Topic : Online Fitness Trainer

Group no :MLB_04.01_05

Campus : Malabe / Metro / Matara / Kandy / Kurunegala / Kandy / Jaffna

Submission Date : 15/10/21

We declare that this is our own work and this Assignment does not incorporate without acknowledgment any material previously submitted by anyone else in SLIIT or any other university/Institute. And we declare that each one of us equally contributed to the completion of this Assignment.

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Exercise 1:

1) Requirements

- An online fitness trainer has a website that offers fitness programs
- There are 2 types of users for the system unregistered and registered members
- An unregistered member can visit the website and view the fitness programs offered by the personal trainer.
- They can become members by registering for the program. A user can only register for one program at a time
- To register they must make a payment by credit or debit card or PayPal. They also need to enter their personal details like name, contact details etc.
- Once the payment is validated and approved, they will become official members.
- users can also submit enquiries regarding any questions they may have, and they will receive a response via email
- Once the user logs in to their portal, they can view their workout plan and meal plans
- Many trainers can be assigned to a program and each member will have one trainer to coach them.
- Trainer can conduct live video workout sessions with member
- Trainer should customize meal plans and add workouts according to program as well as member's requirements
- System administrator can add or update programs and generate monthly reports on attendance and revenue
- Once the member completes a program, they can provide their review on the website as a testimonial. A member is accustomed to only review for a program.

2) Noun – verb analysis

Redundant	Attributes	Out of scope	Classes
• User • testimonial	• Credit, debit card, PayPal • name, contact details • attendance • revenue	• Website • Email • System admin	• Unregistered member • Registered member • Program • Payment • Trainer • Workout plan • Meal plan • Enquiries • reviews

3) Classes identified

1. Unregistered member
2. Registered member
3. Trainer
4. Program
5. Payment
6. Workout Plan
7. Enquiry
8. Report
9. Review
10. Meal plan

Exercise 2: CRC Cards

Class Name: Unregistered member	
Responsibilities:	Collaborations:
Register	

Class Name: Registered member	
Responsibilities:	Collaborations:
Log in	
Workout	Trainer

Class Name: Trainer	
Responsibilities:	Collaborations:
Conduct session	
Assign trainer	Program
Log in	
View member details	Registered member

Class Name: Program	
Responsibilities:	Collaborations:
Add program	
Update program	
Store program details	
View programs	Unregistered member

Class Name: Payment	
Responsibilities:	Collaborations:
Store payment details	
Store personal details	
Validate	

Class Name: Enquiry	
Responsibilities:	Collaborations:
Submit enquiry	
Receive email	Unregistered member

Class Name: Workout Plan	
Responsibilities:	Collaborations:
Add workout	
Update workout	
Assign workout	Trainer
View workout plan	Registered member

Class Name: Meal Plan	
Responsibilities:	Collaborations:
Add meal plan	
Update meal plan	
Assign meal plan	Trainer
View meal plan	Registered member

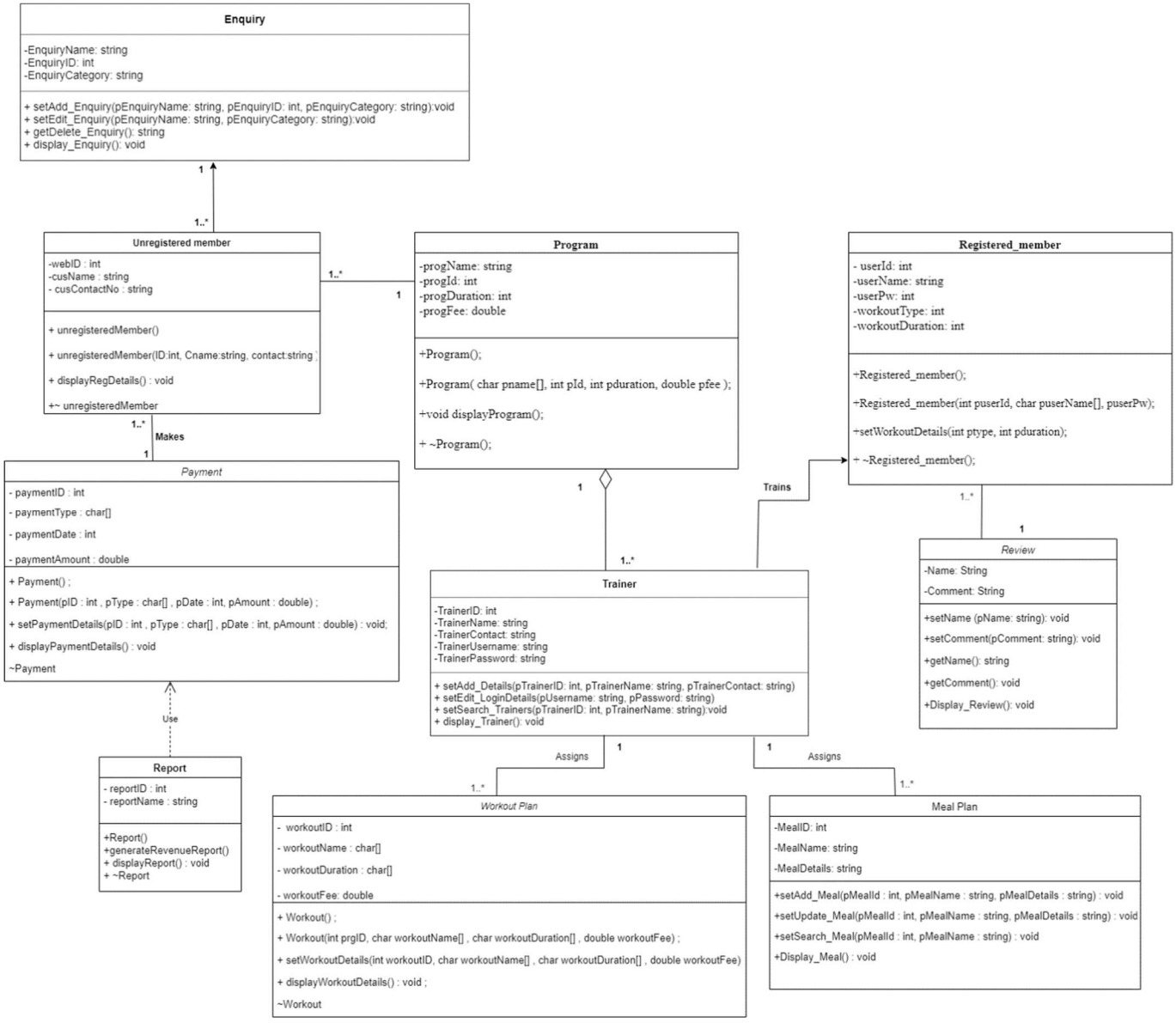
Class Name: Report	
Responsibilities:	Collaborations:
List of regular members	Registered member
Generate revenue report	Payment
Display report	

Class Name: Review	
Responsibilities:	Collaborations:
Submit review	Registered member
Delete review	

Individual Contribution

Registration No	Name	Classes designed
IT21004636	Perera G.N.P	Unregistered Program / Report
IT21140648	Wickramathilake K.W.S.D	Registered Member / Program
IT21129612	Pietersz N.J	Trainer / Enquiry
IT21127014	Dissanayake D.M.G.D	Payment / Workout Plan
IT21015458	Thiwanka W.A.D.A	Meal Plan / Reviews

Link to draw.io file(UML Diagram):
https://drive.google.com/file/d/1DjAZOGYTQmEVfXvacOCdZNyzt8rbIA2f/view?usp=sharing



Wickramathilake K.W.S.D

Unergistered_member.h

```
class Unregistered_member;

class program;


class Unregistered_member

{

 private:

                    int webId;

                    char cusName[20];

                    char cusDob[12];

                    int cusContactNo;

                    program* pro;


public:

                   Unregistered_member(int pWebId, char pname[], char pdob[], int pcontact);

                   void addProgram(program* pro);

                   void inputRegistration();

                   void displayRegDetails();

                   ~Unregistered_member();


};
```

Unregistered_member.cpp

```
#include<iostream>

#include "Unregistered_member.h"

#include<string.h>

using namespace std;
```

```
Unregistered_member::Unregistered_member(int pWebId, char pname[], char pdob[], int pcontact)
{
		webId = pWebId;
		strcpy(cusName, pname);
		strcpy(cusDob, pdob);
		cusContactNo = pcontact;
}

void Unregistered_member::addProgram(program* pro)
{

}

void Unregistered_member::inputRegistration()
{
}

void Unregistered_member::displayRegDetails()
{
		cout << "Web ID =" << webId << endl;
		cout << "Member name =" << cusName << endl;
		cout << "Customers date of birth = " << cusDob << endl;
		cout << "Contact No. = " << cusContactNo << endl;
}

Unregistered_member::~Unregistered_member()
{
```

}

Trainer.h

```
#pragma once

class trainer

{

private:

		int tainerId;

		char trainerName[20];

		int trainerContact;

		char trainerUsername[20];

		int trainerPw;


public:

		void setAddDetails(int ptrainerId, char ptrainerName[], int ptrainerContact);

		void setEditLoginDetails(char pUsername[], int pUserPw);

		void setSearchTrainers(int ptrainerId, char ptrainerName[]);

		void displayTrainer();
```

trainer.cpp

```
#include "trainer.h"

void trainer::setAddDetails(int ptrainerId, char ptrainerName[], int
ptrainerContact)
{
}

void trainer::setEditLoginDetails(char pUsername[], int pUserPw)
{
}

void trainer::setSearchTrainers(int ptrainerId, char ptrainerName[])
{
}
```

```
void trainer::displayTrainer()
{
}
```

Main.cpp

```
#include<iostream>

#include "Unregistered_member.h"

#include "program.h"

#include<string.h>

using namespace std;


int main()

{



}
```

Trainer.h

```
#pragma once
class trainer
{
private:
  int tainerId;
  char trainerName[20];
  int trainerContact;
  char trainerUsername[20];
  int trainerPw;

public:
  void setAddDetails(int ptrainerId, char ptrainerName[], int
ptrainerContact);
  void setEditLoginDetails(char pUsername[], int pUserPw);
  void setSearchTrainers(int ptrainerId, char ptrainerName[]);
  void displayTrainer();
```

trainer.cpp

```
#include "trainer.h"

void trainer::setAddDetails(int ptrainerId, char ptrainerName[], int
ptrainerContact)
{
}

void trainer::setEditLoginDetails(char pUsername[], int pUserPw)
{
}

void trainer::setSearchTrainers(int ptrainerId, char ptrainerName[])
{
}

void trainer::displayTrainer()
{
}
```

Dissanayake DMGD

Workout.h

```
class Workout{
private:
  int workoutID;
  char workoutName[20];
  char workoutDuration[20];
  double workoutFee;
public:
  Workout();
  Workout(int prgID, char prgName[], char prgDuration[], double prgFee);
  void setWorkoutDetails(int prgID, char prgName[], char prgDuration[], double
prgFee);
  void displayWorkoutDetails();
  ~Workout();
};
```

Workout.cpp

```
#include "Workout.h"
#include <iostream>
#include <cstring>
using namespace std;

Workout::Workout(){
  workoutID = 0;
```

```
  strcpy(workoutName,"");

  strcpy(workoutDuration,"");
  workoutFee = 0.00;
}
Workout::Workout(int prgID, char prgName[], char prgDuration[], double
prgFee){
  workoutID = prgID;
  strcpy(workoutName,prgName);
  strcpy(workoutDuration ,prgDuration);
  workoutFee = prgFee;
}
void setWorkoutDetails(int prgID, char prgName[], char prgDuration[], double
prgFee){

}

void Workout::displayWorkoutDetails(){
  cout<<"Workout ID :"<<workoutID<<endl;
  cout<<"Workout Name :"<< workoutName<<endl;
  cout<<"Duration :"<<workoutDuration<<endl;
  cout<<"Fee :"<<workoutFee<<endl;
}
Workout::~Workout(){

}
```

Payment.h

```
class Payment{
private:
  int paymentID;
  char paymentType[20];
  int date;
  double paymentAmount;
public:
  Payment();
  Payment(int pID, char pType[], int pDate, double pAmount);
  void setPaymentDetails(int pID, char pType[], int pDate, double pAmount);
  void displayPaymentDetails();
  ~Payment();
};
```

Payment.cpp

```
#include "Payment.h"
#include <iostream>
#include <cstring>
```

```
using namespace std;

Payment::Payment(){
  paymentID = 0;
  strcpy(paymentType,"");
  date = 0;
  paymentAmount = 0.0;
}
Payment::Payment(int pID, char pType[], int pDate, double pAmount){
  paymentID = pID;
  strcpy(paymentType,pType);
  date = pDate;
  paymentAmount = pAmount;
}
void Payment::setPaymentDetails(int pID, char pType[], int pDate, double
pAmount){


}
void Payment::displayPaymentDetails(){
  cout<<"Payment ID :"<<paymentID<<endl;
  cout<<"Payment Type :"<<paymentType<<endl;
  cout<<"Date :"<< date<<endl;
  cout<<"Amount :"<<paymentAmount<<endl;
}
Payment::~Payment(){

}
```

Perera GNP

Report.h

```
class Report{
  private:
      int reportID;
      char reportName [20];

  public:
      Report(int rtID, char rName[])
      void generateRevenueReport(Payment* p);
      void displayReport();
      ~Report();
}
```

Report.cpp

```
Report::Report(int rID, char rName[]){
    reportNo = rID;
    strcpy(reportName,rName);
}

void Report::generateRevenueReport(Payment* p){

}

void Report::displayReport(){

}

Report::~Report(){

}
```

Main.cpp

```
#include "report.h"
#include <iostream>
using namespace std;

int main(){
    Report* r1;

    r1 = new Report(121,"May 2021 Report");
    r1->generateRevenueReport(pay);
    r1->displayReport();
    delete r1;
}
```

Thiwanka W.A.D.A

Meal_Plan.h

```
class Meal_Plan{

  private:

    int MealID;
```

```
    std::string MealName;
    std::string MealDetails;

  public:
    void setAddMeal(int pMealID,std::string pMealName,std::string pMealDetails);
    void setUpdateMeal(int pMealID,std::string pMealName,std::string pMealDetails);
    void setSearchMeal(int pMealID,std::string pMealName);
    void Display();
};
```

Meal_plan.cpp

```
#include <iostream>
#include "Meal_Plan.h"
#include <cstring>
using namespace std;

void Meal_Plan::setAddMeal(int pMealID,string pMealName,string pMealDetails){
  MealID=pMealID;
  MealName=pMealName;
  MealDetails=pMealDetails;
}
void Meal_Plan::setUpdateMeal(int pMealID,string pMealName,string pMealDetails){

}
void Meal_Plan::setSearchMeal(int pMealID,string pMealName){
```

```
}
void Display(){


}
```

Main.cpp

```
#include <iostream>
#include "Meal_Plan.h"
#include <cstring>
using namespace std;

int main() {
  Meal_Plan Meal1;

  Meal1.Display();

  return 0;
}
```

Review.h

```
class Review{
  private:
    std::string Name;
    std::string Comment;

  public:
    void setName(std::string pName);
    void setComment(std::string pComment);
```

```
    std::string getName();
    std::string getComment();
    void Display();
};
```

Review.cpp

```
#include <iostream>
#include "Review.h"
#include <cstring>
using namespace std;



void Review::setName(string pName){
  Name=pName;
}
void Review::setComment(string pComment){
  Comment=pComment;
}
string Review::getName(){
  return Name;
}
string Review::getComment(){
  return Comment;
}
void Review::Display(){
  cout << "Your Review"<<endl<<endl;
  cout << "Name : " << getName() << endl;
  cout << "Comment : " <<getComment();
```

```
}
```

Main.cpp

```
#include <iostream>
#include <iostream>
#include "Review.h"
#include <cstring>
using namespace std;

int main() {
  Review myr;

  std::string Name,Comment;
  cout << "Enter Name : ";
  cin >>Name;
  cout << "Enter Comment : ";
  cin >>Comment;

  //seters assign Name, Comment
  myr.setName(Name);
  myr.setComment(Comment);

  myr.Display();

  return 0;
}
```

Pietersz NJ

Trainer.h

```
class Trainer{
  private:
  int trainerID;
  char trainerName[10];
  char trainerContactNo[10];
  char trainerUsername[15];
  char trainerPassword[10];

 public:
 void setAdd_Details(int pTrainerID, char pTrainerName[], char pTrainerContact[]);
 void setEdit_LoginDetails(char pUsername[], char pPassword[]);
 void setSearch_Trainers(int pTrainerID[], char pTrainerName[]);
 void displayTrainer_Details();
 ~Trainer();
};
=======
#pragma once
class trainer
{
private:
        int tainerId;
        char trainerName[20];
        int trainerContact;
        char trainerUsername[20];
        int trainerPw;
```

```
public:
        void setAddDetails(int ptrainerId, char ptrainerName[], int ptrainerContact);
        void setEditLoginDetails(char pUsername[], int pUserPw);
        void setSearchTrainers(int ptrainerId, char ptrainerName[]);
        void displayTrainer();
```

trainer.cpp

```
void Trainer::setEdit_LoginDetails(char pUsername[], char pPassword[]){
    strcpy(trainerUsername,pUsername);
    strcpy(trainerPassword,pPassword);
}

void Trainer::setSearch_Trainers(int pTrainerID[], char pTrainerName[]){

}

void Trainer::displayTrainer_Details(){
  cout << "Trainer ID: " << trainerID << endl;
  cout << "Trainer Name: " << trainerName << endl;
  cout << "Trainer Contact No: " << trainerContactNo << endl;
  cout << "Trainer Username: " << trainerUsername << endl;
  cout << "Trainer Password: " << trainerPassword << endl;

}
=======
```

```
#include "trainer.h"


void trainer::setAddDetails(int ptrainerId, char ptrainerName[], int ptrainerContact)

{

}


void trainer::setEditLoginDetails(char pUsername[], int pUserPw)

{

}


void trainer::setSearchTrainers(int ptrainerId, char ptrainerName[])

{

}


void trainer::displayTrainer()

{

}
```

Program.h

```
class Program{
  private:
  int programID;
  char programName[20];
  int programDuration;
  double programFee;


  public:
```

```
 void set_Program(char pName[], int pID, int pDuration, double pFee);
 void displayProgram();
 ~Program();

}
=======
#define SIZE
class Unregistered_member;
class program;

class program

{
private:
        char progName[20];
        int progId;
        int progDuration;
        double progFee;
        Unregistered_member * UM[SIZE];

public:
        program();
        program(char pname[], int pId, int pduration, double pfee);
        void displayProgram();
        ~ program();

};
```

Program.cpp

```
#include <iostream>
#include <cstring>
#include "program.h"
using namespace std;

void Program::set_Program(char pName[], int pID, int pDuration, double pFee){
  programID = pID;
  strcpy(programName,pName);
  programDuration = pDuration;
  programFee = pFee;

}

void Program::displayProgram(){
   cout << "Program ID: " << programID << endl;
   cout << "Program Name: " << programName << endl;
   cout << "Program Duration: " << programDuration << endl;
   cout << "Program Fee: " << programFee << endl;

}

Program::~Program(){
   cout << "Successful Joined" << endl;
}
=======
#include<iostream>
```

```
#include "program.h"
#include<string.h>
using namespace std;

program::program()
{
}

program::program(char pname[], int pId, int pduration, double pfee)
{
}

void program::displayProgram()
{
}

program::~program()
{
}
```

Enquiry.h

```
#include <iostream>
#include <cstring>
using namespace std;

class Enquiry {
  private:
  int enquiryID;
```

```
 char enquiryName[20];
 char enquiryCategory[30];

 public:
 void setadd_enquiry(int penID, char penName[], char penCategory[]);
 void setedit_enquiry(char penName[], penCategory[]);
 void getdelete_enquiry();
 void dispaly_enquiry();
 ~Enquiry();

};
```

Enquiry.cpp

```
#include <iostream>
#include <cstring>
#include "enquiry.h"
using namespace std;



void Enquiry::setadd_enquiry(int penID, char penName[], char penCategory[]){
  enquiryID = penID;
  strcpy(enquiryName,penName);
  strcpy(enquiryCategory,penCategory);
}

void Enquiry::setedit_enquiry(char penName[], penCategory[]){
```

```
}

void Enquiry::getdelete_enquiry(){
   return delete_enquiry;
}

void Enquiry::dispaly_enquiry(){
   cout << "Enquiry ID: " << enquiryID << endl;
   cout << "Enquiry Name: " << enquiryName << endl;
   cout << "Enquiry Category: " << enquiryCategory << endl;
}

Enquiry::~Enquiry(){
   cout << "Waiting for your Response" << endl;
}
```

Unregistered_member.h

```
class Unregistered_member;
class program;

class Unregistered_member
{
 private:
        int webId;
        char cusName[20];
        char cusDob[12];
        int cusContactNo;
```

```
        program* pro;

public:
        Unregistered_member(int pWebId, char pname[], char pdob[], int pcontact);
        void addProgram(program* pro);
        void inputRegistration();
        void displayRegDetails();
        ~Unregistered_member();

};
```

Unregistered_member.cpp

```
#include<iostream>
#include "Unregistered_member.h"
#include<string.h>
using namespace std;



Unregistered_member::Unregistered_member(int pWebId, char pname[], char pdob[], int pcontact)
{
        webId = pWebId;
        strcpy(cusName, pname);
        strcpy(cusDob, pdob);
        cusContactNo = pcontact;
}

void Unregistered_member::addProgram(program* pro)
```

```
{


}

void Unregistered_member::inputRegistration()
{
}

void Unregistered_member::displayRegDetails()
{
        cout << "Web ID =" << webId << endl;
        cout << "Member name =" << cusName << endl;
        cout << "Customers date of birth = " << cusDob << endl;
        cout << "Contact No. = " << cusContactNo << endl;
}

Unregistered_member::~Unregistered_member()
{


}
```