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CSE101:

Project Report on

Fitness Club Management System

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Project Description:

Fitness Club Management System

This project helps the club owner to manage the customers and keep their records like date of joining, package details, and train period. You can include the details of customer like name, mobile number, Body mass index (BMI), address and date of joining and package details.

Modules:

1. Add record of customer to file – addrecord()
2. Delete the record of customer – deleteRecord()
3. Display record of all customer – displayRecord()
4. Search the record of customer by mobile number and name or id – searchRecord()
5. Display slot timings of club and user must be able select any slot. – slotime()

Modules Description:

1. addrecord():
   This module adds details of the customer to a text file by taking the input as user in the form of name, address, gender, package, age, height, weight , calculates BMI and slot timings. This modules also generates customerId with the help of their name, mobile number and Gender.

2. deleteRecord():
   This module deletes the record of customer from the customer details text file by taking customerId as input from user.

3. displayRecord():
   This module displays records of all customers in the file.

4. searchRecord():
   This module helps us to find the details of the customer by taking customerId as input.

5. slotime():
   This module displays batch number with Slot time.

Source Code:

```c
#include <stdio.h>

#include <string.h>

#include <stdlib.h>



#define MAX_LINE_LENGTH 1024

#define MAX_ID_LENGTH 10

#define MAX_SIZE 1000

int addrecord();

int deleteRecord();

int searchRecord();

int displayRecord();

int slotime();

int main()

{
        printf("————————————————————————————————————————————————————————————————————————————————————————————————————————————————————");
        printf("                                                  **********WELCOME TO LPU FITNESS CLUB**********                     ");
        printf("————————————————————————————————————————————————————————————————————————————————————————————————————————————————————");

        char a;
        printf("Enter the number of the Action You Want to Perform:\n1. Display All Records\n2.Delete Record of Customer\n3.Search Record of Customer\n4.Add Record of Customer\n5.Display Slot Timings with Batch Number\nEnter You Response As 1,2,3,4 or 5: ");

        scanf("%c",&a);

        if (a=='1'){

                printf("The Records Are Displayed Below\n\n");

                displayRecord();

        }

        else if (a=='2'){
```

```c
                printf("Delete Records Option Selected...\n\n");

                deleteRecord();

        }else if(a=='3'){

                printf("Search Record Option Selected\n\n");

                searchRecord();

        }

        else if(a=='4'){

                printf("Add A New Customer to File\n\n");

                addrecord();

        }

        else if (a=='5'){

                slotime();

        }

        else{

                printf("Invalid Input");

        }


        return 0;

}

int addrecord(){

        FILE *ptr=NULL;

    ptr=fopen("customerDetails.txt","a");

    char h[5];

    gets(h);

        char name[50];

        printf("Enter Your Name: ");

        gets(name);


        char address[100];

        printf("Enter City, State: ");

        gets(address);
```

```c
    char Gender[7];

        printf("Enter Your Gender: ");

        gets(Gender);

        printf("Enter the package you are interested in:\n1. 10 Days Pakage\n2. 20 Days
Pakage\n3. Monthly Pakage\n4. Anual Pakage.\nEnter your response as whole: ");

        char pakage[20];

    gets(pakage);

        int age;

        printf("Enter Your Age in Years: ");

        scanf("%d",&age);

        float height;

        printf("Enter Your Height in Meters: ");

        scanf("%f",&height);

        float weight;

        printf("Enter Your Weight in Kgs: ");

        scanf("%f",&weight);

        int day, month, year;

    printf("Enter date of Joining in dd/mm/yyyy format: ");

    scanf("%d/%d/%d", &day, &month, &year);


        long long phone;

        printf("Enter Your Phone Number: ");

        scanf("%lld",&phone);



        char nid[2];

        strncpy(nid,name+0,2);

        nid[2]='\0';

        char gid[2];

        strncpy(gid,Gender+0,2);

        gid[2]='\0';

        char p[10];
```

```c
        snprintf(p,10,"%lld",phone);

        char pid[2];

        strncpy(pid,p+8,2);

        pid[2]='\0';

        float bmi=weight/(height*height);

    fprintf(ptr,"CustomerID: %s%s%s\t",nid,pid,gid);

        fprintf(ptr,"Name of Customer: %s\t",name);

        fprintf(ptr,"Date of Joining: %02d/%02d/%04d\t", day, month, year);

        fprintf(ptr,"Phone Number: %lld\t",phone);

        fprintf(ptr,"Address: %s\t",address);

        fprintf(ptr,"Gender: %s\t",Gender);

        fprintf(ptr,"Age: %d\t",age);

        fprintf(ptr,"Height: %.2f m\t",height);

        fprintf(ptr,"Weight: %.2f kgs\t",weight);

        fprintf(ptr,"BMI: %.2f\t",bmi);

        fprintf(ptr,"Package: %s\t",pakage);




        printf("Congratulations, Welcome to Our Fitness Family\nYour CustomerID is:
%s%s%s\n",nid,pid,gid);

        int t;

        printf("Please Select one of the below mentioned time slots:\n1. 6:00am -
7:00am\n2. 7:00am - 8:00am\n3. 8:00am - 9:00am\n4. 9:00am - 10:00am\n5. 10:00am -
11:00am\n6. 5:00pm - 6:00pm\n7. 6:00pm - 7:00pm\n8. 7:00pm - 8:00pm\n9. 8:00pm -
9:00pm\n10. 9:00pm - 10:00pm:\n Enter your Response: ");

        scanf("%d",&t);

        fprintf(ptr,"Slot Batch Number: %d\n",t);

        fprintf(ptr,"\n");

        fclose(ptr);

        return 0;

}
```

```c
int deleteRecord(){
    FILE *fp, *temp;
    char customer_id[10], buffer[MAX_SIZE];
    int found = 0;

    // open the original file
    fp = fopen("customerDetails.txt", "r");

    // create a temporary file
    temp = fopen("temp.txt", "w");

    // get the customer id from the user
    printf("Enter the customer id to delete: ");
    scanf("%s", customer_id);

    // read records from the original file and write them to the temporary file
    while (fgets(buffer, MAX_SIZE, fp) != NULL) {
        // check if the record contains the desired customer id
        if (strstr(buffer, customer_id) != NULL) {
            found = 1;
            continue; // skip the record
        }
        fputs(buffer, temp); // write the record to the temporary file
    }

    // close the files
    fclose(fp);
    fclose(temp);

    // delete the original file
    remove("customerDetails.txt");
```

```c
    // rename the temporary file
    rename("temp.txt", "customerDetails.txt");


    if (found == 1) {
        printf("Record deleted successfully.");
    } else {
        printf("Record not found.");
    }


    return 0;
}


int searchRecord(){


        char filename[] = "customerDetails.txt";
    char id[MAX_ID_LENGTH];
    char line[MAX_LINE_LENGTH];
    FILE *fp;


    // Get the customer ID from the user
    printf("Enter the customer ID: ");
    scanf("%s", id);


    // Open the text file for reading
    fp = fopen(filename, "r");
    if (fp == NULL) {
        printf("Error opening file\n");
        return 1;
    }


    // Search for the record with the matching customer ID
```

```c
    while (fgets(line, MAX_LINE_LENGTH, fp) != NULL) {
        if (strstr(line, id) != NULL) {
            printf("%s", line);
            fclose(fp);
            return 0;
        }
    }


    // If no matching record was found, print an error message
    printf("Customer not found\n");


    // Close the file and exit the program
    fclose(fp);
    return 0;
}


int displayRecord(){
            FILE *ptr2;
        ptr2=fopen("customerDetails.txt","r");
        char c;
        printf("Customer Details:\n\n");
        while(1){
            c=fgetc(ptr2);
            printf("%c",c);
            if(c==EOF){
                    break;
            }
        }
        fclose(ptr2);
        return 0;
}
int slotime(){
```

```c
        printf("Slot Timings with Their Slot Batch Number Are given Below:\n1. 6:00am -
7:00am\n2. 7:00am - 8:00am\n3. 8:00am - 9:00am\n4. 9:00am - 10:00am\n5. 10:00am -
11:00am\n6. 5:00pm - 6:00pm\n7. 6:00pm - 7:00pm\n8. 7:00pm - 8:00pm\n9. 8:00pm -
9:00pm\n10. 9:00pm - 10:00pm");

        return 0;

}
```

Output Screenshots:
1. Adding Customer Details:

```
--------------------------------------------------------------------------------------------
                    **********WELCOME TO LPU FITNESS CLUB**********
--------------------------------------------------------------------------------------------
Enter the number of the Action You Want to Perform:
1. Display All Records
2.Delete Record of Customer
3.Search Record of Customer
4.Add Record of Customer
5.Display Slot Timings with Batch Number
Enter You Response As 1,2,3,4 or 5: 4
Add A New Customer to File

Enter Your Name: Saptrshi Patnayak
Enter City, State: Ranchi, Jharkhand
Enter Your Gender: Male
Enter the package you are interested in:
1. 10 Days Pakage
2. 20 Days Pakage
3. Monthly Pakage
4. Anual Pakage.
Enter your response as whole: 10 Days Pakage
Enter Your Age in Years: 20
Enter Your Height in Meters: 1.82
Enter Your Weight in Kgs: 83.5
Enter date of Joining in dd/mm/yyyy format: 05/03/2023
Enter Your Phone Number: 6589742156
Congratulations, Welcome to Our Fitness Family
Your CustomerID is: Sa56Ma
Please Select one of the below mentioned time slots:
1. 6:00am - 7:00am
2. 7:00am - 8:00am
3. 8:00am - 9:00am
4. 9:00am - 10:00am
5. 10:00am - 11:00am
6. 5:00pm - 6:00pm
```

2. Delete Record:

```
--------------------------------------------------------------------------------------------
                    **********WELCOME TO LPU FITNESS CLUB**********
--------------------------------------------------------------------------------------------
Enter the number of the Action You Want to Perform:
1. Display All Records
2.Delete Record of Customer
3.Search Record of Customer
4.Add Record of Customer
5.Display Slot Timings with Batch Number
Enter You Response As 1,2,3,4 or 5: 2
Delete Records Option Selected...

Enter the customer id to delete: Sa56Ma
Record deleted successfully.
--------------------------------
Process exited after 27.64 seconds with return value 0
Press any key to continue . . .
```

3. Search Record of Customer:

```
--------------------------------------------------------------------------------------------
                    **********WELCOME TO LPU FITNESS CLUB**********
--------------------------------------------------------------------------------------------
Enter the number of the Action You Want to Perform:
1. Display All Records
2.Delete Record of Customer
3.Search Record of Customer
4.Add Record of Customer
5.Display Slot Timings with Batch Number
Enter You Response As 1,2,3,4 or 5: 3
Search Record Option Selected

Enter the customer ID: Ta11Ma
CustomerID: Ta11Ma      Name of Customer: Tanishk Raj   Date of Joining: 05/12/2022     Phone Number: 6204860311      Address: Gaya, Bihar     Gend
er: Male    Age: 19 Height: 1.81 m  Weight: 82.40 kgs      BMI: 25.15      Pakage: 10 Days Pakage  Slot Batch Number: 2

---------------------------------
Process exited after 22.58 seconds with return value 0
Press any key to continue . . .
```

4. Display All Records

```
--------------------------------------------------------------------------------------------
                    **********WELCOME TO LPU FITNESS CLUB**********
--------------------------------------------------------------------------------------------
Enter the number of the Action You Want to Perform:
1. Display All Records
2.Delete Record of Customer
3.Search Record of Customer
4.Add Record of Customer
5.Display Slot Timings with Batch Number
Enter You Response As 1,2,3,4 or 5: 1
The Records Are Displayed Below

Customer Details:

CustomerID: Ta11Ma      Name of Customer: Tanishk Raj   Date of Joining: 05/12/2022     Phone Number: 6204860311      Address: Gaya, Bihar     Gend
er: Male    Age: 19 Height: 1.81 m  Weight: 82.40 kgs      BMI: 25.15      Pakage: 10 Days Pakage  Slot Batch Number: 2


CustomerID: Na91Ma      Name of Customer: Nabajit Pahadsingh   Date of Joining: 05/08/2021     Phone Number: 895675489Address: Bhubaneshwar, Odisha
    Gender: Male    Age: 21 Height: 1.65 m  Weight: 75.40 kgs      BMI: 27.70      Pakage: 20 Days Pakage  Slot Batch Number: 4

CustomerID: Sh26Fe      Name of Customer: Shruti      Date of Joining: 05/09/2020     Phone Number: 6954878526      Address: Jammu, J&K     Gend
er: Female  Age: 17 Height: 1.56 m  Weight: 42.80 kgs      BMI: 17.59      Pakage: Anual Pakage    Slot Batch Number: 5

CustomerID: Ma15Ma      Name of Customer: Manjeet      Date of Joining: 21/02/2023     Phone Number: 6589742315      Address: Aara, Bihar     Gend
er: Male    Age: 19 Height: 1.72 m  Weight: 72.60 kgs      BMI: 24.54      Pakage: 20 Days Pakage  Slot Batch Number: 6

CustomerID: Sw45Fe      Name of Customer: Swarna      Date of Joining: 10/02/2023     Phone Number: 6587942145      Address: Lucknow, UP     Gend
er: Female  Age: 20 Height: 1.70 m  Weight: 40.50 kgs      BMI: 14.01      Pakage: 10 Days Pakage  Slot Batch Number: 10

CustomerID: Ma45Fe      Name of Customer: Mantasha      Date of Joining: 02/07/2021     Phone Number: 6895657845      Address: Patna, Bihar     Gend
er: Female  Age: 19 Height: 1.73 m  Weight: 70.90 kgs      BMI: 23.69      Pakage: Anual Pakage    Slot Batch Number: 8
```

5. Display Slot Timings with Batch Number:

```
----------------------------------------------------------------------------------
                        **********WELCOME TO LPU FITNESS CLUB**********
----------------------------------------------------------------------------------
Enter the number of the Action You Want to Perform:
1. Display All Records
2.Delete Record of Customer
3.Search Record of Customer
4.Add Record of Customer
5.Display Slot Timings with Batch Number
Enter You Response As 1,2,3,4 or 5: 5
Slot Timings with Their Slot Batch Number Are given Below:
1. 6:00am - 7:00am
2. 7:00am - 8:00am
3. 8:00am - 9:00am
4. 9:00am - 10:00am
5. 10:00am - 11:00am
6. 5:00pm - 6:00pm
7. 6:00pm - 7:00pm
8. 7:00pm - 8:00pm
9. 8:00pm - 9:00pm
10. 9:00pm - 10:00pm
----------------------------------
Process exited after 1.696 seconds with return value 0
Press any key to continue . . .
```

Thank You…