



## **DCP5101 - PROGRAM DESIGN**

Trimester 2126, 2021/2022

### **TOPIC: GROUP ASSIGNMENT (GROUP 11)**

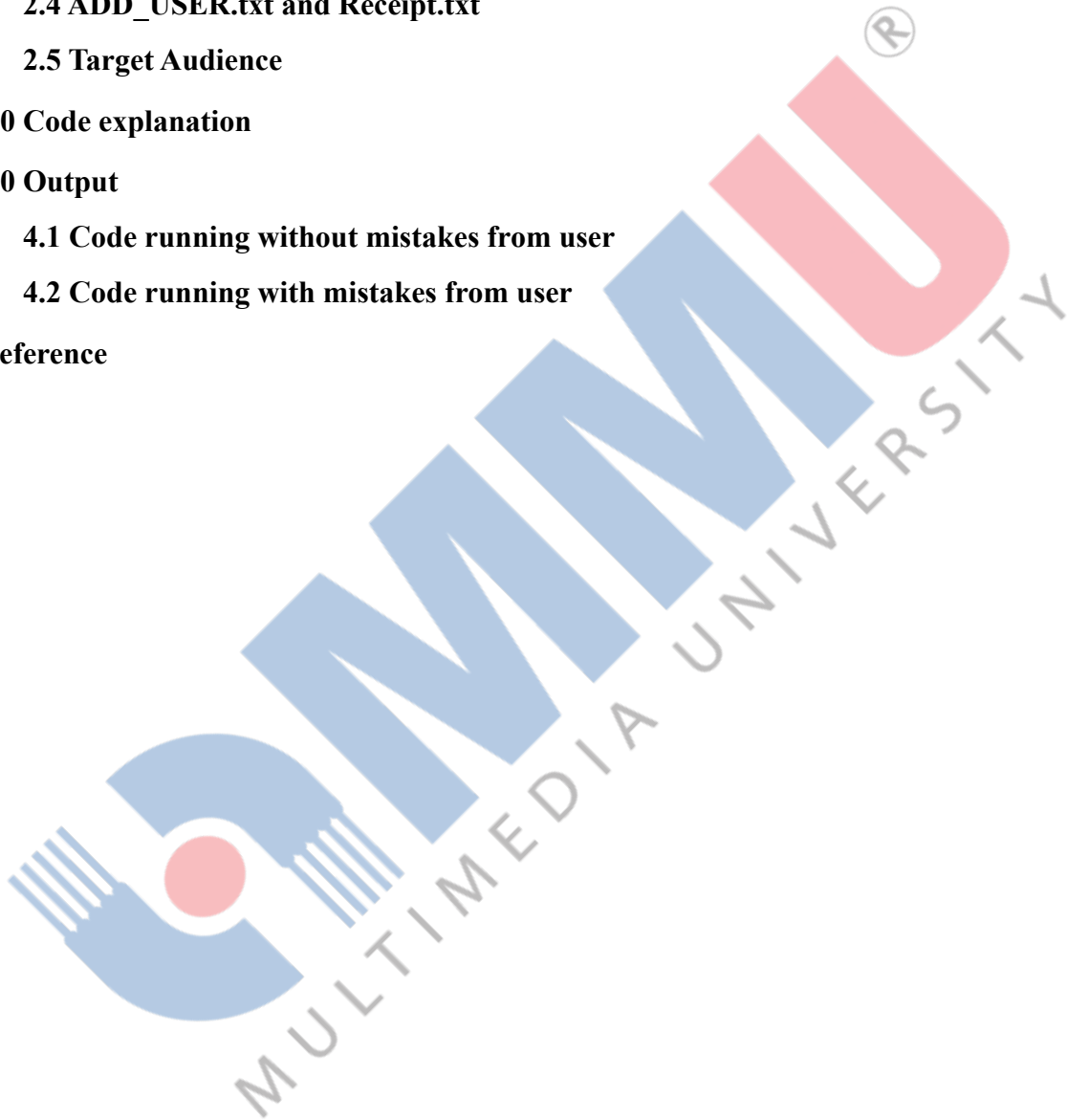
LECTURER NAME: RUZANNA BINTI ABDULLAH

LECTURE SESSION: FCI

STUDENT NAME	ID NUMBER
MUHAMAD ARIF BIN SALLEHUDDIN	1211206128
MUHAMMAD FITRI BIN YUSA'	1211206096
SAAJ MD TAFSIRUL ISLAM	1211206293

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## 1.0 Introduction

The project title we have chosen is the Travel Agency Program. The inspiration for the code output is from our experience selecting a travel package for local and international destinations. Our user tester who wishes to be anonymous tested the program to enhance the booking experience and feedback.

## 2.0 Features

### 2.1 CAPTCHA System

CAPTCHA stands for the Completely Automated Public Turing test to tell computers and Humans Apart. CAPTCHAs are tools that we use to differentiate between users and automated users (also known as bots). It provides challenges that are difficult for computers to perform but easy for humans. In short, CAPTCHA helps protect the system from spam and password decryption by asking you to do a simple test that proves you are a human and not a computer.

### 2.2 Display Menu

We added a display menu to enhance the user experience when using the program. The display menu is intended for use to let users pick the action that is given. We created 2 options which are **“Book Package - 1”** to proceed with the booking section and **“Exit - 2”** to exit the program (if the user decided to cancel). In this option, the user can key in “1 or 2” for the command.

### 2.3 Multiple Selection (International vs Domestic Package)

We created 2 sections for the destination call International and Domestic Tour Package. Options 1, 2 & 3 are reserved for the international package, and 4,5 & 6 are reserved for the domestic package. The package includes ticket prices, amenities, location, duration, and other information. We also added senior citizen price (50% discount) and children price (30% discount) once the user has a key in the age. The price will automatically display.

## **2.4 ADD\_USER.txt and Receipt.txt**

ADD\_USER.txt were created in the program to enable us to record the users who use the program and enable us to backtrack if the user has further inquiries about the package that the user key in. It also acts as a fail-safe feature as it acts as a backup file if the program has been breached or hacked. We also added Receipt.txt as part of the file professing feature. This feature enables the program to generate a text file called Receipt.txt once the user has filled in the required input for their reference.

## **2.5 Target Audience**

The Program was designed for travel agency companies that still practice the traditional method which relies on heavy marketing i.e. (Posters, Cold calling, and Promotional Events/Festivals). Due to the rise of the Covid-19 pandemic worldwide, mass gatherings were banned by the government in order to cope with the rising cases. The solution is to digitize the content using automation. This program fills that role. This helps the company able to adapt to the current customer as well as attract newer customers via the program. Other than that, Airline and Banking companies may also benefit from this program as they can advertise exclusive deals to their loyal users using this program.

### 3.0 Code explanation

```
// Function declaration
void Add_user(); // void w/o parameter
void Get_printticket();
void Get_Exit();
void details();
void Get_bookpackage();
void calculate();
float DISC(float price); // non-void with parameter
void fare(int AB);
int inter(); // non-void w/o parameter
int Domestic();
int Get_list();
```

Figure 3.0.1: Function declaration

We define three functions void without parameter, non-void with parameter, and non-void without parameter. Void without parameter the function is not expected to send or return any value from other function. For non-void with parameter is expected to receive and return the value from other function. For non-void without parameter, the function is not expected to receive any value from other functions but expected to return a value.

```
for(i=0; i<3; i++) // loop 3 times for user key in 3 numbers
{
    printf("Enter number %d : ", i+1);
    scanf("%d", &*(ptr+i)); // pointer based notation
}

if(A[0]==432 && A[1]==983 && A[2]==4831) // if user key in correctly
{
    // ...
}
```

Figure 3.0.2: for loop, pointer, and array-based notation

We use the for loop to ask the user to enter the number stated three times before being able to continue with the program. Based on the variables declaration, there is an array named A with three sizes and a pointer named ptr. We also stated that ptr=A. To store the value, we use the pointer-based notation which means that the value to the point of ptr will be stored in array A because of the statement of ptr=A. Meaning that array A now has the same value that is being stored in pointer ptr.

```

do {
    printf( "\nEnter age: " );
    scanf( "%d", &age );
    if ( age < 7 ) // def
    {
        price = login
        x = 1;
        countc = cou
    }
    else if ( age > 5
    {
        price = login
        x = 1;
        counts = cou
    }
    else // normal p
    {
        price = login
        x = 1;
        counta = cou
    }

    printf( "Fare is RM
    login.total_price =
    p++;
    fflush( stdin );
    printf( "Add group
    scanf( "%c", &answer
) while ( answer == 'Y' || an

```

Figure 3.0.3. :do-while loop

The do-while loop is a looping statement that the compiler will do the statement before looping it back with a condition from while. In this case, the compiler asks the user to key in their age before asking if they want to add more members which will loop if yes.

```

if ( AB == 1 )
{
    calculate();
}
else if ( AB == 2 )
{

```

Figure 3.0.4: if-else is statement

The if-else if statement is used for the selection to determine which statements are correct. If the first if statement is false, the compiler will go to the next else if statement.

```

switch(x)
{
    case 1: choice=inter(); //functi
            break;
    case 2: choice=Domestic();
            break;
    default: printf("\n\t\t\t\t\tPleas
                  Get_bookpackage();
            break;
}
return(choice);

```

Figure 3.0.5: switch statement

The switch selection is used for the user to key in the correct value. If the user key in the first case, the compiler will only complete the first case before exiting the selection statement.

```

// Defining Structure
struct destination
{
    float price;
    float total_price;
    float total_price1;
};

```

Figure 3.0.6: Structure definition

Define a structure named destination that has three variables which are price, total\_price, and total\_price1.

```

FILE *fwrite, *fread; // declaration of pointer for file
fread = fopen("ADD_USER.txt", "r"); // to open the file
fwrite = fopen("Receipt.txt", "w");

```

Figure 3.0.7: File

There are two pointer declarations for FILE, which are fwrite and fread. The fread pointer is used to read the details in the ADD\_USER.txt file. As for fwrite, it is used to write the details into the Receipt.txt file.

## 4.0 Output

### 4.1 Code running without mistakes from user

```
For security purpose,please enter all numbers below

      432      983      4831
Enter number 1 : 432
Enter number 2 : 983
Enter number 3 : 4831

432      983      4831
You enter the correct numbers

Press any key to continue . . .
```

Figure 4.1.1 CAPTCHA System

```
C:\Users\muham\OneDrive - jceschool\jceschool\MMU\DCP5101 Program Design\Assignment\Latest_update_29.6_5pm\C
=====
WELCOME TO TRAVEL SENSE AGENCY
=====
Book Package - 1
Exit         - 2

Enter Here: 1

Enter your name :Fitri
Enter your phone number (without(-)) :012393422
Enter your Email address :Muh@mmu.com
```

Figure 4.1.2 Key-in user data

```
ADD_USER - Notepad
File Edit Format View Help
Fitri 012393422 Muh@mmu.com
```

Figure 4.1.3 Data of user in ADD\_USER.txt

```
ool,jceschool\MMU\DCP5101 Program Design\Assignmen
1.International Tour Package
2.Domestic Tour Package

Enter Your Choice : 1_
```

Figure 4.1.4 Option of destination



```

C:\Users\muham\OneDrive - jceschool\jceschool\MMU\DCP5101 Program Design\Assignment\Latest_update_29.6_5pm\Complete_code.e
1.Korea Tour Package
***RM4300***
Duration: 8 Days 7 Nights
Places to visit:
i. Incheon
    a. Seoul Central Masjid
    b. Incheon Grand Park
    c. Incheon Jayu Park
ii. Gangwon-do
    a. Nami Island
iii. Seoul
    a. N Seeoul Tower
    b. National Folk Museum of Korea
    c. Gyeongbokgung
    d. Bukchon Hanok Village

+Include flight ticket from KLIA to Korea International Airport and return ticket
+Include Bus Tour +flights to Jeju Island

2.Japan Tour package
***RM4500***
Duration:9 Days 8 Nights
Places to visit:
i. Kyoto
    a.Nijo Castle
    b.Fushimi-Inari
    c.Kinkau-ji
    d.Sanjusangen
    e.Shinkansen Ride o Fukuoka Ohori Park
ii.Osaka
    a.Osaka castle
    b.Tempoan ferris
    c.Osaka Aquarium
iii.Kobe
    a.The Kobe Port Tower
    b.Takenaka Museum
    c.kalikyo bridge
    d.Climb mount rokko
    e.Oji zoo

+Include flight ticket from KLIA to Osaka International Airport and return ticket
+Include Bus Tour
+Shopping Voucher

3.Thailand Tour Package
***RM3500***
Duration: 12 Days 11 Nights
Places to visit:
i.Hat-Yai
    a.Trimongkol
    b.Pirates Park
    c.Songkhla Central Mosque
    d.Greenway night market
ii.Trang
    a.Ko Kradan
    b.Ko Muk
    c.Ko Rok Noi
    d.Pak meng beach
iii.Krabi
    a.Railay beach
    b.Thung Teao Forest Park
    c.Wat Tham Sua
    d.Phi Phi Island

+Include flight ticket from KLIA to Hat Yai International Airport and return ticket
+Include Bus Tour + bike ride
+Public Transportation Pass
+Travel Kit

Enter your choice: 1

The price for one adult is RM4300.00

```

Figure 4.1.5 Option of packages offer

```
C:\Users\muham\OneDrive - jceschool\jceschool\MMU\DCP5101 Program Design\Assignme

Enter age for person 1 :24
Fare is RM4300.00

Add group member [Y/N]: y

Enter age for person 2 :6
Fare is RM2150.00

Add group member [Y/N]: y

Enter age for person 3 :60
Fare is RM3010.00

Add group member [Y/N]: N
Do you have any coupon?[Y/N]:Y

Enter your coupon : MMUDISC

Fare      : RM9460.00
Discount  ; RM2838.00
Tax       : RM397.32
Total fare : RM7019.32

Press any key to continue . . .
```

Figure 4.1.6 Key-in age for each prices

```
C:\Users\muham\OneDrive - jceschool\jceschool\MMU\DCP5101 Program Design\Assignme

Your Email      :Muh@mmu.com
Your Full Name:Fitri
Your Phone No.: 012393422

Trip package to Korea  Tour Package
Adult : 1
Child : 1
Senior: 1

Fare      : RM9460.00
Discount  : RM2838.00
Tax       : RM397.32
Your Total Price is: RM7019.32

Do you wish to
1.Continue
2.Edit numbers of person
3.Cancel the booking
Enter here :1
Continue to print the receipt

Press any key to continue . . .

Your ticket is printing please check at the download folder

Exiting the program...

Developed By Group 11,DCP5101
Brought To You By Travel Sense

-----
Process exited after 289.3 seconds with return value 0
Press any key to continue . . .
```

Figure 4.1.7 Display summary

Receipt - Notepad

File Edit Format View Help

Your email :Muh@mmu.com

Your Full Name:Fitri

Your Phone No.: 012393422

Trip package to Korea Tour Package

Adult : 1

Child : 1

Senior: 1

Fare : RM9460.00

Discount : RM2838.00

Tax : RM397.32

Your Total Price is: RM7019.32

Thank You.

For further inquiries, you can email us at [travelsense@mmu.edu.my](mailto:travelsense@mmu.edu.my)

Thank you choosing Travel Sense

Figure 4.1.7 Receipt in Receipt.txt

## 4.2 Code running with mistakes from user

```
For security purpose,please enter all numbers below
      432      983      4831
Enter number 1 : 12
Enter number 2 : 2
Enter number 3 : 2
You are a robot
Exiting the program...

Developed By Group 11,DCP5101
Brought To You By Travel Sense

Process returned 0 (0x0)   execution time : 3.706 s
Press any key to continue.
```

Figure 4.2.1 Failed RECAPTCHA

```
=====
WELCOME TO TRAVEL SENSE AGENCY
=====
Book Package - 1
Exit          - 2

Enter Here: 2

Exiting the program...

Developed By Group 11,DCP5101
Brought To You By Travel Sense

Process returned 0 (0x0)   execution time : 69.281 s
Press any key to continue.
```

Figure 4.2.2 Exiting the program

```
jceschoolo\MMU\DCP5101 Program Design\Assignment\L
1.International Tour Package
2.Domestic Tour Package

Enter Your Choice : 3

Please enter the correct number

1.International Tour Package
2.Domestic Tour Package

Enter Your Choice : _
```

Figure 4.2.3 Wrong number key-in two types of packages

```
C:\Users\muham\OneDrive - jceschoolo\jceschoolo\MMU\DCP5101 Program Design\Assignment\Latest_update_29.6_5pm\Complete_code.exe
4.Pulau Langkawi Grand Tour Package
***RM999***
Duration: 5 Days 4 Nights
Places to visit:
1. Langkawi Sky Bridge
2. Dataran Lang(Eagle Square)
3. Makam Mahsuri
4. Langkawi Cable Car
+Include direct flight ticket from KLIA to Langkawi International Airport Kedah and return ticket
+Include Bus Tour + Ferry transportation

5.Melaka Heritage Tours Package
***RM599***
Duration: 3 Days 2 Nights
Places to visit:
1. Zoo Melaka
2. Stadthuys Building and A Famosa fort
3. Jonker Walk + Melaka River Cruise
4. Muzium Melaka
+Include Bus Tour
+Dataran Pahlawan Shopping Voucher

6.Kuala Lumpur History Lane Package
***RM449***
Duration: 4 Days 3 Nights
Places to visit:
1. Tugu Negara (National Monument)
2. KLCC Skybridge
3. KL Tower + Dataran Merdeka (Merdeka Square)
4. Zoo Negara
5.Petaling Street(Formerly known as Chinatown
Include Bus Tour + Go KL Double Decker Bus
+Public Transportation Prepaid Card (TNG) worth of 50 ringit
+Kuala Lumpur Handmade Travel Kit

Enter your choice: 3

Please Enter Correct Choice...
Press any key to continue . . . _
```

Figure 4.2.4 Wrong number key-in of packages available

```
C:\Users\muham\OneDrive - jceschoolo\jceschoolo\MMU\DCP5101 Program Design\Assignment\Latest_update_29.6.5pm\Co

Enter age for person 1 :24
Fare is RM999.00

Add group member [Y/N]: N
Do you have any coupon?[Y/N]:Y

Enter your coupon : MMudisc
You enter an invalid coupon
Press any key to continue . . .

Enter your coupon : MMUDISC

Fare      : RM999.00
Discount  ; RM299.70
Tax       : RM41.96
Total fare : RM741.26

Press any key to continue . . .
```

Figure 4.2.5 Wrong coupon key-in

```
C:\Users\muham\OneDrive - jceschoolo\jceschoolo\MMU\DCP5101 Program Design\Assignment\Latest_update_29.6.5pm\Co

Your Email      :MMu.@musd.com
Your Full Name:Fitri
Your Phone No.: 91230234

Trip package to Pulau Langkawi Grand Tour Package
Adult : 1
Child : 0
Senior: 0

Fare      : RM999.00
Discount  : RM299.70
Tax       : RM41.96
Your Total Price is: RM741.26

Do you wish to
1.Continue
2.Edit numbers of person
3.Cancel the booking
Enter here :5

Please enter the crrect number
Press any key to continue . . .
```

Figure 4.2.6 Wrong number key-in

## Reference

*Tourism Management System in C/C++*. GeeksforGeeks. (2021, September 22). Retrieved June 28, 2022, from <https://www.geeksforgeeks.org/tourism-management-system-in-c-c/>

Evangelista, A. (2021, November 12). *Tourism Management System Project in C with source code*. Tourism Management System Project in C with Source Code. Retrieved June 28, 2022, from <https://sourcecodehero.com/tourism-management-system-project-in-c-with-source-code/>

