

# **EEL ACTIVITY 3: FITNESS MEMBERSHIP BILL GENERATOR**

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## **1) RESEARCH**

Fitness membership billing systems handle recurring payments for gym or fitness centre customers, combining membership plans, add-ons (classes, personal training), and usage-based charges (e.g. special classes or facility use). Key points and trends:

- 1) Gyms commonly use automated recurring billing (monthly, quarterly, annual) to reduce manual work, send invoices/reminders, and manage renewals or freezes.
- 2) Modern systems may also charge one-time fees, extra services (e.g. merchandise, guest passes), or prorated charges when a customer joins mid-cycle.
- 3) Features such as contract management, freeze/cancellation options, payment retries, and real-time reporting are part of robust gym billing software.
- 4) From a behavioral health perspective, having a gym membership is strongly associated with higher physical activity levels and improved cardiovascular outcomes. A study showed that health club members were 14 times more aerobically active than non-members.

5) Recent research also emphasizes that exercise triggers deep biological and systemic change — molecular, inflammatory, metabolic — reinforcing the health value side of fitness services.

## **2) ANALYSIS**

1) The fitness industry increasingly relies on membership models, where customers pay for access to gyms, wellness centres, or group classes. Traditional billing methods (manual registers or spreadsheets) often create problems like errors in membership tracking, difficulties in applying discounts, and confusion in adding extra services.

2) A fitness membership billing system addresses these challenges by storing essential customer information (ID, name, contact, membership type), calculating charges based on plan duration (monthly, quarterly, annual), and including add-ons such as personal training or diet plans. It also allows applying discounts for long-term or group memberships.

3) The system processes these inputs to generate a clear, accurate bill that shows membership details, additional services, discounts, and the total payable amount. Such automation ensures efficiency for gym staff and transparency for customers, while also making it easier to customize offerings as fitness centres expand their services.

## **3) IDEATE**

1) The project's main idea is to create a simple yet creative billing system for fitness centres where customer information, membership plans, and add-on services are recorded, processed, and billed automatically. Instead of a plain invoice, the bill can

also display motivational elements like fitness tips, calories burned estimation, or loyalty rewards, making it more engaging.

2) It will use structures in C to store customer info (ID, Name, Contact, Type) and apply conditional logic to assign membership charges (monthly/quarterly/annual).

3) It will also add options for extra services like personal trainer, yoga, or diet plans and calculate discounts for annual/corporate memberships.

4) So the purpose of this project is to generate automate gym membership billing, ensuring accuracy and transparency while reducing manual effort. It also aims to make the bill engaging by adding creative, health-focused elements for customer motivation.

5) Finally it will print a well-formatted bill with customer details, services, discounts, and total payable amount and provide customers with a professional bill that feels personal and motivating.

6) References I used for collecting all this info

[https://en.wikipedia.org/wiki/Fitness\\_culture](https://en.wikipedia.org/wiki/Fitness_culture)

<https://www.sciencedaily.com/releases/2017/01/170123111536.htm>

<https://dealhub.io/glossary/automated-billing/>

<https://stripe.com/in/resources/more/automated-billing-for-gyms-101-a-guide-for-businesses>

## **4) BUILD**

```
#include <stdio.h>
```

```
void main() {
```

```
int  
CustomerID, membership_plan, AddYoga, AddDiet, AddTrainer, CustomerType, PhoneNumber ;  
char name[50] ;  
int amount=0;  
printf("WELCOME TO FITNESS GYM AND WELLNESS  
CENTER\n");
```

```
printf("Enter Phone Number:\n");  
scanf("%d", & PhoneNumber);  
printf("Enter Customer ID:\n");  
scanf("%d",& CustomerID);  
printf("Enter Customer name:\n");  
scanf("%s",& name);  
printf("Enter Customer Type: 1= Individual/ 2= Corporate:\n");  
scanf("%d", & CustomerType);  
printf("Select Membership Plan:\n 1= Monthly\n 2= Quarterly \n 3= Annual\n");  
scanf("%d", & membership_plan);
```

```
printf("Add Yoga classes? 1=Yes/ 0=No:\n");  
scanf("%d", & AddYoga);  
printf("Add Personal Trainer? 1=Yes/ 0=No\n");  
scanf("%d", & AddTrainer);  
printf("Add Diet Plan? 1=Yes/ 0=No\n");  
scanf("%d", & AddDiet);
```

```
if (membership_plan==1) amount= amount+1000 ;  
if (membership_plan==2) amount= amount+ 2700;  
if (membership_plan==3) amount= amount+10000;
```

```

if(AddYoga==1 || AddTrainer==1 || AddDiet==1
)amount=amount+750;
if (CustomerType==2) {
    amount= amount*0.9;
}
printf("\n===== FITNESS MEMBERSHIP BILL
=====\\n");
printf("CustomerID      : %d\\n", CustomerID);
printf("Customer Name    : %s\\n", name);
printf("Customer Type    : %d\\n", CustomerType);
printf("Membership Plan  : ");

if (membership_plan==1) printf("Monthly\\n");
else if (membership_plan==2) printf("Quarterly\\n");
else if (membership_plan==3) printf("Annual\\n");
printf("Add-ons:\\n");
if (AddYoga == 1) printf("Yoga Classes      : ₹750\\n");
if (AddTrainer == 1) printf("Personal Trainer   : ₹750\\n");
if (AddDiet == 1) printf("Diet Plan         : ₹750\\n");
if (AddYoga == 0 && AddTrainer == 0 && AddDiet == 0) printf("
No Add-ons\\n");
printf("-----\\n");
printf("Total amount Payable: ₹ %d\\n", amount);
printf("Keep Going, Stay Fit and Healthy!\\n");
printf("=====\\n");

}

```

## 5) TESTING

1) CustomerID = 101

Phone = 9876543210

Name = Riya

Customer Type = 1 (Individual)

Membership Plan = 1 (Monthly)

AddYoga = 0

AddTrainer = 0

AddDiet = 0

Output:

Total amount payable: ₹1000

No Add-ons

Total = ₹1000

2) CustomerID = 102

Phone = 9988776655

Name = Aarav

Customer Type = 2 (Corporate)

Membership Plan = 2 (Quarterly)

AddYoga = 1

AddTrainer = 0

AddDiet = 1

Output:

₹2700 + ₹750, add-ons = ₹3450

Corporate discount (10%) → ₹3105 total

3) CustomerID = 103

Phone = 9090909090

Name = Neha

Customer Type = 1 (Individual)

Membership Plan = 3 (Annual)

AddYoga = 1

AddTrainer = 1

AddDiet = 1

Output:

₹10000 + ₹750 ,add-ons = ₹10750

No discount (individual) → ₹10750 total

4) CustomerID = 104

Phone = 9123456789

Name = Kartik

Customer Type = 2 (Corporate)

Membership Plan = 1 (Monthly)

AddYoga = 0

AddTrainer = 1

AddDiet = 0

₹1000 + ₹750 ,add-ons = ₹1750

Corporate discount (10%) → ₹1575 total

## **6) CONCLUSION**

This project — “Fitness Gym Membership Billing System” successfully automates the process of generating a gym membership bill based on customer details, chosen plan, and add-ons.

## **7) IMPLEMENTATION**