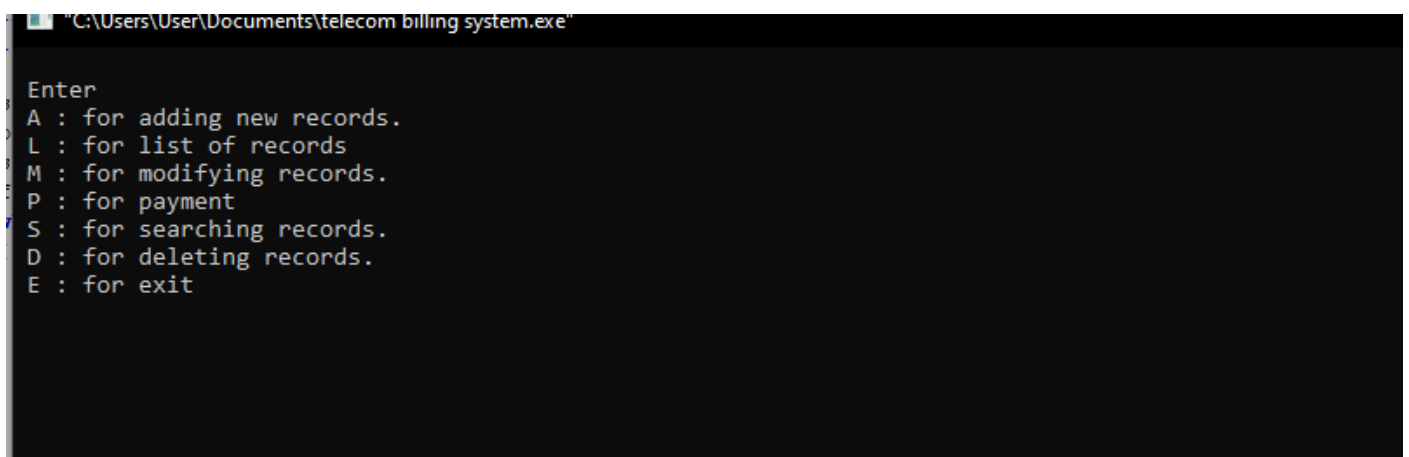
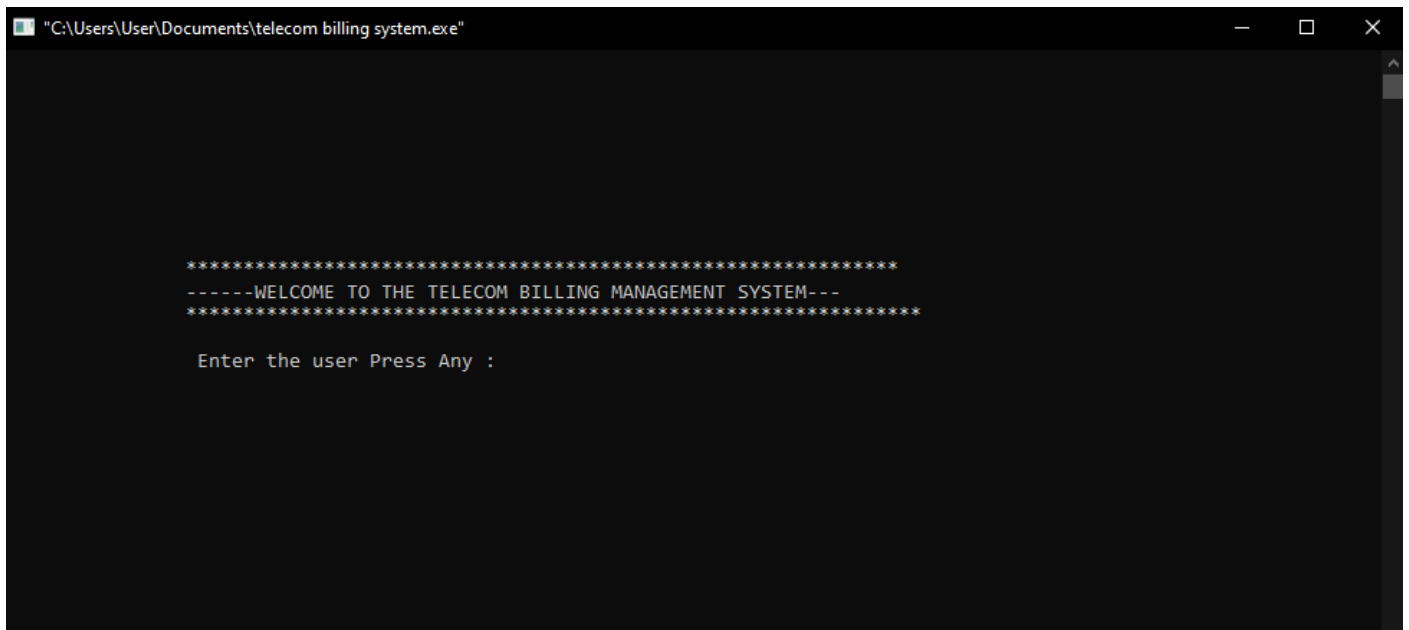
```



```
271.     }
272.     system("cls");
273.     printf("THANK YOU %s FOR YOUR TIMELY PAYMENTS",s.name);
274.     getch();
275.     fclose(f);
276. }
277.
278.
```

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Screenshots



```
"C:\Users\User\Documents\telecom billing system.exe"
1 record successfully added
Press esc key to exit, any other key to add other record:
```

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```
04 Sample Project Report ☆ 📁 ☁
it "C:\Users\User\Documents\telecom billing system.exe"
Phone Number      User Name      Amount
-----
01761453698       sajid          TK. 0.00 /-
01761453698       sajid hassain  TK. 5000.00 /-
01761453698       sajid          TK. 34.00 /-
01761453698       md sajid       TK. 30.00 /-
019238901         JFJAM         TK. 90.00 /-
JLDJF            JDJ           TK. 0.00 /-
KKKK             TK. 0.00 /-
JJJ              TK. 0.00 /-
JJH              TK. 0.00 /-
01761453698       sajid          TK. 500.00 /-
jiojciojioaj     asdja          TK. 500.00 /-
-----
```

```
"C:\Users\User\Documents\telecom billing system.exe"
Enter phone number of the USER for payment : 01761453698
C
Fil
```

```
"C:\Users\User\Documents\telecom billing system.exe"

Phone No.: 01761453698
Name: sajid
Current amount: 0.000000
-----
Enter amount of payment :
```

```
"C:\Users\User\Documents\telecom billing system.exe"

THANK YOU sajid FOR YOUR TIMELY PAYMENTS
```

```
"C:\Users\User\Documents\telecom billing system.exe"

The Number 01761453698 Successfully Deleted!!!!_
```

Chapter 3

Conclusion

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Learning Outcome:Based on the computer program source code and output, customers can now

have a mini statement of bills that contains the customer name, town name, town code, duration of calls and amount immediately after calls. The implication of this research is that it could guarantee more security in GSM calls and also help to strengthen their billing system output. Through this project we got acquainted with how we can develop a bills of customers report in c program these type of projects also fulfill many of the given course outcomes as per the given syllabus of the course

Future Scope:

Basic billing system consists of following steps in sequential order:

1. Collection of call data
2. Storage of call data into customer database
3. Calculation of call charges
4. Additional charges are also included
5. Processing of bills
6. Generation of invoice
7. Mailing of invoices to respective customer

References

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