

## **ASSIGNMENT SEMESTER 2**

**MODULE: PROGRAM DESIGN**

**YEAR: 2021/2022**

**CLASS: COMPUTER SCIENCE**

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## DESIGN OF PROGRAMS

First Program screen design:

### 1<sup>ST</sup> PROGRAM DESIGN:

#### HOLIDAY SPECIAL OFFERS SYSTEM

- ARE YOU READY FOR THE BEST EXPERIENCE OF YOUR LIFE? (Y/N): \_\_\_\_
- CHOOSE AN OPTION TO PROCEED: \_\_\_\_

#### HOLIDAY OFFERS MENU

- (a) ADD RECORD
- (b) DELETE RECORD
- (c) UPDATE RECORD
- (d) SEARCH HOLIDAY OFFER BY CATEGORY
- (e) SEARCH HOLIDAY OFFER BY COUNTRY
- (f) SAVE AND EXIT

THE OPTION CHOSEN IS: \_\_ (a)  
(ERROR! YOU HAVE GOT TO CHOOSE ONE OF THE OPTION ABOVE FROM 'a' TO 'f')

#### DISPLAY HOLIDAY OPTION (HOLIDAY SPECIAL OFFERS)

1- HOLIDAY\_ID (Must have 8 characters): \_\_\_\_ (NA000000)  
(ERROR - MUST HAVE 8 CHARACTERS)

2- COUNTRY LOCATION: \_\_\_\_ (SWITZERLAND)

3- CATEGORY:

#### DISPLAY CATEGORY OPTION

- 1. TOURISM CAR DRIVE (BUS) WALK ABOUT
- 2. CITY BREAK TOURISM AREA
- 3. SKIING

CHOOSE ONE OF THE OPTION BELOW: \_\_ (2)

4- DESCRIPTION: \_\_\_\_ (SNOW BOARDING SEASON)

5- START DATE: \_\_\_\_ (20/02/2023)

6- DURATION: \_\_\_\_ (10 DAYS)  
7- TRAVEL PRICE: \_\_\_\_ (850 POUND)

(HOLIDAY HAS BEEN ADDED!)

- WOULD YOU LIKE TO ADD ANOTHER HOLIDAY OFFER RECORD? (Y/N)  
PRESS ANY KEY TO CONTINUE ... \_\_\_\_ (ENTER KEY)

#### HOLIDAY OFFERS MENU

- (a) ADD RECORD
- (b) DELETE RECORD
- (c) UPDATE RECORD
- (d) SEARCH HOLIDAY OFFER BY CATEGORY
- (e) SEARCH HOLIDAY OFFER BY COUNTRY
- (f) SAVE AND EXIT

THE OPTION CHOSEN IS: \_\_\_\_ (b)  
(ERROR! YOU HAVE GOT TO CHOOSE ONE OF THE OPTION ABOVE FROM 'a' TO 'f')

(HOLIDAY OFFER HAS BEEN FOUND!)

#### DISPLAY HOLIDAY OFFERS

(1)

1- HOLIDAY\_ID (Must have 8 characters): \_\_\_\_ (NA000000)  
(Error, must have 8 characters)

2- COUNTRY DESTINATION: \_\_\_\_ (SWITZERLAND)

3- CATEGORY: \_\_\_\_ (Skiing)

4- DESCRIPTION: \_\_\_\_ (SNOW BOARDING SEASON)

5- START DATE: \_\_\_\_ (20/02/2023)

6- DURATION: \_\_\_\_ (10 DAYS)

7- TRAVEL PRICE: \_\_\_\_ (850 POUND)

PLEASE SELECT WHAT HOLIDAY RECORD YOU WANT TO DELETE (FROM 1,2,3... TO THE END): \_\_\_\_

(HOLIDAY OFFER BEEN DELETED!)

PRESS ANY KEY TO CONTINUE... \_\_\_\_ (ENTER KEY)

### HOLIDAY OFFERS MENU

- (a) ADD RECORD
- (b) DELETE RECORD
- (c) UPDATE RECORD
- (d) SEARCH HOLIDAY OFFER BY CATEGORY
- (e) SEARCH HOLIDAY OFFER BY COUNTRY
- (f) SAVE AND EXIT

THE OPTION CHOSEN IS: \_\_ (c)

(ERROR! YOU HAVE GOT TO CHOOSE ONE OF THE OPTION ABOVE FROM 'a' TO 'f')

### DISPLAY HOLIDAY OFFERS

(1)

1- HOLIDAY\_ID (Must have 8 characters): \_\_ (NA000000)  
(Error, must have 8 characters)

2- COUNTRY DESTINATION: \_\_ (SWITZERLAND)

3- CATEGORY: \_\_ (Skiing)

4- DESCRIPTION: \_\_ (SNOW BOARDING SEASON)

5- START DATE: \_\_ (20/02/2023)

6- DURATION: \_\_ (10 DAYS)

7- TRAVEL PRICE: \_\_ (850 POUND)

PLEASE SELECT WHAT HOLIDAY RECORD YOU WANT TO UPDATE (FROM 1,2,3..TO THE END): \_\_ (1)

PLEASE RE-ENTER NEW DATA!

1- HOLIDAY\_ID (Must have 8 characters): \_\_\_\_ (jalil000)  
(Error, must have 8 characters)

2- COUNTRY DESTINATION: \_\_\_\_ (ITALY)

3- CATEGORY: \_\_\_\_ (WALKING)

4- DESCRIPTION: \_\_\_\_ (TOURISM AROUND ROME)

5- START DATE: \_\_\_\_ (20/12/2022)

6- DURATION: \_\_\_\_ (10 DAYS)

7- TRAVEL PRICE: \_\_\_\_ (1067.90 POUND)

(HOLIDAY OFFER HAVE BEEN UPDATED SUCCESSFULLY!)

PRESS ANY KEY TO CONTINUE ... \_\_\_\_ (ENTER KEY)

#### HOLIDAY OFFERS MENU

- (a) ADD RECORD
- (b) DELETE RECORD
- (c) UPDATE RECORD
- (d) SEARCH HOLIDAY OFFER BY CATEGORY
- (e) SEARCH HOLIDAY OFFER BY COUNTRY
- (f) SAVE AND EXIT

THE OPTION CHOSEN IS: \_\_\_\_ (d)

(ERROR! YOU HAVE GOT TO CHOOSE ONE OF THE OPTION ABOVE FROM 'a' TO 'f')

PLEASE ENTER WHAT CATEGORY (Walking, Skiing, City break) BY SEARCH: \_\_  
(Skiing)

(ERROR – NO CATEGORY TYPE HAS BEEN FOUND)

PRESS ANY KEY TO CONTINUE TO RE-DO THE RESEARCH AGAIN . . . \_\_ (KEY)

(HOLIDAY OFFER FOUND)

DISPLAY HOLIDAY OFFERS

- 1- HOLIDAY\_ID (Must have 8 characters): \_\_ (NA000000)  
(Error, must have 8 characters)
- 2- COUNTRY DESTINATION: \_\_ (SWITZERLAND)
- 3- CATEGORY: \_\_ (Skiing)
- 4- DESCRIPTION: \_\_ (SNOW BOARDING SEASON)
- 5- START DATE: \_\_ (20/02/2023)
- 6- DURATION: \_\_ (10 DAYS)
- 7- TRAVEL PRICE: \_\_ (850 POUND)

PRESS ANY KEY TO BE BACK TO MAIN . . . \_\_ (ENTER KEY)

#### HOLIDAY OFFERS MENU

- (a) ADD RECORD
- (b) DELETE RECORD
- (c) UPDATE RECORD
- (d) SEARCH HOLIDAY OFFER BY CATEGORY
- (e) SEARCH HOLIDAY OFFER BY COUNTRY
- (f) SAVE AND EXIT

THE OPTION CHOSEN IS: \_\_ (e)

(ERROR! YOU HAVE GOT TO CHOOSE ONE OF THE OPTION ABOVE FROM 'a' TO 'f')

PLEASE ENETR YOUR RESEARCH BY COUNTRY DESTINATION: \_\_ (SWITZERLAND)



(HOLIDAY OFFER HAS BEEN LOCATED!)  
(ERROR – NO HOLIDAY OFFERS BEEN FOUND)

#### DISPLAY HOLIDAY OFFERS

- 1- HOLIDAY\_ID (Must have 8 characters): \_\_\_\_ (NA000000)  
(Error, must have 8 characters)
- 2- COUNTRY DESTINATION: \_\_\_\_ (SWITZERLAND)
- 3- CATEGORY: \_\_\_\_ (Skiing)
- 4- DESCRIPTION: \_\_\_\_ (SNOW BOARDING SEASON)
- 5- START DATE: \_\_\_\_ (20/02/2023)
- 6- DURATION: \_\_\_\_ (10 DAYS)
- 7- TRAVEL PRICE: \_\_\_\_ (850 POUND)

PRESS ANY KEY TO CONTINUE . . . \_\_\_\_ (ENTER KEY)

#### HOLIDAY OFFERS MENU

- (a) ADD RECORD
- (b) DELETE RECORD
- (c) UPDATE RECORD
- (d) SEARCH HOLIDAY OFFER BY CATEGORY
- (e) SEARCH HOLIDAY OFFER BY COUNTRY
- (f) SAVE AND EXIT

THE OPTION CHOSEN IS: \_\_\_\_ (f)

(ERROR! YOU HAVE GOT TO CHOOSE ONE OF THE OPTION ABOVE FROM 'a' TO 'f')

(HOLIDAY OFFERS BEEN SUCCESSFULLY SAVED!)

## DESIGN 2<sup>ND</sup> PROGRAM:

### CUSTOMER HOLIDAY BOOKING

#### CUSTOMER BOOKING MENU

- (a) DISPLAY HOLIDAY OFFERS
- (b) SEARCH HOLIDAY OFFER BY CATEGORY
- (c) SEARCH HOLIDAY OFFER BY COUNTRY
- (d) MAKE A HOLIDAY BOOKING
- (e) SAVE AND EXIT THE PROGRAM

PLEASE CHOOSE AN OPTION: \_\_\_\_ (a)  
(ERROR - YOU HAVE TO CHOOSE BETWEEN ('a' to 'f'))

#### HOLIDAY OFFERS RECORD

1- HOLIDAY\_ID (Must have 8 characters): \_\_\_\_ (NA000000)  
(Error, must have 8 characters)

2- COUNTRY DESTINATION: \_\_\_\_ (SWITZERLAND)

3- CATEGORY: \_\_\_\_ (Skiing)

4- DESCRIPTION: \_\_\_\_ (SNOW BOARDING SEASON)

5- START DATE: \_\_\_\_ (20/02/2023)

6- DURATION: \_\_\_\_ (10 DAYS)

7- TRAVEL PRICE: \_\_\_\_ (850 POUND)

PRESS ANY KEY TO CONTINUE... \_\_\_\_ (ENTER KEY)

#### CUSTOMER BOOKING MENU

- (a) DISPLAY HOLIDAY OFFERS
- (b) SEARCH HOLIDAY OFFER BY CATEGORY
- (c) SEARCH HOLIDAY OFFER BY COUNTRY
- (d) MAKE A HOLIDAY BOOKING
- (e) SAVE AND EXIT THE PROGRAM

CHOOSE AN OPTION: \_\_\_\_ (b)  
(ERROR - YOU HAVE TO CHOOSE BETWEEN ('a' to 'f'))

PLEASE ENTER WHAT CATEGORY (Walking, Skiing, City break) BY SEARCH: \_\_  
(Skiing)

(ERROR – NO CATEGORY TYPE HAS BEEN FOUND)

PRESS ANY KEY TO CONTINUE TO RE-DO THE RESEARCH AGAIN . . . \_\_ (KEY)

(HOLIDAY OFFER FOUND)

DISPLAY HOLIDAY OFFERS

8- HOLIDAY\_ID (Must have 8 characters): \_\_ (NA000000)  
(Error, must have 8 characters)

9- COUNTRY DESTINATION: \_\_ (SWITZERLAND)

10- CATEGORY: \_\_ (Skiing)

11- DESCRIPTION: \_\_ (SNOW BOARDING SEASON)

12- START DATE: \_\_ (20/02/2023)

13- DURATION: \_\_ (10 DAYS)

14- TRAVEL PRICE: \_\_ (850 POUND)

PRESS ANY KEY TO CONTINUE. . . \_\_ (ENTER KEY)

#### CUSTOMER BOOKING MENU

- (a) DISPLAY HOLIDAY OFFERS
- (b) SEARCH HOLIDAY OFFER BY CATEGORY
- (c) SEARCH HOLIDAY OFFER BY COUNTRY
- (d) MAKE A HOLIDAY BOOKING
- (e) SAVE AND EXIT THE PROGRAM

CHOOSE AN OPTION: \_\_ (c)

(ERROR - YOU HAVE TO CHOOSE BETWEEN ('a' to 'f'))

PLEASE ENETR YOUR RESEARCH BY COUNTRY DESTINATION: \_\_ (SWITZERLAND)

(HOLIDAY OFFER HAS BEEN LOCATED!)

(ERROR – NO HOLIDAY OFFERS BEEN FOUND)

### DISPLAY HOLIDAY OFFERS

8- HOLIDAY\_ID (Must have 8 characters): \_\_\_\_ (NA000000)  
(Error, must have 8 characters)

9- COUNTRY DESTINATION: \_\_\_\_ (SWITZERLAND)

10- CATEGORY: \_\_\_\_ (Skiing)

11- DESCRIPTION: \_\_\_\_ (SNOW BOARDING SEASON)

12- START DATE: \_\_\_\_ (20/02/2023)

13- DURATION: \_\_\_\_ (10 DAYS)

14- TRAVEL PRICE: \_\_\_\_ (850 POUND)

PRESS ANY KEY TO CONTINUE. . . \_\_\_\_ (ENTER KEY)

### CUSTOMER BOOKING MENU

- (a) DISPLAY HOLIDAY OFFERS
- (b) SEARCH HOLIDAY OFFER BY CATEGORY
- (c) SEARCH HOLIDAY OFFER BY COUNTRY
- (d) MAKE A HOLIDAY BOOKING
- (e) SAVE AND EXIT THE PROGRAM

CHOOSE AN OPTION: \_\_\_\_ (d)

(ERROR - YOU HAVE TO CHOOSE BETWEEN ('a' to 'f'))

### BOOKINGS MENU

- 1- BOOK A HOLIDAY
- 2- EXIT BOOKING

PLEASE CHOOSE AN OPTION (BETWEEN 1 & 2): \_\_\_\_ (1)

- 1. PLEASE ENTER CUSTOMER NAME: \_\_\_\_ (NAEEM)
- 2. PLEASE ENETR CUSTOMER EMAIL ADDRESS: \_\_\_\_ ([NAEEM@GMAIL.COM](mailto:NAEEM@GMAIL.COM))
- 3. HOLIDAY\_ID (MUST HAVE 8 CHARACTERS): \_\_\_\_ (NA000000)  
(ERROR- MUST HAVE 8 CHARACTERS)

**DISPLAY HOLIDAY OFFER CHOSEN VIA (HOLIDAY\_ID)**

- 1- HOLIDAY\_ID (Must have 8 characters): \_\_ (NA000000)  
(Error, must have 8 characters)
- 2- COUNTRY DESTINATION: \_\_ (SWITZERLAND)
- 3- CATEGORY: \_\_ (Skiing)
- 4- DESCRIPTION: \_\_ (SNOW BOARDING SEASON)
- 5- START DATE: \_\_ (20/02/2023)
- 6- DURATION: \_\_ (10 DAYS)
- 15- TRAVEL PRICE: \_\_ (850 POUND)

(HOLIDAY HAS BEEN SUCCEFFULY BOOKED!)

PRESS ANY KEY TO CONTINUE... \_\_ (ENTER KEY)

**CUSTOMER BOOKING MENU**

- (a) DISPLAY HOLIDAY OFFERS
- (b) SEARCH HOLIDAY OFFER BY CATEGORY
- (c) SEARCH HOLIDAY OFFER BY COUNTRY
- (d) MAKE A HOLIDAY BOOKING
- (e) SAVE AND EXIT THE PROGRAM

CHOOSE AN OPTION: \_\_ (e)

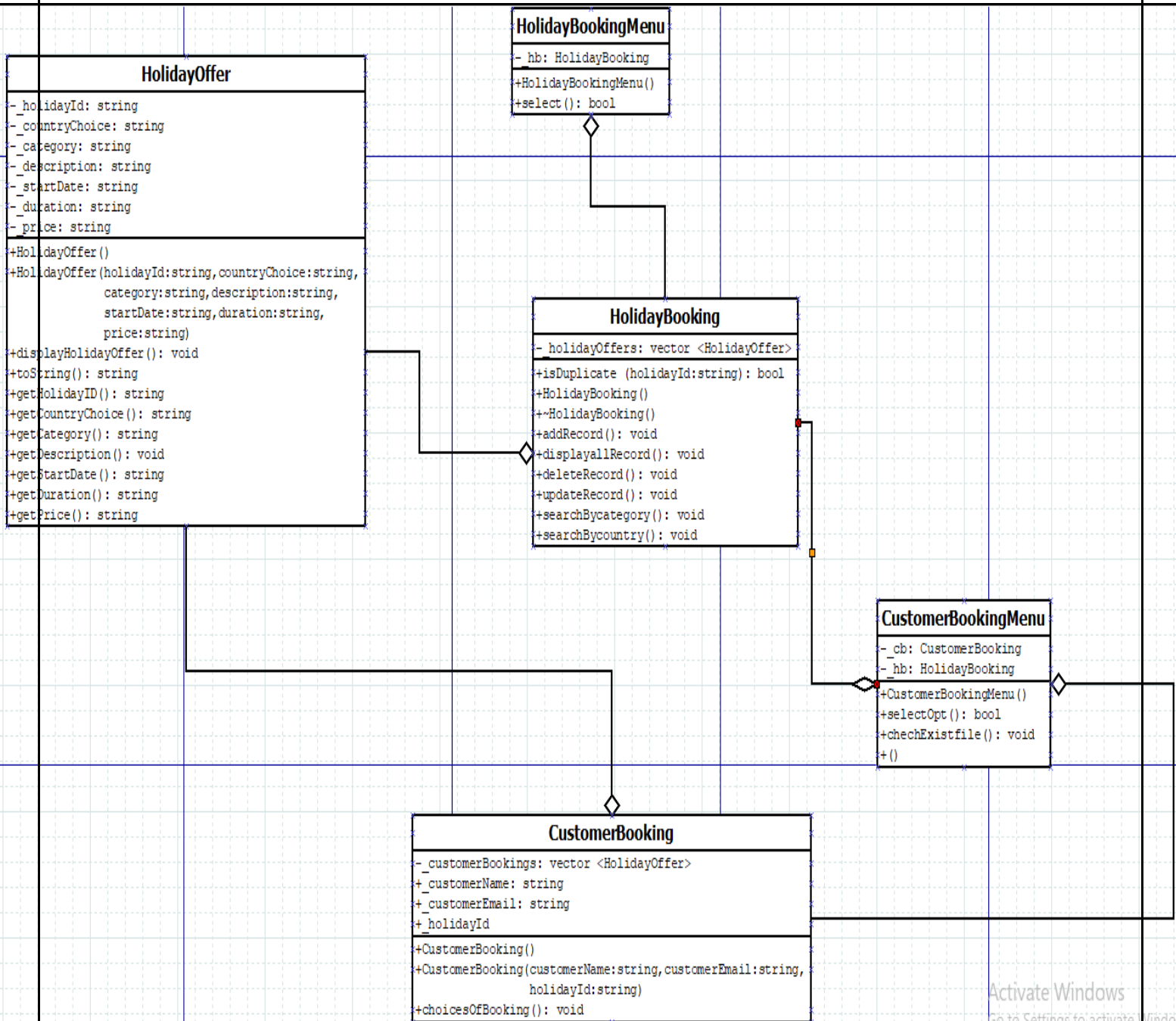
(ERROR - YOU HAVE TO CHOOSE BETWEEN ('a' to 'f'))

(BOOKINGS BEEN SUCCESSFULLY SAVED!)

(PROCESS EXITED AFTER 0.06 SECONDS WITH RETURN VALUE 0)

PRESS ANY KEY TO EXIT PROGRAM. . . \_\_ (ENTER KEY)

## Class diagram:



Activate Windows  
Go to Settings to activate Windows

## Test plan

### 1<sup>st</sup> program test plans

#### 1- Testing weather, it adds holiday offers:

step	Input data	Expected output	comment
1	NA000000 Spain 1 (Walking) Hot season weather 20/07/2022 7 days 800 pounds	Holiday_id: NA000000 Country: Spain Category: Walking Description: Hot season weather startDate: 20/07/2022 Duration: 7 days Price: 800 pounds  Press any key to continue...	Simple valid data Checking the text file weather, it got added to text file
2	00000	Error - number of characters must be 8 so it requires 8 characters.	Lower boundary
3	Na00000000	Error - 8 characters required	Upper boundary
4	Na00000000	Holiday_id: Na000000	Simple Valid data
5	<blank line>	Error - no data entered	Must enter field with 8 characters
6	Spain	Country: Spain	Simple Valid data
7	1234	Country 1234	Wrong data type
8	Australia	Country Australia	Valid data as it has to be literally accurate.
9	<blank line>	Error - no data entered	Must enter field
10	1- (Walking) 2- (Skiing) 3- (City break)	Category: Walking Category: Skiing Category: city break	Simple Valid data
11	4	Error - (only 3 categories)	Upper boundary
12	0	Error - (must be between 1 and 3)	Lower boundary
13	<blank line>	Error - no data entered	Must enter field
14	Hot weather season	Description: hot weather season	Simple valid data
15	19k89jfh	Description: 19k89jfh	Literally Wrong data type
16	<blank line>	Error - no data entered	Must enter field
17	7 days	Duration: 7 days	Simple valid data
18	wwefxe	Duration: wwefxe	Literally wrong type data
19	<blank line>	Error - no data entered	Must enter field
20	800 pounds	Price: 800 pounds	Simple valid data
21	Hgy09n	Price: Hgy09n	Literally wrong data type
22	<blank line>	Error - no data entered	Must enter field
23	20/20/2022	startDate: 20/20/2022	Simple valid data
24	gdkwegf	startDate: gdkwegf	Literally wrong type data

## 2<sup>nd</sup> testing weather it updates holiday offer

step	Input data	Expected output	Comment
<u>1</u>	<p>Please enter which offer you want to update (from 0,1 to the end): 0</p> <p>Please re-enter new data to holiday offer</p> <p>Handy900 Brazil 3 (city break) Sunny golden season 20/08/2022 7 days 867.80 pounds</p>	<p>0.</p> <p>Holiday_id:NA000000 Country: Spain Category: walking Description: hot season weather startDate: 20/07/2022 duration: 10 days price: 790 pounds</p> <p>New Holiday offer</p> <p>Holiday_ID: Handy900 Country: Brazil Category: city break Description: sunny golden season Duration: 7 days Price: 867.80 pound</p> <p>Press any key to continue ...</p>	<p>SIMPLE VALID DATA</p> <p>Then we check the text file weather it got updated</p>
<u>2</u>	30	Error - number must be (0 to 20)	Upper Boundary
<u>3</u>	-1	Error - number must be (0 to 20)	Lower Boundary
<u>4</u>	0	<p>0. Holiday offer</p> <p>Holiday_id: NA000000 Country: Spain Category: walking Description: Hot weather season startDate: 10/07/2022 Duration: 10 days Price: 800 pounds</p>	Simple valid data
<u>5</u>	<p>Please re-enter new data to holiday offer</p> <p>Handy900 Brazil 3 (city break) Sunny golden season 20/08/2022 7 days 867.80 pounds</p>	<p>New Holiday offer</p> <p>Holiday_ID: Handy900 Country: Brazil Category: city break Description: sunny golden season startDate: 20/08/2022 Duration: 7 days Price: 867.80 pound</p>	Simple valid data



### 3<sup>rd</sup> testing weather it deletes a holiday offer

<u>Step</u>	<u>Input data</u>	<u>Expected output</u>	<u>comment</u>
<u>1</u>	(a) Add a record (b) Display all records (c) update Particular record (d) search by category (e) search by country (f) delete Particular record (g) save and stop the  Select option: f  Please enter which offer you want to update (from 0,1 to the end): 0	Holiday offer 0. Holiday_id: NA000000 Country: Spain Category: walking Description: Hot weather season startDate: 10/07/2022 Duration: 10 days Price: 800 pounds  Holiday offer been removed!	Simple valid data Then we check in text file if it been deleted there as well
<u>2</u>	30	Error - number must be (0 to 20)	Upper boundary
<u>3</u>	-1	Error - number must be (0 to 20)	Lower boundary
<u>4</u>	2	Holiday offer 2 been removed	Simple valid data
<u>5</u>	<blank line>	Error - no data entered	Must enter field

### 4<sup>th</sup> testing weather it writes holiday Offer to a file

step	Input data	Expected output	comment
1	NA000000 Spain 1 (Walking) Hot season weather 20/07/2022 7 days 800 pounds  (a) Add a record (b) Display all records (c) update Particular record (d) search by category (e) search by country (f) delete Particular record (g) save and stop the program.  Select option: g	Holiday_id: NA000000 Country: Spain Category: Walking Description: Hot season weather startDate: 20/07/2022 Duration: 7 days Price: 800 pounds  Press any key to continue...  Holiday offer saved  Process exited after 4.4 seconds with return value of 0  Press any key to continue ...	Simple valid data          Once the program it saved and exited which means the offer has been written onto a text file. (holidayOffers.txt)
2	<blank line>	Error - no data entered	Must enter field
3	h	Error - character must be between (a & g)	Upper boundary
4	4	Error - character must be between (a & g)	Wrong data type

### 5<sup>th</sup> Testing weather it can do search by category

Step	Input data	Expected output	Comment
1	(a) Add a record (b) Display all records (c) update Particular record (d) search by category (e) search by country (f) delete Particular record (g) save and stop the  Select option: d  - Walking	Please enter what category (Walking, Skiing, City break) by search: Walking   Holiday_id: NA000000 Country: Spain Category: Walking Description: Hot season weather startDate: 20/07/2022 Duration: 7 days Price: 800 pounds  Press any key to continue...	Simple valid data
2	m	Error - character must be between (a & g)	Upper boundary
3	4	Error - character must be between (a & g)	Wrong data type
4	<blank line>	Error - no data entered	Must enter field
5	Bus trip	Error - category must be either (Walking, Skiing, City break)	Wrong data type

## 6<sup>th</sup> testing weather it can do search by Country

<u>step</u>	<u>Input data</u>	<u>Expected output</u>	<u>Comment</u>
<b>1</b>	(a) Add a record (b) Display all records (c) update Particular record (d) search by category (e) search by country (f) delete Particular record (g) save and stop the  Select option: e  - Spain	Please enter what country by search: Spain  Holiday_id: NA000000 Country: Spain Category: Walking Description: Hot season weather startDate: 20/07/2022 Duration: 7 days Price: 800 pounds  Press any key to continue...	Simple valid data
<b>2</b>	p	Error - character must be between ('a' & 'g')	Upper boundary
<b>3</b>	8	Error - character must be between ('a' & 'g')	Wrong data type
<b>4</b>	<blank line>	Error - no data entered	Must enter field
<b>5</b>	China	Error - no data found	Country destination Must be in scop or in one of holiday offers records

## 2<sup>nd</sup> program test plans

1- Testing weather, it displays holiday offers (reading the holiday offer from 1<sup>st</sup> program):

step	Input data	expected output	Comment
<u>1</u>	(a) Display all holiday Offers (b) search holiday offer by CATEGORY (c) search holiday offer by COUNTRY (d) booking holiday (e) stop the program.  Select an Option: a	Select an Option: a  Holiday_id: NA000000 Country: Spain Category: Walking Description: Hot season weather startDate: 20/07/2022 Duration: 7 days Price: 800 pounds  Press any key to continue...	Simple valid data
<u>2</u>	h	Error - (character must between 'a' to 'e')	Upper boundary
<u>3</u>	9	Error - (character must between 'a' to 'e')	Wrong type data
<u>4</u>	<blank line>	Error - no data entered	Must enter field

## 2- Testing it can do search by category

Step	Input data	Expected output	comment
<u>1</u>	(a) Display all holiday Offers (b) search holiday offer by CATEGORY (c) search holiday offer by COUNTRY (d) booking holiday (e) stop the program.  Select an option: b  - Skiing	Holiday_id: NA000000 Country: France Category: Skiing Description: Hot season weather startDate: 20/07/2022 Duration: 7 days Price: 800 pounds  Press any key to continue...	simple valid data
<u>2</u>	k	error - character must between (a to e)	Upper boundary
<u>3</u>	<blank line>	Error - no data entered	Must enter field
<u>4</u>	3	Error - character must between (a to e)	Wrong type data
<u>5</u>	Tour season	Error - category must be between (walking, skiing, city break)	Wrong type data

## 3<sup>rd</sup> testing weather it can search by country

step	Input data	Expected output	comment
1	(a) Display all holiday Offers (b) search holiday offer by CATEGORY (c) search holiday offer by COUNTRY (d) booking holiday (e) stop the program.  Select an option: c  - Spain	Holiday_id: 00000000 Country: Spain Category: Walking Description: Hot season weather startDate: 20/07/2022 Duration: 7 days Price: 800 pounds  Press any key to continue...	Simple valid data
2	j	error - character must between (a to e)	Upper boundary
3	5	Error - character must between (a to e)	Wrong type data
4	<blank line>	Error - no data entered	Must enter field
5	Mexico	Error - country data not found	Country destination must in the scope of holiday offers record

#### 4th Testing weather the user can book a holiday via holiday offers ID

step	Input data	Expected output	comment
1	(a) Display all holiday Offers (b) search holiday offer by CATEGORY (c) search holiday offer by COUNTRY (d) booking holiday (e) stop the program.  Select an option: d  1. Book holiday 2. Exit Booking  Choose an option (between 1 & 2): 1	Holiday Record  Holiday_id: 00000000 Country: Spain Category: Walking Description: Hot season weather startDate: 20/07/2022 Duration: 7 days Price: 800 pounds  Customer booking details  A- Holiday id (Must have eight character): 00000000 <<WELL DONE. valid data>>	Simple valid data

	<ul style="list-style-type: none"> <li>- 00000000</li> <li>- Richard handy</li> <li>- <a href="mailto:Rich999@gmail.com">Rich999@gmail.com</a></li> </ul>	<p>Holiday Record found</p> <p>Holiday_id: 00000000 Country: Spain Category: Walking Description: Hot season weather startDate: 20/07/2022 Duration: 7 days Price: 800 pounds</p> <p>B- Please Enter customer name: Richard handy</p> <p>C- Please Enter customer Email: <a href="mailto:Rich999@gmail.com">Rich999@gmail.com</a></p> <p>Holiday booked!</p> <p>Press any key to continue...</p>	
2	k	Error - character must between (a to e)	Upper boundary
3	7	Error - character must between (a to e)	Wrong type data
4	<blank line>	Error - no data entered	Must enter field
5	3	Error - must between (1 or 2)	Upper boundary
6	a	Error - must between (1 or 2)	Wrong data type
7	Hfej00jp	Error - id not found	Wrong id data
8	000000000000	Error - data must have 8 characters	Upper boundary
9	000	Error - data must have 8 characters	Lower boundary
10	<blank line>	Error - no data entered	Must enter field
11	jhgklo	B- Please Enter customer name: Jhgklo	Literally wrong data
12	Hhhhk1@@@hjajs.uk	C- Please Enter customer Email: Hhhhk1@@@hjajs.uk	Literally wrong data

## 5<sup>th</sup> Testing weather it writes it to new file holiday Booking

step	Input data	Expected output	Comment
1	<p>(a) Display all holiday Offers</p> <p>(b) search holiday offer by CATEGORY</p> <p>(c) search holiday offer by COUNTRY</p> <p>(d) booking holiday</p> <p>(e) stop the program.</p> <p>Select an option: e</p>	<p>Customer booking details</p> <p>A- Holiday id (Must have eight character): 00000000 &lt;&lt;WELL DONE. valid data&gt;&gt;</p> <p>B- Please Enter customer name: Richard handy</p> <p>C- Please Enter customer Email: <a href="mailto:Rich999@gmail.com">Rich999@gmail.com</a></p>	<p>Simple valid data</p> <p>Then we check the text file (holidaybooking.txt) weather it written in it.</p>

		<p>Holiday booked!</p> <p>Press any key to continue...</p> <p>Process exited after 4.4 seconds with return value of 0</p>	
2	k	error - character must between (a to e)	Upper boundary
3	7	Error - character must between (a to e)	Wrong type data
4	<blank line>	Error - no data entered	Must enter field

Test log for 1<sup>st</sup> program

### A-Adding holiday record

step	Actual output	Comment
1	<p>Holiday_id: NA000000</p> <p>Country: Spain</p> <p>Category: Walking</p> <p>Description: Hot season weather</p> <p>startDate: 20/07/2022</p> <p>Duration: 7 days</p> <p>Price: 800 pounds</p> <p>Press any key to continue...</p>	ok
2	<p>Holiday_id: Ra00</p> <p>Error - id must have 8 characters</p> <p>Press any key to continue...</p>	Validation of lower boundary need correcting
3	<p>Holiday_id: Ra000000</p> <p>Country:</p> <p>Category:</p> <p>Description:</p> <p>startDate:</p> <p>Duration:</p> <p>Price:</p> <p>Press any key to continue...</p>	ok

4	Holiday_id: Ra000000000000  Error - id must have 8 characters  Press any key to continue...	Validation of upper boundary need correcting
5	Holiday_id: Ra000000  Country: Category: Description: startDate: Duration: Price: Press any key to continue...	Validation needed to check that (country, category, description, startDate, duration, price) is entered

## B- Updating record test log

step	Actual output	comment
1	Records 0. Holiday_id:NA000000 Country: Spain Category: walking Description: hot season weather startDate: 20/07/2022 duration: 10 days price: 790 pounds  New Holiday offer  Holiday_ID: Handy900 Country: Brazil Category: city break Description: sunny golden season Duration: 7 days Price: 867.80 pound  Press any key to continue ...	ok
2	Holiday_ID: Handy9	Validation of lower boundary needs correcting.
3	Holiday_ID: Handy9000000000	Validation of upper boundary needs correcting.
4	Holiday_ID: Handy900 Country: Category: Description: Duration: Price:	Validation needed to check that (country, category, description, duration, price) are entered otherwise program won't let you execute the rest functionality.



## C- Delete record test log

step	Actual output	Comment
1	<p>Please enter which offer you want to update (from 0,1 to the end): 0</p> <p>0. Holiday offer</p> <p>Holiday_id: NA000000 Country: Spain Category: walking Description: Hot weather season startDate: 10/07/2022 Duration: 10 days Price: 800 pounds</p> <p>Holiday offer been removed!</p>	ok
2	30 (Error - number must be (0 to 20))	Validation of upper boundary needed
3	-1 (Error - number must be (0 to 20))	Validation of lower boundary needed
4	2 (Holiday offer 2 been removed)	ok
5	Please enter which offer you want to update (from 0,1 to the end):	Error - no data entered

## d-Search record via category test log

step	Actual output	Comment
1	<p>Please enter what category (Walking, Skiing, City break) by search: Walking</p> <p>Holiday record found!</p>	ok

	Holiday_id: NA000000 Country: Spain Category: Walking Description: Hot season weather startDate: 20/07/2022 Duration: 7 days Price: 800 pounds  Press any key to continue...	
2	Tour trip (error - category must be between (Walking-Skiing-City break)	Validation of data type needed
3	Please enter what category (Walking, Skiing, City break) by search:	Validation needed to check that category type is entered.

## e - Search record via country test log

Step	Actual output	Comment
1	Please enter what country by search: Spain  Holiday record found  Holiday_id: NA000000 Country: Spain Category: Walking Description: Hot season weather startDate: 20/07/2022 Duration: 7 days Price: 800 pounds  Press any key to continue...	ok
2	Please enter what country by search: (Error - no data entered)	Must enter field Validation needed to check country is entered
3	Please enter what country by search: China  Error - no such data found	Validation needed for only selected country from Records.
4	Please enter what country by search: Italy	ok

## 2<sup>nd</sup> program test log

### a- Display records test log

step	Actual output	Comment
1	Select an Option: a  Holiday_id: NA000000 Country: Spain Category: Walking Description: Hot season weather startDate: 20/07/2022 Duration: 7 days Price: 800 pounds  Press any key to continue...	ok
2	Select an Option: t Error - (character must between 'a' to 'e')	Upper boundary
3	Select an Option: 5 Error - (character must between 'a' to 'e')	Wrong type data
4	Select an Option: Error - no data entered	Must enter field

### b- Search by category test log

Step	Actual output	Comment
1	Please enter what category (Walking, Skiing, City break) by search: Skiing  Holiday Record found!  Holiday_id: RA000000 Country: Switzerland Category: Skiing Description: Snowboarding season startDate: 03/03/2022 Duration: 12 days Price: 800 pounds  Press any key to continue...	ok
2	bus trip (error - category must be between (Walking-Skiing-City break)	Validation of data type needed
3	Please enter what category (Walking, Skiing, City break) by search:	Validation needed to check that category type is entered.

### c- Search by country test log

step	Actual output	Comment
1	<p>Please enter what country by search: <b>Germany</b></p> <p>Holiday record found</p> <p>Holiday_id: NA000000  Country: <b>Germany</b>  Category: Walking  Description: Hot season weather  startDate: 20/07/2022  Duration: 7 days  Price: 800 pounds</p> <p>Press any key to continue...</p>	ok
2	<p>Please enter what country by search:</p> <p>(Error - no data entered)</p>	<p>Must enter field</p> <p>Validation needed to check country is entered</p>
3	<p>Please enter what country by search: <b>China</b></p> <p>Error - no such data found</p>	Validation needed for only selected country from Records.
4	<p>Please enter what country by search: <b>Italy</b></p>	ok

#### d- Booking holidays test log

step	Actual output	Comment
1	<p>(a) Display all holiday Offers  (b) search holiday offer by CATEGORY  (c) search holiday offer by COUNTRY  (d) booking holiday  (e) stop the program.</p> <p>Select an option: d</p> <p>1. Book holiday  2. Exit Booking</p> <p>Choose an option (between 1 &amp; 2): 1</p> <p>Customer booking details</p> <p>A- Holiday id (Must have eight character): 00000000  &lt;&lt;WELL DONE. valid data&gt;&gt;</p> <p>Holiday Record</p> <p>Holiday_id: 00000000  Country: Spain  Category: Walking  Description: Hot season weather  startDate: 20/07/2022  Duration: 7 days  Price: 800 pounds</p>	OK

	<p>B- Please Enter customer name: Richard handy</p> <p>C- Please Enter customer Email: <a href="mailto:Rich999@gmail.com">Rich999@gmail.com</a></p> <p>Holiday booked and written!</p> <p>Press any key to continue...</p>	
2	<p>1. Book holiday 2. Exit Booking</p> <p>Choose an option (between 1 &amp; 2): 6</p> <p>Error - must between (1 or 2)</p>	Validation of Upper boundary needs correcting
3	<p>1. Book holiday 2. Exit Booking</p> <p>Choose an option (between 1 &amp; 2): t</p> <p>Error - must between (1 or 2)</p>	Wrong data type
4	<p>Customer booking details</p> <p>A- Holiday id (Must have eight character): 00000frt</p> <p>Error - id not found</p>	Wrong id data need correcting
5	<p>Customer booking details</p> <p>A- Holiday id (Must have eight character): 00000000000</p> <p>Error - data must have 8 characters</p>	Validation of Upper boundary need correcting
6	<p>Customer booking details</p> <p>A- Holiday id (Must have eight character): 0000</p> <p>Error - data must have 8 characters</p>	Validation of Lower boundary need correcting
7	<p>Customer booking details</p> <p>A- Holiday id (Must have eight character):</p> <p>Error - no data entered</p>	Must enter field need correcting
8	<p>B- Please Enter customer name: Jhgklo</p>	Literally wrong data
9	<p>C- Please Enter customer Email: Hhhhk1@@@hjajs.uk.co</p>	Literally wrong data
10	<p>1. Book holiday 2. Exit Booking</p> <p>Choose an option (between 1 &amp; 2): 2</p> <p>Process exited after 68.39 seconds with return value 0</p>	OK

	Press any key to exit...	
--	--------------------------	--

Program 1 compiles and has basic functionality (easy to use user interface)

1<sup>st</sup> program functionality (compiles perfectly and easy to execute on interface 'terminal')

**Showing that 1<sup>st</sup> program works step by step on terminal (screenshot)**

Adding onto vector and write into a txt file:

Proving on How to add all 20 holiday offers record to a text file You would see that I used validation throughout the program below

Furthermore, every time when you add a record the program gets looped back to main menu for either add more record or do another functionality, although the object of this assignment is to add 20 holiday offer records to vector and write it to a txt file. And, I would like to say that I use string as data type for all my attributes to make the reading and the writing perfect even though using strings in vector so the program would execute perfectly (better than using array).

Then once finishing adding up the record we either carry on with other functionality or save and exit program and that would mean that all the record had been written onto txt file (holidayOffers)

```

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: A

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): RA000000000
Holiday id (Must have 8 character): RADD00
Holiday id (Must have 8 character): RA000000
<<WELL DONE !. valid data>>
=====

=====
Country choice: Ireland
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 2

<<City break, GREAT CHOICE !>>
=====
Description : <<Saint Patrick Holidays>>
=====

=====
Start date is: 17/March/2023
=====

=====
Duration of your stay (days): 4 days
=====

=====
Price (pound sterling) is: 478.89 pounds
=====

press any key for main menu...

```



```

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: a

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): NA11111111
Holiday id (Must have 8 character): NA000000
<<WELL DONE !. valid data>>
=====

=====
Country choice: Australia
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 3

<<Walking, GREAT CHOICE !>>
=====
Description : Beach walk around Queensland ends
=====

=====
Start date is: 12/august/2023
=====

=====
Duration of your stay (days): 20 days
=====

=====
Price (pound sterling) is: 220.65 pounds
=====

press any key for main menu..._

```

```

press any key for main menu...

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: a

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): NE000000
<<WELL DONE !. valid data>>
=====

=====
Country choice: India
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 2

<<City break, GREAT CHOICE !>>
=====
Description : Good Curry food and Zoo visit
=====

=====
Start date is: 29/May/2023
=====

=====
Duration of your stay (days): 25 days
=====

=====
Price (pound sterling) is: 1000 pounds
=====

press any key for main menu...

```

```

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: a

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): JA00000
Holiday id (Must have 8 character): JA000000
<<WELL DONE !. valid data>>
=====

=====
Country choice: Spain
=====

=====
Categoty list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 3

<<Walking, GREAT CHOICE !>>
=====
Description : golden beach of malagas
=====

=====
Start date is: 10/july/2023
=====

=====
Duration of your stay (days): 7 days
=====

=====
Price (pound sterling) is: 760.47 pounds
=====

press any key for main menu...

```

```

press any key for main menu...

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: a

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): DE000000
<<WELL DONE !. valid data>>
=====

=====
Country choice: France
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 1

<<Skiing, GREAT CHOICE !>>
=====
Description : <<Snow Boarding Season 2023>>
=====

=====
Start date is: 20/february/2023
=====

=====
Duration of your stay (days): 15 days
=====

=====
Price (pound sterling) is: 900.68 pounds
=====

press any key for main menu...

```

```

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: a

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): ZA0000000
Holiday id (Must have 8 character): ZA000000
<<WELL DONE !. valid data>>
=====

=====
Country choice: Italy
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 2

<<City break, GREAT CHOICE !>>
=====
Description : <<Christmas 2023 in Rome>>
=====

=====
Start date is: 21/december/2023
=====

=====
Duration of your stay (days): 6 days
=====

=====
Price (pound sterling) is: 689.89 pounds
=====

press any key for main menu..._

```

```

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: a

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): RAMIZ0000
Holiday id (Must have 8 character): RAMIZ000
<<WELL DONE !. valid data>>
=====

=====
Country choice: Greece
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 3

<<Walking, GREAT CHOICE !>>
=====
Description : <<Zante island walking down beaches>>
=====

=====
Start date is: 12/june/2023
=====

=====
Duration of your stay (days): 6 days
=====

=====
Price (pound sterling) is: 540.32 pounds
=====

press any key for main menu...

```

```

press any key for main menu...

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: a

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): DEB00000
<<WELL DONE !. valid data>>
=====

=====
Country choice: switzerland
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 1

<<Skiing, GREAT CHOICE !>>
=====
Description : <<best Skiing season 2023>>
=====

=====
Start date is: 07/March/2023
=====

=====
Duration of your stay (days): 5 days
=====

=====
Price (pound sterling) is: 800.33 pounds
=====

press any key for main menu...

```

```

press any key for main menu...

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: a

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): Raf99999
<<WELL DONE !. valid data>>
=====

=====
Country choice: USA
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 3

<<Walking, GREAT CHOICE !>>
=====
Description : <<Miami beach weekend away>>
=====

=====
Start date is: 13/07/2023
=====

=====
Duration of your stay (days): 4
=====

=====
Price (pound sterling) is: 500.65 pounds
=====

press any key for main menu...

```



```

press any key for main menu...

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: A

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): Naeem123
<<WELL DONE !. valid data>>
=====

=====
Country choice: Thailand
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 3

<<Walking, GREAT CHOICE !>>
=====
Description : <<islands visit & sea diving with turtules>>
=====

=====
Start date is: 10/August/2023
=====

=====
Duration of your stay (days): 18 days
=====

=====
Price (pound sterling) is: 800.34 pounds
=====

press any key for main menu...

```

```

press any key for main menu...

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: A

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): Handy123
<<WELL DONE !. valid data>>
=====

=====
Country choice: USA
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 3

<<Walking, GREAT CHOICE !>>
=====
Description : California golden beaches
=====

=====
Start date is: 16/june/2023
=====

=====
Duration of your stay (days): 10 days
=====

=====
Price (pound sterling) is: 1220.45 pounds
=====

press any key for main menu...

```

```

press any key for main menu...

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: A

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): king1234
<<WELL DONE !. valid data>>
=====

=====
Country choice: Canada
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 2

<<City break, GREAT CHOICE !>>
=====
Description : <<Niagara falls river>>
=====

=====
Start date is: 11/august/2023
=====

=====
Duration of your stay (days): 5
=====

=====
Price (pound sterling) is: 680 pounds
=====

press any key for main menu...

```

```

press any key for main menu...

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: A

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): Sage0000
<<WELL DONE !. valid data>>
=====

=====
Country choice: Jamaica
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 3

<<Walking, GREAT CHOICE !>>
=====
Description : <<Island visit & pina colada on the beach>>
=====

=====
Start date is: 20/07/2023
=====

=====
Duration of your stay (days): 10 days
=====

=====
Price (pound sterling) is: 1123.45 pounds
=====

press any key for main menu...

```

```

press any key for main menu...

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: A

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): 99999999
<<WELL DONE !. valid data>>
=====

=====
Country choice: Algeria
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 2

<<City break, GREAT CHOICE !>>
=====
Description : <<Capital city visiting>>
=====

=====
Start date is: 10/MAY/2023
=====

=====
Duration of your stay (days): 15 DAYS
=====

=====
Price (pound sterling) is: 800.45 pounds
=====

press any key for main menu...

```

```

press any key for main menu...

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: A

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): 11111111
<<WELL DONE !. valid data>>
=====

=====
Country choice: Morrocco
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 3

<<Walking, GREAT CHOICE !>>
=====
Description : <<Casablanca Events>>
=====

=====
Start date is: 12/august/2023
=====

=====
Duration of your stay (days): 4 days
=====

=====
Price (pound sterling) is: 500.45 pounds
=====

press any key for main menu...

```

```

press any key for main menu...

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: a

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): 22222222
<<WELL DONE !. valid data>>
=====

=====
Country choice: Tunisia
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 2

<<City break, GREAT CHOICE !>>
=====
Description : <<Capital city visit>>
=====

=====
Start date is: 13/09/2023
=====

=====
Duration of your stay (days): 5 days
=====

=====
Price (pound sterling) is: 500.36 pounds
=====

press any key for main menu...

```

```

press any key for main menu...

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: a

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): 33333333
<<WELL DONE !. valid data>>
=====

=====
Country choice: Algeria
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 3

<<Walking, GREAT CHOICE !>>
=====
Description : <<Sahara visiting>>
=====

=====
Start date is: 15/october/2023
=====

=====
Duration of your stay (days): 7 days
=====

=====
Price (pound sterling) is: 450.67 pounds
=====

press any key for main menu...

```



```

press any key for main menu...

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: A

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): 44444444
<<WELL DONE !. valid data>>
=====

=====
Country choice: South Africa
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 3

<<Walking, GREAT CHOICE !>>
=====
Description : <<walking down the beaches>>
=====

=====
Start date is: 10/09/2023
=====

=====
Duration of your stay (days): 10 days
=====

=====
Price (pound sterling) is: 700.45 pounds
=====

press any key for main menu...

```

```

press any key for main menu...

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: A

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): 55555555
<<WELL DONE !. valid data>>
=====

=====
Country choice: USA
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 2

<<City break, GREAT CHOICE !>>
=====
Description : <<New York official Visit>>
=====

=====
Start date is: 14/11/2023
=====

=====
Duration of your stay (days): 5 days
=====

=====
Price (pound sterling) is: 889.56 pounds
=====

press any key for main menu...

```

```

press any key for main menu...

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: A

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): 66666666
<<WELL DONE !. valid data>>
=====

=====
Country choice: Japan
=====

=====
Category list
=====

1. SKIING
2. City break
3. walking

Please enter what category: 2

<<City break, GREAT CHOICE !>>
=====
Description : <<Official tour around Tokyo>>
=====

=====
Start date is: 19/january/2023
=====

=====
Duration of your stay (days): 15 days
=====

=====
Price (pound sterling) is: 1123.67 pounds
=====

press any key for main menu...

```

HolidayOffers - Notepad

File Edit View

RA000000:Ireland:City break:<<Saint Patrick Holidays>>:17/March/2023:4 days:478.89 pounds  
 NA000000:Australia:Walking:Beach walk around Queensland ends:12/august/2023:20 days:220.65 pounds  
 NE000000:India:City break:Good Curry food and Zoo visit:29/May/2023:25 days:1000 pounds  
 JA000000:Spain:Walking:golden beach of malagas:10/july/2023:7 days:760.47 pounds  
 DE000000:France:Skiing:<<Snow Boarding Season 2023>>:20/february/2023:15 days:900.68 pounds  
 ZA000000:Italy:City break:<<Christmas 2023 in Rome>>:21/december/2023:6 days:689.89 pounds  
 RAMIZ000:Greece:Walking:<<Zante island walking down beaches>>:12/june/2023:6 days:540.32 pounds  
 DEB00000:switzerland:Skiing:<<best Skiing season 2023>>:07/March/2023:5 days:800.33 pounds  
 Raf99999:USA:Walking:<<Miami beach weekend away>>:13/07/2023:4:500.65 pounds  
 Naeem123:Thailand:Walking:<<islands visit & sea diving with turtles>>:10/August/2023:18 days:800.34 pounds  
 Handy123:USA:Walking:California golden beaches:16/june/2023:10 days:1220.45 pounds  
 king1234:Canada:City break:<<Niagara falls river>>:11/august/2023:5:680 pounds  
 Sage0000:Jamaica:Walking:<<Island visit & pina colada on the beach>>:20/07/2023:10 days:1123.45 pounds  
 9999999:Algeria:City break:<<Capital city visiting>>:10/MAY/2023:15 DAYS:800.45 pounds  
 1111111:Morocco:Walking:<<Casablanca Events>>:12/august/2023:4 days:500.45 pounds  
 2222222:Tunisia:City break:<<Capital city visit>>:13/09/2023:5 days:500.36 pounds  
 3333333:Algeria:Walking:<<Sahara visiting>>:15/october/2023:7 days:450.67 pounds  
 4444444:South Africa:Walking:<<walking down the beaches>>:10/09/2023:10 days:700.45 pounds  
 5555555:USA:City break:<<New York official Visit>>:14/11/2023:5 days:889.56 pounds  
 6666666:Japan:City break:<<Official tour around Tokyo>>:19/january/2023:15 days:1123.67 pounds

Displaying all holiday record on interface (terminal)

```
Please enter what category: 2
<<City break, GREAT CHOICE !>>
=====
Description : <<Saint Patrick Holidays>>
=====
=====
Start date is: 17/March/2023
=====
=====
Duration of your stay (days): 4 days
=====
=====
Price (pound sterling) is: 478.89 pounds
=====

press any key for main menu...

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: B

=====
Holiday_ID: RA000000
=====
Holiday destination: Ireland
=====
The Category is: City break
=====
Holiday description: <<Saint Patrick Holidays>>
=====
Holiday start day is : 17/March/2023
=====
Holiday duration will be: 4 days
=====
The travel cost will come to : 478.89 pounds
=====

press any key for main menu...
```

```
=====
Holiday booking menu
=====
```

- (a) Add a record
- (b) Display all records
- (c) update Particular record
- (d) search by category
- (e) search by country
- (f) delete Particular record
- (g) save and stop the program.

Select: b

```
=====
Holiday_ID: RA000000
=====
```

```
Holiday destination: Ireland
=====
```

```
The Category is: City break
=====
```

```
Holiday descripttion: <<Saint Patrick Holidays>>
=====
```

```
Holiday start day is : 17/March/2023
=====
```

```
Holiday duration will be: 4 days
=====
```

```
The travel cost will come to : 478.89 pounds
=====
```

```
=====
Holiday_ID: NA000000
=====
```

```
Holiday destination: Australia
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttion: Beach walk arounf Queensland ends
=====
```

```
Holiday start day is : 12/august/2023
=====
```

```
Holiday duration will be: 20 days
=====
```

```
The travel cost will come to : 220.65 pounds
=====
```

```
=====
Holiday_ID: NE000000
=====
```

```
Holiday destination: India
=====
```

```
The Category is: City break
=====
```

```
Holiday descripttion: Good Curry food and Zoo visit
=====
```

```
Holiday start day is : 29/May/2023
=====
```

```
Holiday duration will be: 25 days
=====
```

C:\Users\rarik\OneDrive\Desktop\real\Projects.Search\Project1.exe

Holiday\_ID: NE000000

Holiday destination: India

The Category is: City break

Holiday description: Good Curry food and Zoo visit

Holiday start day is : 29/May/2023

Holiday duration will be: 25 days

The travel cost will come to : 1000 pounds

Holiday\_ID: JA000000

Holiday destination: Spain

The Category is: Walking

Holiday description: golden beach of malagas

Holiday start day is : 10/july/2023

Holiday duration will be: 7 days

The travel cost will come to : 760.47 pounds

Holiday\_ID: DE000000

Holiday destination: France

The Category is: Skiing

Holiday description: <<Snow Boarding Season 2023>>

Holiday start day is : 20/february/2023

Holiday duration will be: 15 days

The travel cost will come to : 900.68 pounds

Holiday\_ID: ZA000000

Holiday destination: Italy

The Category is: City break

Holiday description: <<Christmas 2023 in Rome>>

Holiday start day is : 21/december/2023

C:\Users\frank\OneDrive\Desktop\realProjects\Search\Project1.exe

Holiday\_ID: ZA000000

Holiday destination: Italy

The Category is: City break

Holiday description: <<Christmas 2023 in Rome>>

Holiday start day is : 21/december/2023

Holiday duration will be: 6 days

The travel cost will come to : 689.89 pounds

Holiday\_ID: RAMIZ000

Holiday destination: Greece

The Category is: Walking

Holiday description: <<Zante island walking down beaches>>

Holiday start day is : 12/june/2023

Holiday duration will be: 6 days

The travel cost will come to : 540.32 pounds

Holiday\_ID: DEB00000

Holiday destination: switzerland

The Category is: Skiing

Holiday description: <<best Skiing season 2023>>

Holiday start day is : 07/March/2023

Holiday duration will be: 5 days

The travel cost will come to : 800.33 pounds

Holiday\_ID: Raf99999

Holiday destination: USA

The Category is: Walking

Holiday description: <<Miami beach weekend away>>

Holiday start day is : 13/07/2023



```
=====
Holiday_ID: Raf99999
=====
Holiday destination: USA
=====
The Category is: Walking
=====
Holiday descripttion: <<Miami beach weekend away>>
=====
Holiday start day is : 13/07/2023
=====
Holiday duration will be: 4
=====
The travel cost will come to : 500.65 pounds
=====

=====
Holiday_ID: Naeem123
=====
Holiday destination: Thailand
=====
The Category is: Walking
=====
Holiday descripttion: <<islands visit & sea diving with turtles>>
=====
Holiday start day is : 10/August/2023
=====
Holiday duration will be: 18 days
=====
The travel cost will come to : 800.34 pounds
=====

=====
Holiday_ID: Handy123
=====
Holiday destination: USA
=====
The Category is: Walking
=====
Holiday descripttion: California golden beaches
=====
Holiday start day is : 16/june/2023
=====
Holiday duration will be: 10 days
=====
The travel cost will come to : 1220.45 pounds
=====

=====
Holiday_ID: king1234
=====
Holiday destination: Canada
=====
The Category is: City break
=====
Holiday descripttion: <<Niagara falls river>>
=====
```

```
=====
Holiday_ID: king1234
=====
Holiday destination: Canada
=====
The Category is: City break
=====
Holiday descripttion: <<Niagara falls river>>
=====
Holiday start day is : 11/august/2023
=====
Holiday duration will be: 5
=====
The travel cost will come to : 680 pounds
=====

=====
Holiday_ID: Sage0000
=====
Holiday destination: Jamaica
=====
The Category is: Walking
=====
Holiday descripttion: <<Island visit & pina colada on the beach>>
=====
Holiday start day is : 20/07/2023
=====
Holiday duration will be: 10 days
=====
The travel cost will come to : 1123.45 pounds
=====

=====
Holiday_ID: 99999999
=====
Holiday destination: Algeria
=====
The Category is: City break
=====
Holiday descripttion: <<Capital city visiting>>
=====
Holiday start day is : 10/MAY/2023
=====
Holiday duration will be: 15 DAYS
=====
The travel cost will come to : 800.45 pounds
=====

=====
Holiday_ID: 11111111
=====
Holiday destination: Morrocco
=====
The Category is: Walking
=====
Holiday descripttion: <<Casablanca Events>>
=====
```

```
=====
Holiday_ID: 11111111
=====
Holiday destination: Morrocco
=====
The Category is: Walking
=====
Holiday descripttion: <<Casablanca Events>>
=====
Holiday start day is : 12/august/2023
=====
Holiday duration will be: 4 days
=====
The travel cost will come to : 500.45 pounds
=====

=====
Holiday_ID: 22222222
=====
Holiday destination: Tunisia
=====
The Category is: City break
=====
Holiday descripttion: <<Capital city visit>>
=====
Holiday start day is : 13/09/2023
=====
Holiday duration will be: 5 days
=====
The travel cost will come to : 500.36 pounds
=====

=====
Holiday_ID: 33333333
=====
Holiday destination: Algeria
=====
The Category is: Walking
=====
Holiday descripttion: <<Sahara visiting>>
=====
Holiday start day is : 15/october/2023
=====
Holiday duration will be: 7 days
=====
The travel cost will come to : 450.67 pounds
=====

=====
Holiday_ID: 44444444
=====
Holiday destination: South Africa
=====
The Category is: Walking
=====
Holiday descripttion: <<walking down the beaches>>
=====
```

RA000000:Ireland:City break:<<Saint Patrick Holidays>>:17/March/2023:4 days:478.89 pounds  
 NA000000:Australia:Walking:Beach walk around Queensland ends:12/august/2023:20 days:220.65 pounds  
 NE000000:India:City break:Good Curry food and Zoo visit:29/May/2023:25 days:1000 pounds  
 JA000000:Spain:Walking:golden beach of malagas:10/july/2023:7 days:760.47 pounds  
 DE000000:France:Skiing:<<Snow Boarding Season 2023>>:20/february/2023:15 days:900.68 pounds  
 ZA000000:Italy:City break:<<Christmas 2023 in Rome>>:21/december/2023:6 days:689.89 pounds  
 RAMI2000:Greece:Walking:<<Zante island walking down beaches>>:12/june/2023:6 days:540.32 pounds  
 DEB00000:switzerland:Skiing:<<best Skiing season 2023>>:07/March/2023:5 days:800.33 pounds  
 Raf99999:USA:Walking:<<Miami beach weekend away>>:13/07/2023:4:500.65 pounds  
 Naeem123:Thailand:Walking:<<islands visit & sea diving with turtles>>:10/August/2023:18 days:800.34 pounds  
 Handy123:USA:Walking:California golden beaches:16/june/2023:10 days:1220.45 pounds  
 king1234:Canada:City break:<<Niagara falls river>>:11/august/2023:5:680 pounds  
 Sage0000:Jamaica:Walking:<<Island visit & pina colada on the beach>>:20/07/2023:10 days:1123.45 pounds  
 99999999:Algeria:City break:<<Capital city visiting>>:10/MAY/2023:15 DAYS:800.45 pounds  
 11111111:Morocco:Walking:<<Casablanca Events>>:12/august/2023:4 days:500.45 pounds  
 22222222:Tunisia:City break:<<Capital city visit>>:13/09/2023:5 days:500.36 pounds  
 33333333:Algeria:Walking:<<Sahara visiting>>:15/october/2023:7 days:450.67 pounds  
 44444444:South Africa:Walking:<<walking down the beaches>>:10/09/2023:10 days:700.45 pounds  
 55555555:USA:City break:<<New York official Visit>>:14/11/2023:5 days:889.56 pounds  
 66666666:Japan:City break:<<Official tour around Tokyo>>:19/january/2023:15 days:1123.67 pounds

**a-** Showing how to update any record on terminal easily (basic functionality)

first it display all record which the program gives the user the chance to choose which one he/she would like to update, then select any reference number from (0 to 19) then following the steps to re fill the record with new data.(easy basic functionality)

Also at the end you could see that i have updated record 18 and the destination will be CROTIA

C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project1.exe

press any key for main menu...

=====

Holiday booking menu

=====

- (a) Add a record
- (b) Display all records
- (c) update Particular record
- (d) search by category
- (e) search by country
- (f) delete Particular record
- (g) save and stop the program.

Select: C

0.

=====

Holiday\_ID: RA000000

=====

Holiday destination: Ireland

=====

The Category is: City break

=====

Holiday descripttion: <<Saint Patrick Holidays>>

=====

Holiday start day is : 17/March/2023

=====

Holiday duration will be: 4 days

=====

The travel cost will come to : 478.89 pounds

=====

1.

=====

Holiday\_ID: NA000000

=====

Holiday destination: Australia

=====

The Category is: Walking

=====

Holiday descripttion: Beach walk arounf Queensland ends

=====

Holiday start day is : 12/august/2023

=====

Holiday duration will be: 20 days

=====

The travel cost will come to : 220.65 pounds

=====

2.

=====

Holiday ID: NE000000

```
2.
=====
Holiday_ID: NE000000
=====
Holiday destination: India
=====
The Category is: City break
=====
Holiday description: Good Curry food and Zoo visit
=====
Holiday start day is : 29/May/2023
=====
Holiday duration will be: 25 days
=====
The travel cost will come to : 1000 pounds
=====

3.
=====
Holiday_ID: JA000000
=====
Holiday destination: Spain
=====
The Category is: Walking
=====
Holiday description: golden beach of malagas
=====
Holiday start day is : 10/july/2023
=====
Holiday duration will be: 7 days
=====
The travel cost will come to : 760.47 pounds
=====

4.
=====
Holiday_ID: DE000000
=====
Holiday destination: France
=====
The Category is: Skiing
=====
Holiday description: <<Snow Boarding Season 2023>>
=====
Holiday start day is : 20/february/2023
=====
Holiday duration will be: 15 days
=====
The travel cost will come to : 900.68 pounds
=====
```

5.

Holiday\_ID: ZA000000

Holiday destination: Italy

The Category is: City break

Holiday description: <<Christmas 2023 in Rome>>

Holiday start day is : 21/december/2023

Holiday duration will be: 6 days

The travel cost will come to : 689.89 pounds

6.

Holiday\_ID: RAMIZ000

Holiday destination: Greece

The Category is: Walking

Holiday description: <<Zante island walking down beaches>>

Holiday start day is : 12/june/2023

Holiday duration will be: 6 days

The travel cost will come to : 540.32 pounds

7.

Holiday\_ID: DEB00000

Holiday destination: switzerland

The Category is: Skiing

Holiday description: <<best Skiing season 2023>>

Holiday start day is : 07/March/2023

Holiday duration will be: 5 days

The travel cost will come to : 800.33 pounds



8.

=====

Holiday\_ID: Raf99999

=====

Holiday destination: USA

=====

The Category is: Walking

=====

Holiday description: <<Miami beach weekend away>>

=====

Holiday start day is : 13/07/2023

=====

Holiday duration will be: 4

=====

The travel cost will come to : 500.65 pounds

=====

9.

=====

Holiday\_ID: Naeem123

=====

Holiday destination: Thailand

=====

The Category is: Walking

=====

Holiday description: <<islands visit & sea diving with turtles>>

=====

Holiday start day is : 10/August/2023

=====

Holiday duration will be: 18 days

=====

The travel cost will come to : 800.34 pounds

=====

10.

=====

Holiday\_ID: Handy123

=====

Holiday destination: USA

=====

The Category is: Walking

=====

Holiday description: California golden beaches

=====

Holiday start day is : 16/june/2023

=====

Holiday duration will be: 10 days

=====

The travel cost will come to : 1220.45 pounds

=====

```
11.
=====
Holiday_ID: king1234
=====
Holiday destination: Canada
=====
The Category is: City break
=====
Holiday description: <<Niagara falls river>>
=====
Holiday start day is : 11/august/2023
=====
Holiday duration will be: 5
=====
The travel cost will come to : 680 pounds
=====

12.
=====
Holiday_ID: Sage0000
=====
Holiday destination: Jamaica
=====
The Category is: Walking
=====
Holiday description: <<Island visit & pina colada on the beach>>
=====
Holiday start day is : 20/07/2023
=====
Holiday duration will be: 10 days
=====
The travel cost will come to : 1123.45 pounds
=====

13.
=====
Holiday_ID: 99999999
=====
Holiday destination: Algeria
=====
The Category is: City break
=====
Holiday description: <<Capital city visiting>>
=====
Holiday start day is : 10/MAY/2023
=====
Holiday duration will be: 15 DAYS
=====
The travel cost will come to : 800.45 pounds
=====
```

14.

```
=====
Holiday_ID: 11111111
=====
Holiday destination: Morrocco
=====
The Category is: Walking
=====
Holiday description: <<Casablanca Events>>
=====
Holiday start day is : 12/august/2023
=====
Holiday duration will be: 4 days
=====
The travel cost will come to : 500.45 pounds
=====
```

15.

```
=====
Holiday_ID: 22222222
=====
Holiday destination: Tunisia
=====
The Category is: City break
=====
Holiday description: <<Capital city visit>>
=====
Holiday start day is : 13/09/2023
=====
Holiday duration will be: 5 days
=====
The travel cost will come to : 500.36 pounds
=====
```

16.

```
=====
Holiday_ID: 33333333
=====
Holiday destination: Algeria
=====
The Category is: Walking
=====
Holiday description: <<Sahara visiting>>
=====
Holiday start day is : 15/october/2023
=====
Holiday duration will be: 7 days
=====
The travel cost will come to : 450.67 pounds
=====
```

C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project1.exe

17.

Holiday\_ID: 44444444

Holiday destination: South Africa

The Category is: Walking

Holiday description: <<walking down the beaches>>

Holiday start day is : 10/09/2023

Holiday duration will be: 10 days

The travel cost will come to : 700.45 pounds

18.

Holiday\_ID: 55555555

Holiday destination: USA

The Category is: City break

Holiday description: <<New York official Visit>>

Holiday start day is : 14/11/2023

Holiday duration will be: 5 days

The travel cost will come to : 889.56 pounds

19.

Holiday\_ID: 66666666

Holiday destination: Japan

The Category is: City break

Holiday description: <<Official tour around Tokyo>>

Holiday start day is : 19/january/2023

Holiday duration will be: 15 days

The travel cost will come to : 1123.67 pounds

Please select what record you want to update ( from 1, 2,..to the end ):\_

C:\Users\ranik\OneDrive\Desktop\realProjects\Search\Project1.exe

```
=====
Holiday destination: Japan
=====
The Category is: City break
=====
Holiday description: <<Official tour around Tokyo>>
=====
Holiday start day is : 19/january/2023
=====
Holiday duration will be: 15 days
=====
The travel cost will come to : 1123.67 pounds
=====

Please select what record you want to update ( from 1, 2,..to the end)

=====
Please Enter special holiday offer RECORDS:
=====

=====
Holiday id (Must have 8 character): 12345678
<<WELL DONE !. valid data>>
=====

=====
Country choice: Croatia
=====

=====
Category list
=====
1. SKIING
2. City break
3. walking

Please enter what category: 2

<<City break, GREAT CHOICE !>>

=====
Description : <<Croatia big festival Event>>
=====

=====
Start date is: 28/August/2023
=====

=====
Duration of your stay (days): 4 days
=====

=====
Price (pound sterling) is: 600.67 pounds
=====
press any key for main menu...
```

```
=====
Holiday_ID: 44444444
=====
```

```
Holiday destination: South Africa
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttion: <<walking down the beaches>>
=====
```

```
Holiday start day is : 10/09/2023
=====
```

```
Holiday duration will be: 10 days
=====
```

```
The travel cost will come to : 700.45 pounds
=====
```

```
=====
Holiday_ID: 12345678
=====
```

```
Holiday destination: Croatia
=====
```

```
The Category is: City break
=====
```

```
Holiday descripttion: <<Croatia big festival Event>>
=====
```

```
Holiday start day is : 28/August/2023
=====
```

```
Holiday duration will be: 4 days
=====
```

```
The travel cost will come to : 600.67 pounds
=====
```

```
=====
Holiday_ID: 66666666
=====
```

```
Holiday destination: Japan
=====
```

```
The Category is: City break
=====
```

```
Holiday descripttion: <<Official tour around Tokyo>>
=====
```

```
Holiday start day is : 19/january/2023
=====
```

```
Holiday duration will be: 15 days
=====
```

```
The travel cost will come to : 1123.67 pounds
=====
```

```
press any key for main menu..._
```

Showing functionality of deleting a holiday record works on this program

these pictures contain every step on deleting a record (from a vector) below:

at the end it show you that a record has been deleted! And it was CROTIA, AS WHEN it display the records, CROTIA destination won't be displayed from either the vector or txt file and then the program would loop you back to the main Menu to use any other functionality either search RECORD by country or category.

press any key for main menu...

```
=====
Holiday booking menu
=====
```

- (a) Add a record
- (b) Display all records
- (c) update Particular record
- (d) search by category
- (e) search by country
- (f) delete Particular record
- (g) save and stop the program.

Select: f

0.

```
=====
Holiday_ID: RA000000
=====
Holiday destination: Ireland
=====
The Category is: City break
=====
Holiday descripttion: <<Saint Patrick Holidays>>
=====
Holiday start day is : 17/March/2023
=====
Holiday duration will be: 4 days
=====
The travel cost will come to : 478.89 pounds
=====
```

1.

```
=====
Holiday_ID: NA000000
=====
Holiday destination: Australia
=====
The Category is: Walking
=====
Holiday descripttion: Beach walk arounf Queensland ends
=====
Holiday start day is : 12/august/2023
=====
Holiday duration will be: 20 days
=====
The travel cost will come to : 220.65 pounds
=====
```



2.

Holiday\_ID: NE000000

Holiday destination: India

The Category is: City break

Holiday description: Good Curry food and Zoo visit

Holiday start day is : 29/May/2023

Holiday duration will be: 25 days

The travel cost will come to : 1000 pounds

3.

Holiday\_ID: JA000000

Holiday destination: Spain

The Category is: Walking

Holiday description: golden beach of malagas

Holiday start day is : 10/july/2023

Holiday duration will be: 7 days

The travel cost will come to : 760.47 pounds

4.

Holiday\_ID: DE000000

Holiday destination: France

The Category is: Skiing

Holiday description: <<Snow Boarding Season 2023>>

Holiday start day is : 20/february/2023

Holiday duration will be: 15 days

The travel cost will come to : 900.68 pounds

5.

Holiday\_ID: ZA000000

Holiday destination: Italy

The Category is: City break

Holiday description: <<Christmas 2023 in Rome>>

Holiday start day is : 21/december/2023

Holiday duration will be: 6 days

The travel cost will come to : 689.89 pounds

6.

Holiday\_ID: RAMIZ000

Holiday destination: Greece

The Category is: Walking

Holiday description: <<Zante island walking down beaches>>

Holiday start day is : 12/june/2023

Holiday duration will be: 6 days

The travel cost will come to : 540.32 pounds

7.

Holiday\_ID: DEB00000

Holiday destination: switzerland

The Category is: Skiing

Holiday description: <<best Skiing season 2023>>

Holiday start day is : 07/March/2023

Holiday duration will be: 5 days

The travel cost will come to : 800.33 pounds

8.

Holiday\_ID: Raf99999

Holiday destination: USA

The Category is: Walking

Holiday description: <<Miami beach weekend away>>

Holiday start day is : 13/07/2023

Holiday duration will be: 4

The travel cost will come to : 500.65 pounds

9.

Holiday\_ID: Naeem123

Holiday destination: Thailand

The Category is: Walking

Holiday description: <<islands visit & sea diving with turtules>>

Holiday start day is : 10/August/2023

Holiday duration will be: 18 days

The travel cost will come to : 800.34 pounds

10.

Holiday\_ID: Handy123

Holiday destination: USA

The Category is: Walking

Holiday description: California golden beaches

Holiday start day is : 16/june/2023

Holiday duration will be: 10 days

The travel cost will come to : 1220.45 pounds

11.

Holiday\_ID: king1234

Holiday destination: Canada

The Category is: City break

Holiday description: <<Niagara falls river>>

Holiday start day is : 11/august/2023

Holiday duration will be: 5

The travel cost will come to : 680 pounds

12.

Holiday\_ID: Sage0000

Holiday destination: Jamaica

The Category is: Walking

Holiday description: <<Island visit & pina colada on the beach>>

Holiday start day is : 20/07/2023

Holiday duration will be: 10 days

The travel cost will come to : 1123.45 pounds

13.

Holiday\_ID: 99999999

Holiday destination: Algeria

The Category is: City break

Holiday description: <<Capital city visiting>>

Holiday start day is : 10/MAY/2023

Holiday duration will be: 15 DAYS

The travel cost will come to : 800.45 pounds

14.

Holiday\_ID: 11111111

Holiday destination: Morrocco

The Category is: Walking

Holiday description: <<Casablanca Events>>

Holiday start day is : 12/august/2023

Holiday duration will be: 4 days

The travel cost will come to : 500.45 pounds

15.

Holiday\_ID: 22222222

Holiday destination: Tunisia

The Category is: City break

Holiday description: <<Capital city visit>>

Holiday start day is : 13/09/2023

Holiday duration will be: 5 days

The travel cost will come to : 500.36 pounds

16.

Holiday\_ID: 33333333

Holiday destination: Algeria

The Category is: Walking

Holiday description: <<Sahara visiting>>

Holiday start day is : 15/october/2023

Holiday duration will be: 7 days

The travel cost will come to : 450.67 pounds

```
17.
=====
Holiday_ID: 44444444
=====
Holiday destination: South Africa
=====
The Category is: Walking
=====
Holiday description: <<walking down the beaches>>
=====
Holiday start day is : 10/09/2023
=====
Holiday duration will be: 10 days
=====
The travel cost will come to : 700.45 pounds
=====

18.
=====
Holiday_ID: 12345678
=====
Holiday destination: Croatia
=====
The Category is: City break
=====
Holiday description: <<Croatia big festival Event>>
=====
Holiday start day is : 28/August/2023
=====
Holiday duration will be: 4 days
=====
The travel cost will come to : 600.67 pounds
=====

19.
=====
Holiday_ID: 66666666
=====
Holiday destination: Japan
=====
The Category is: City break
=====
Holiday description: <<Official tour around Tokyo>>
=====
Holiday start day is : 19/january/2023
=====
Holiday duration will be: 15 days
=====
The travel cost will come to : 1123.67 pounds
=====
```

```
=====
Holiday start day is : 28/August/2023
=====
Holiday duration will be: 4 days
=====
The travel cost will come to : 600.67 pounds
=====

19.
=====
Holiday_ID: 66666666
=====
Holiday destination: Japan
=====
The Category is: City break
=====
Holiday description: <<Official tour around Tokyo>>
=====
Holiday start day is : 19/january/2023
=====
Holiday duration will be: 15 days
=====
The travel cost will come to : 1123.67 pounds
=====

select what record you want to delete ( from 1, 2,..to the end ):19
press any key for main menu...

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: b
```



C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project1.exe

```
=====
Holiday_ID: 33333333
=====
```

```
Holiday destination: Algeria
=====
```

```
The Category is: Walking
=====
```

```
Holiday description: <<Sahara visiting>>
=====
```

```
Holiday start day is : 15/october/2023
=====
```

```
Holiday duration will be: 7 days
=====
```

```
The travel cost will come to : 450.67 pounds
=====
```

```
=====
Holiday_ID: 44444444
=====
```

```
Holiday destination: South Africa
=====
```

```
The Category is: Walking
=====
```

```
Holiday description: <<walking down the beaches>>
=====
```

```
Holiday start day is : 10/09/2023
=====
```

```
Holiday duration will be: 10 days
=====
```

```
The travel cost will come to : 700.45 pounds
=====
```

```
=====
Holiday_ID: 66666666
=====
```

```
Holiday destination: Japan
=====
```

```
The Category is: City break
=====
```

```
Holiday description: <<Official tour around Tokyo>>
=====
```

```
Holiday start day is : 19/january/2023
=====
```

```
Holiday duration will be: 15 days
=====
```

```
The travel cost will come to : 1123.67 pounds
=====
```



RA000000:Ireland:City break:<<Saint Patrick Holidays>>:17/March/2023:4 days:478.89 pounds  
NA000000:Australia:Walking:Beach walk around Queensland ends:12/august/2023:20 days:2220.65 pounds  
NE000000:India:City break:Good Curry food and Zoo visit:29/May/2023:25 days:1000 pounds  
JA000000:Spain:Walking:golden beach of malagas:10/july/2023:7 days:760.47 pounds  
DE000000:France:Skiing:<<Snow Boarding Season 2023>>:20/february/2023:15 days:900.68 pounds  
ZA000000:Italy:City break:<<Christmas 2023 in Rome>>:21/december/2023:6 days:689.89 pounds  
RAMI2000:Greece:Walking:<<Zante island walking down beaches>>:12/june/2023:6 days:540.32 pounds  
DEB00000:switzerland:Skiing:<<best Skiing season 2023>>:07/March/2023:5 days:800.33 pounds  
Raf99999:USA:Walking:<<Miami beach weekend away>>:13/07/2023:4:500.65 pounds  
Naeem123:Thailand:Walking:<<islands visit & sea diving with turtles>>:10/August/2023:18 days:800.34 pounds  
Handy123:USA:Walking:California golden beaches:16/june/2023:10 days:1220.45 pounds  
king1234:Canada:City break:<<Niagara falls river>>:11/august/2023:5:680 pounds  
Sage0000:Jamaica:Walking:<<Island visit & pina colada on the beach>>:20/07/2023:10 days:1123.45 pounds  
99999999:Algeria:City break:<<Capital city visiting>>:10/MAY/2023:15 DAYS:800.45 pounds  
11111111:Morocco:Walking:<<Casablanca Events>>:12/august/2023:4 days:500.45 pounds  
22222222:Tunisia:City break:<<Capital city visit>>:13/09/2023:5 days:500.36 pounds  
33333333:Algeria:Walking:<<Sahara visiting>>:15/october/2023:7 days:450.67 pounds  
44444444:South Africa:Walking:<<walking down the beaches>>:10/09/2023:10 days:700.45 pounds  
66666666:Japan:City break:<<Official tour around Tokyo>>:19/january/2023:15 days:1123.67 pounds

Showing the user could search for any Record via CATEGORY: (Walking, Skiing, City break)

All the steps are so easy and basic functionality.

**First it displays all the record saved in txt File (vector) then follow easy step**

My example bellow that I use the variable **Walking**, look at the pictures coming. Then it would loop you back to main menu for other functionality of the program.

```
=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: d

Please enter what category (Walking, Skiing, City break) by search: Walking

=====
Holiday has been located
=====

=====
Holiday_ID: NA000000
=====
Holiday destination: Australia
=====
The Category is: Walking
=====
Holiday descripttion: Beach walk arounf Queensland ends
=====
Holiday start day is : 12/august/2023
=====
Holiday duration will be: 20 days
=====
The travel cost will come to : 220.65 pounds
=====

=====
Holiday has been located
=====

=====
Holiday_ID: JA000000
=====
Holiday destination: Spain
=====
The Category is: Walking
=====
Holiday descripttion: golden beach of malagas
=====
Holiday start day is : 10/july/2023
=====
Holiday duration will be: 7 days
```

C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project I.exe

```
=====
Holiday has been located
=====
```

```
=====
Holiday_ID: JA000000
=====
```

```
Holiday destination: Spain
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttion: golden beach of malagas
=====
```

```
Holiday start day is : 10/july/2023
=====
```

```
Holiday duration will be: 7 days
=====
```

```
The travel cost will come to : 760.47 pounds
=====
```

```
=====
Holiday has been located
=====
```

```
=====
Holiday_ID: RAMIZ000
=====
```

```
Holiday destination: Greece
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttion: <<Zante island walking down beaches>>
=====
```

```
Holiday start day is : 12/june/2023
=====
```

```
Holiday duration will be: 6 days
=====
```

```
The travel cost will come to : 540.32 pounds
=====
```

```
=====
Holiday has been located
=====
```

```
=====
Holiday_ID: Raf999999
=====
```

C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project1.exe

```
=====
Holiday has been located
=====
```

```
=====
Holiday_ID: Raf99999
=====
```

```
Holiday destination: USA
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttion: <<Miami beach weekend away>>
=====
```

```
Holiday start day is : 13/07/2023
=====
```

```
Holiday duration will be: 4
=====
```

```
The travel cost will come to : 500.65 pounds
=====
```

```
=====
Holiday has been located
=====
```

```
=====
Holiday_ID: Naeem123
=====
```

```
Holiday destination: Thailand
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttion: <<islands visit & sea diving with turtules>>
=====
```

```
Holiday start day is : 10/August/2023
=====
```

```
Holiday duration will be: 18 days
=====
```

```
The travel cost will come to : 800.34 pounds
=====
```

```
=====
Holiday has been located
=====
```

```
=====
Holiday_ID: Handy123
=====
```

```
Holiday destination: USA
=====
```

```
The Category is: Walking
=====
```

C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project1.exe

```
=====
Holiday has been located
=====
```

```
=====
Holiday_ID: Handy123
=====
```

```
Holiday destination: USA
=====
```

```
The Category is: Walking
=====
```

```
Holiday description: California golden beaches
=====
```

```
Holiday start day is : 16/june/2023
=====
```

```
Holiday duration will be: 10 days
=====
```

```
The travel cost will come to : 1220.45 pounds
=====
```

```
=====
Holiday has been located
=====
```

```
=====
Holiday_ID: Sage0000
=====
```

```
Holiday destination: Jamaica
=====
```

```
The Category is: Walking
=====
```

```
Holiday description: <<Island visit & pina colada on the beach>>
=====
```

```
Holiday start day is : 20/07/2023
=====
```

```
Holiday duration will be: 10 days
=====
```

```
The travel cost will come to : 1123.45 pounds
=====
```

```
=====
Holiday has been located
=====
```

```
=====
Holiday_ID: 11111111
=====
```

```
Holiday destination: Morrocco
=====
```

C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project1.exe

```
=====
Holiday has been located
=====

=====
Holiday_ID: 11111111
=====
Holiday destination: Morocco
=====
The Category is: Walking
=====
Holiday description: <<Casablanca Events>>
=====
Holiday start day is : 12/august/2023
=====
Holiday duration will be: 4 days
=====
The travel cost will come to : 500.45 pounds
=====

=====
Holiday has been located
=====

=====
Holiday_ID: 33333333
=====
Holiday destination: Algeria
=====
The Category is: Walking
=====
Holiday description: <<Sahara visiting>>
=====
Holiday start day is : 15/october/2023
=====
Holiday duration will be: 7 days
=====
The travel cost will come to : 450.67 pounds
=====

=====
Holiday has been located
=====

=====
Holiday_ID: 44444444
=====
Holiday destination: South Africa
=====
```

```
=====
Holiday has been located
=====
```

```
=====
Holiday_ID: 33333333
=====
```

```
Holiday destination: Algeria
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttton: <<Sahara visiting>>
=====
```

```
Holiday start day is : 15/october/2023
=====
```

```
Holiday duration will be: 7 days
=====
```

```
The travel cost will come to : 450.67 pounds
=====
```

```
=====
Holiday has been located
=====
```

```
=====
Holiday_ID: 44444444
=====
```

```
Holiday destination: South Africa
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttton: <<walking down the beaches>>
=====
```

```
Holiday start day is : 10/09/2023
=====
```

```
Holiday duration will be: 10 days
=====
```

```
The travel cost will come to : 700.45 pounds
=====
```

```
press any key for main menu...
```



d- Showing that the user can find any record via Country

All the pictures show easy functionality of the program and how it get executed.

I did my searching country via USA as country in order to extract the record that I want (holiday destination to USA)

C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project1.exe

```
=====
Holiday booking menu
=====
```

- (a) Add a record
- (b) Display all records
- (c) update Particular record
- (d) search by category
- (e) search by country
- (f) delete Particular record
- (g) save and stop the program.

Select: e

Please enter what country by search: USA

```
=====
Holiday has been located
=====
```

```
=====
Holiday_ID: Raf99999
=====
```

```
=====
Holiday destination: USA
=====
```

```
=====
The Category is: Walking
=====
```

```
=====
Holiday descripttion: <<Miami beach weekend away>>
=====
```

```
=====
Holiday start day is : 13/07/2023
=====
```

```
=====
Holiday duration will be: 4
=====
```

```
=====
The travel cost will come to : 500.65 pounds
=====
```

```
=====
Holiday has been located
=====
```

C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project1.exe

```
=====
Holiday_ID: Raf99999
=====
```

```
Holiday destination: USA
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttion: <<Miami beach weekend away>>
=====
```

```
Holiday start day is : 13/07/2023
=====
```

```
Holiday duration will be: 4
=====
```

```
The travel cost will come to : 500.65 pounds
=====
```

```
=====
Holiday has been located
=====
```

```
=====
Holiday_ID: Handy123
=====
```

```
Holiday destination: USA
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttion: California golden beaches
=====
```

```
Holiday start day is : 16/june/2023
=====
```

```
Holiday duration will be: 10 days
=====
```

```
The travel cost will come to : 1220.45 pounds
=====
```

```
press any key for main menu...
```

Showing how to finish executing the program after using it and printing the text file full of the record that I have added on to.

```
C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project1.exe

=====
Holiday booking menu
=====

(a) Add a record
(b) Display all records
(c) update Particular record
(d) search by category
(e) search by country
(f) delete Particular record
(g) save and stop the program.

Select: g

-----
Process exited after 2.991 seconds with return value 0
Press any key to continue . . .
```

```
HolidayOffers - Notepad

File Edit View

RA000000:Ireland:City break:<<Saint Patrick Holidays>>:17/March/2023:4 days:478.89 pounds
NA000000:Australia:Walking:Beach walk around Queensland ends:12/august/2023:20 days:2220.65 pounds
NE000000:India:City break:Good Curry food and Zoo visit:29/May/2023:25 days:1000 pounds
JA000000:Spain:Walking:golden beach of malagas:10/july/2023:7 days:760.47 pounds
DE000000:France:Skiing:<<Snow Boarding Season 2023>>:20/february/2023:15 days:900.68 pounds
ZA000000:Italy:City break:<<Christmas 2023 in Rome>>:21/december/2023:6 days:689.89 pounds
RAMIZ000:Greece:Walking:<<Zante island walking down beaches>>:12/june/2023:6 days:540.32 pounds
DEB00000:switzerland:Skiing:<<best Skiing season 2023>>:07/March/2023:5 days:800.33 pounds
Raf99999:USA:Walking:<<Miami beach weekend away>>:13/07/2023:4:500.65 pounds
Naeem123:Thailand:Walking:<<islands visit & sea diving with turtles>>:10/August/2023:18 days:800.34 pounds
Handy123:USA:Walking:California golden beaches:16/june/2023:10 days:1220.45 pounds
king1234:Canada:City break:<<Niagara falls river>>:11/august/2023:5:680 pounds
Sage0000:Jamaica:Walking:<<Island visit & pina colada on the beach>>:20/07/2023:10 days:1123.45 pounds
99999999:Algeria:City break:<<Capital city visiting>>:10/MAY/2023:15 DAYS:800.45 pounds
11111111:Morocco:Walking:<<Casablanca Events>>:12/august/2023:4 days:500.45 pounds
22222222:Tunisia:City break:<<Capital city visit>>:13/09/2023:5 days:500.36 pounds
33333333:Algeria:Walking:<<Sahara visiting>>:15/october/2023:7 days:450.67 pounds
44444444:South Africa:Walking:<<walking down the beaches>>:10/09/2023:10 days:700.45 pounds
66666666:Japan:City break:<<Official tour around Tokyo>>:19/january/2023:15 days:1123.67 pounds
88888888:Holland:City break:<<Official Amsterdam visit>> :13/March/2023:4 days:556.76 pounds
```

Program 2 compiles and has basic functionality

1<sup>st</sup> function is to display all the record from the first program

(Reading from VECTOR OF THE FIRST PROGRAM) then it loops you back to main menu to choose a different function. Look at the picture bellow (easy and basic steps)

```
=====
Customer booking menu
=====

(a) Display all holiday Offers
(b) search holiday offer by CATEGORY
(c) search holiday offer by COUNTRY
(d) booking holiday
(e) stop the program.

Select an Option: a

=====
Holiday offer Record
=====

=====
Holiday_ID: RA000000
=====
Holiday destination: Ireland
=====
The Category is: City break
=====
Holiday descripttion: <<Saint Patrick Holidays>>
=====
Holiday start day is : 17/March/2023
=====
Holiday duration will be: 4 days
=====
The travel cost will come to : 478.89 pounds
=====

=====
Holiday_ID: NA000000
=====
Holiday destination: Australia
=====
The Category is: Walking
=====
Holiday descripttion: Beach walk arounf Queensland ends
=====
Holiday start day is : 12/august/2023
=====
Holiday duration will be: 20 days
=====
The travel cost will come to : 2220.65 pounds
=====

=====
Holiday_ID: NE000000
=====
Holiday destination: India
=====
The Category is: City break
=====
Holiday descripttion: Good Curry food and Zoo visit
=====
```

C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project2.exe

```
=====
Holiday_ID: NE000000
```

```
=====
Holiday destination: India
```

```
=====
The Category is: City break
```

```
=====
Holiday description: Good Curry food and Zoo visit
```

```
=====
Holiday start day is : 29/May/2023
```

```
=====
Holiday duration will be: 25 days
```

```
=====
The travel cost will come to : 1000 pounds
=====
```

```
=====
Holiday_ID: JA000000
```

```
=====
Holiday destination: Spain
```

```
=====
The Category is: Walking
```

```
=====
Holiday description: golden beach of malagas
```

```
=====
Holiday start day is : 10/july/2023
```

```
=====
Holiday duration will be: 7 days
```

```
=====
The travel cost will come to : 760.47 pounds
=====
```

```
=====
Holiday_ID: DE000000
```

```
=====
Holiday destination: France
```

```
=====
The Category is: Skiing
```

```
=====
Holiday description: <<Snow Boarding Season 2023>>
```

```
=====
Holiday start day is : 20/february/2023
```

```
=====
Holiday duration will be: 15 days
```

```
=====
The travel cost will come to : 900.68 pounds
=====
```

```
=====
Holiday_ID: ZA000000
```

```
=====
Holiday destination: Italy
```

```
=====
The Category is: City break
```

```
=====
Holiday description: <<Christmas 2023 in Rome>>
=====
```

C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project2.exe

```
=====
Holiday_ID: ZA000000
=====
```

```
Holiday destination: Italy
=====
```

```
The Category is: City break
=====
```

```
Holiday descripttion: <<Chrismas 2023 in Rome>>
=====
```

```
Holiday start day is : 21/december/2023
=====
```

```
Holiday duration will be: 6 days
=====
```

```
The travel cost will come to : 689.89 pounds
=====
```

```
=====
Holiday_ID: RAMIZ000
=====
```

```
Holiday destination: Greece
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttion: <<Zante island walking down beaches>>
=====
```

```
Holiday start day is : 12/june/2023
=====
```

```
Holiday duration will be: 6 days
=====
```

```
The travel cost will come to : 540.32 pounds
=====
```

```
=====
Holiday_ID: DEB00000
=====
```

```
Holiday destination: switzerland
=====
```

```
The Category is: Skiing
=====
```

```
Holiday descripttion: <<best Skiing season 2023>>
=====
```

```
Holiday start day is : 07/March/2023
=====
```

```
Holiday duration will be: 5 days
=====
```

```
The travel cost will come to : 800.33 pounds
=====
```

```
=====
Holiday_ID: Raf99999
=====
```

```
Holiday destination: USA
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttion: <<Miami beach weekend away>>
=====
```



C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project2.exe

```
=====
Holiday_ID: Raf99999
=====
```

```
Holiday destination: USA
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttton: <<Miami beach weekend away>>
=====
```

```
Holiday start day is : 13/07/2023
=====
```

```
Holiday duration will be: 4
=====
```

```
The travel cost will come to : 500.65 pounds
=====
```

```
=====
Holiday_ID: Naeem123
=====
```

```
Holiday destination: Thailand
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttton: <<islands visit & sea diving with turtles>>
=====
```

```
Holiday start day is : 10/August/2023
=====
```

```
Holiday duration will be: 18 days
=====
```

```
The travel cost will come to : 800.34 pounds
=====
```

```
=====
Holiday_ID: Handy123
=====
```

```
Holiday destination: USA
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttton: California golden beaches
=====
```

```
Holiday start day is : 16/june/2023
=====
```

```
Holiday duration will be: 10 days
=====
```

```
The travel cost will come to : 1220.45 pounds
=====
```

```
=====
Holiday_ID: king1234
=====
```

```
Holiday destination: Canada
=====
```

```
The Category is: City break
=====
```

```
Holiday descripttton: <<Niagara falls river>>
=====
```

C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project2.exe

```
=====
Holiday_ID: king1234
```

```
=====
Holiday destination: Canada
```

```
=====
The Category is: City break
```

```
=====
Holiday descripttion: <<Niagara falls river>>
```

```
=====
Holiday start day is : 11/august/2023
```

```
=====
Holiday duration will be: 5
```

```
=====
The travel cost will come to : 680 pounds
=====
```

```
=====
Holiday_ID: Sage0000
```

```
=====
Holiday destination: Jamaica
```

```
=====
The Category is: Walking
```

```
=====
Holiday descripttion: <<Island visit & pina colada on the beach>>
```

```
=====
Holiday start day is : 20/07/2023
```

```
=====
Holiday duration will be: 10 days
```

```
=====
The travel cost will come to : 1123.45 pounds
=====
```

```
=====
Holiday_ID: 99999999
```

```
=====
Holiday destination: Algeria
```

```
=====
The Category is: City break
```

```
=====
Holiday descripttion: <<Capital city visiting>>
```

```
=====
Holiday start day is : 10/MAY/2023
```

```
=====
Holiday duration will be: 15 DAYS
```

```
=====
The travel cost will come to : 800.45 pounds
=====
```

```
=====
Holiday_ID: 11111111
```

```
=====
Holiday destination: Morrocco
```

```
=====
The Category is: Walking
```

```
=====
Holiday descripttion: <<Casablanca Events>>
=====
```

C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project2.exe

```
=====
Holiday_ID: 11111111
=====
```

```
Holiday destination: Morrocco
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttion: <<Casablanca Events>>
=====
```

```
Holiday start day is : 12/august/2023
=====
```

```
Holiday duration will be: 4 days
=====
```

```
The travel cost will come to : 500.45 pounds
=====
```

```
=====
Holiday_ID: 22222222
=====
```

```
Holiday destination: Tunisia
=====
```

```
The Category is: City break
=====
```

```
Holiday descripttion: <<Capital city visit>>
=====
```

```
Holiday start day is : 13/09/2023
=====
```

```
Holiday duration will be: 5 days
=====
```

```
The travel cost will come to : 500.36 pounds
=====
```

```
=====
Holiday_ID: 33333333
=====
```

```
Holiday destination: Algeria
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttion: <<Sahara visiting>>
=====
```

```
Holiday start day is : 15/october/2023
=====
```

```
Holiday duration will be: 7 days
=====
```

```
The travel cost will come to : 450.67 pounds
=====
```

```
=====
Holiday_ID: 44444444
=====
```

```
Holiday destination: South Africa
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttion: <<walking down the beaches>>
=====
```

C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project2.exe

```
=====
Holiday_ID: 44444444
=====
```

```
Holiday destination: South Africa
=====
```

```
The Category is: Walking
=====
```

```
Holiday description: <<walking down the beaches>>
=====
```

```
Holiday start day is : 10/09/2023
=====
```

```
Holiday duration will be: 10 days
=====
```

```
The travel cost will come to : 700.45 pounds
=====
```

```
=====
Holiday_ID: 66666666
=====
```

```
Holiday destination: Japan
=====
```

```
The Category is: City break
=====
```

```
Holiday description: <<Official tour around Tokyo>>
=====
```

```
Holiday start day is : 19/january/2023
=====
```

```
Holiday duration will be: 15 days
=====
```

```
The travel cost will come to : 1123.67 pounds
=====
```

```
=====
Holiday_ID: 88888888
=====
```

```
Holiday destination: Holland
=====
```

```
The Category is: City break
=====
```

```
Holiday description: <<Official Amsterdam visit>>
=====
```

```
Holiday start day is : 13/March/2023
=====
```

```
Holiday duration will be: 4 days
=====
```

```
The travel cost will come to : 556.76 pounds
=====
```

```
press any key to Continue...
```

Showing that the user on the second program could search record via category

**I used example (Skiing) look at the picture bellow as it would show you easy functionality of the program and when you are done with searching via category the program would take you back to the main menu to use different function you desire.**

```
=====
Holiday_ID: 88888888
=====
Holiday destination: Holland
=====
The Category is: City break
=====
Holiday description: <<Official Amsterdam visit>>
=====
Holiday start day is : 13/March/2023
=====
Holiday duration will be: 4 days
=====
The travel cost will come to : 556.76 pounds
=====

=====
Customer booking menuinue...
=====

(a) Display all holiday Offers
(b) search holiday offer by CATEGORY
(c) search holiday offer by COUNTRY
(d) booking holiday
(e) stop the program.

Select an Option: b

Please enter what category (Walking, Skiing, City break) by search: Skiing


=====
Holiday has been located
=====

=====
Holiday_ID: DE000000
=====
Holiday destination: France
=====
The Category is: Skiing
=====
Holiday description: <<Snow Boarding Season 2023>>
=====
Holiday start day is : 20/february/2023
=====
Holiday duration will be: 15 days
=====
The travel cost will come to : 900.68 pounds
=====
```

C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project2.exe

```
=====
Holiday_ID: DE000000
=====
```

```
Holiday destination: France
=====
```

```
The Category is: Skiing
=====
```

```
Holiday description: <<Snow Boarding Season 2023>>
=====
```

```
Holiday start day is : 20/february/2023
=====
```

```
Holiday duration will be: 15 days
=====
```

```
The travel cost will come to : 900.68 pounds
=====
```

```
=====
Holiday has been located
=====
```

```
=====
Holiday_ID: DEB00000
=====
```

```
Holiday destination: switzerland
=====
```

```
The Category is: Skiing
=====
```

```
Holiday description: <<best Skiing season 2023>>
=====
```

```
Holiday start day is : 07/March/2023
=====
```

```
Holiday duration will be: 5 days
=====
```

```
The travel cost will come to : 800.33 pounds
=====
```

```
press any key for main menu...
```

Showing that the program all the user to use also searching record via COUNTRY

**LOOK AT THE PICTURES BELLOW AND FOLLOW THE EASY BASIC STEP TO EXECUTE IT.**

**THEN WHEN THE SEARCHING VIA COUNTRY FINISH THE PROGRAM WOULD LOOP YOU BACK TO MAIN MENU TO USE DIFFERENT FUNCTION OF THE PROGRAM.**



```
=====
Customer booking menu
=====

(a) Display all holiday Offers
(b) search holiday offer by CATEGORY
(c) search holiday offer by COUNTRY
(d) booking holiday
(e) stop the program.

Select an Option: c

Please enter what country by search: Algeria
```

```
=====
Holiday has been located
=====

=====
Holiday_ID: 99999999
=====
Holiday destination: Algeria
=====
The Category is: City break
=====
Holiday descripttion: <<Capital city visiting>>
=====
Holiday start day is : 10/MAY/2023
=====
Holiday duration will be: 15 DAYS
=====
The travel cost will come to : 800.45 pounds
=====

=====
Holiday has been located
=====
```

C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project2.exe

```
=====
Holiday has been located
=====
```

```
=====
Holiday_ID: 99999999
=====
```

```
Holiday destination: Algeria
=====
```

```
The Category is: City break
=====
```

```
Holiday descripttion: <<Capital city visiting>>
=====
```

```
Holiday start day is : 10/MAY/2023
=====
```

```
Holiday duration will be: 15 DAYS
=====
```

```
The travel cost will come to : 800.45 pounds
=====
```

```
=====
Holiday has been located
=====
```

```
=====
Holiday_ID: 33333333
=====
```

```
Holiday destination: Algeria
=====
```

```
The Category is: Walking
=====
```

```
Holiday descripttion: <<Sahara visiting>>
=====
```

```
Holiday start day is : 15/october/2023
=====
```

```
Holiday duration will be: 7 days
=====
```

```
The travel cost will come to : 450.67 pounds
=====
```

```
press any key for main menu...
```

Showing that the user could make a booking via the holiday Records saved in txt file (vector)

it would be called (Holiday Booking) then it loops you back to main so that

You would be able to exit the program.

Follow the easy steps bellow (basic functionality)

C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project2.exe

```
=====
Customer booking menu
=====

(a) Display all holiday Offers
(b) search holiday offer by CATEGORY
(c) search holiday offer by COUNTRY
(d) booking holiday
(e) stop the program.

Select an Option: d

1. Book Holiday
2. Exit Booking
Choose an option (between 1 & 2): 1

=====
Customer booking details
=====

=====
A- Holiday id (Must have eight character): RA000000
<<WELL DONE !. valid data>>
=====

=====
B- Please Enter customer name: RICHARD HANDY
=====

C- Please Enter customer Email: RICHARD-90@gmail.com
=====

Holiday offer record
=====

=====
Holiday_ID: RA000000
=====
Holiday destination: Ireland
=====
The Category is: City break
=====
Holiday descripttion: <<Saint Patrick Holidays>>
=====
Holiday start day is : 17/March/2023
=====
Holiday duration will be: 4 days
=====
The travel cost will come to : 478.89 pounds
=====

Holiday Booking is Saved Successfully!
press any key for main menu...
```

C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project2.exe

```
=====
Customer booking details
=====

=====
A- Holiday id (Must have eight character): RA000000
<<WELL DONE !. valid data>>
=====

=====
B- Please Enter customer name: RICHARD HANDY
=====

=====
C- Please Enter customer Email: RICHARD-90@gmail.com
=====

=====
Holiday offer record
=====

=====
Holiday_ID: RA000000
=====
Holiday destination: Ireland
=====
The Category is: City break
=====
Holiday description: <<Saint Patrick Holidays>>
=====
Holiday start day is : 17/March/2023
=====
Holiday duration will be: 4 days
=====
The travel cost will come to : 478.89 pounds
=====

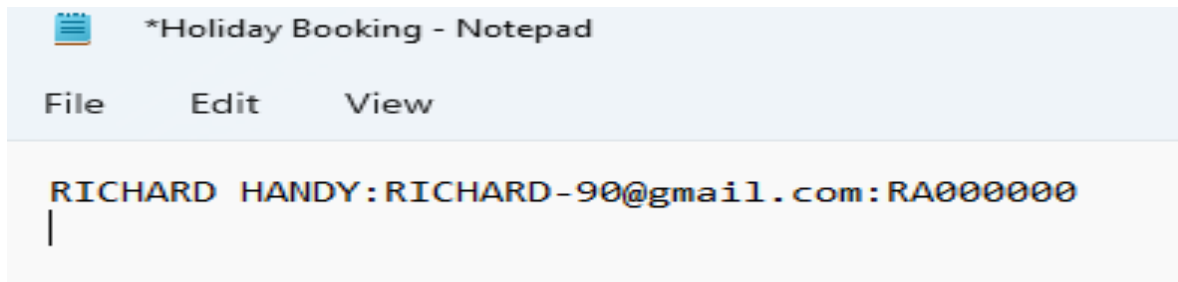
Holiday Booking is Saved Successfully!
press any key for main menu...

=====
Customer booking menu
=====

(a) Display all holiday Offers
(b) search holiday offer by CATEGORY
(c) search holiday offer by COUNTRY
(d) booking holiday
(e) stop the program.

Select an Option: e

-----
Process exited after 501.7 seconds with return value 0
Press any key to continue . . .
```



also, the user could make another booking and that booking be added to Holiday booking txt file. Check the pictures bellow

Select C:\Users\rafik\OneDrive\Desktop\realProjects.Search\Project2.exe

```

=====
Customer booking menu
=====

(a) Display all holiday Offers
(b) search holiday offer by CATEGORY
(c) search holiday offer by COUNTRY
(d) booking holiday
(e) stop the program.

Select an Option: d

1. Book Holiday
2. Exit Booking
Choose an option (between 1 & 2): 1

=====
Customer booking details
=====

=====
A- Holiday id (Must have eight character): NA000000
<<WELL DONE !. valid data>>
=====

=====
B- Please Enter customer name: RAMIZ
=====

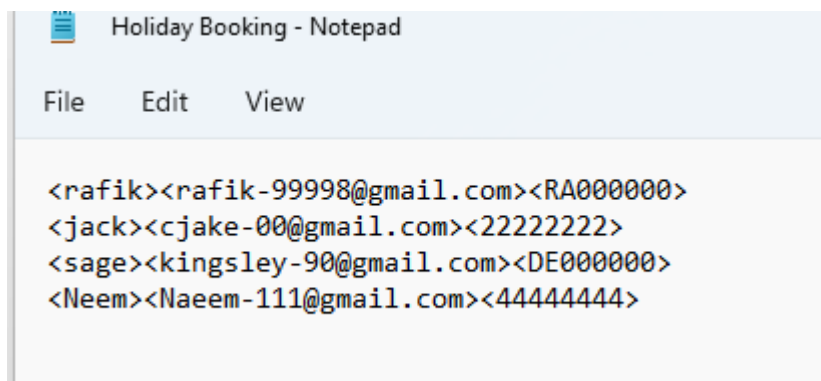
=====
C- Please Enter customer Email: RAMIZ-90@gmail.com
=====

press any key for main menu...

=====
Customer booking menu
=====

(a) Display all holiday Offers
(b) search holiday offer by CATEGORY
(c) search holiday offer by COUNTRY
(d) booking holiday
(e) stop the program.

Select an Option: e
```



```
<rafik><rafik-99998@gmail.com><RA000000>  
<jack><cjake-00@gmail.com><22222222>  
<sage><kingsley-90@gmail.com><DE000000>  
<Neem><Naeem-111@gmail.com><44444444>
```

**I really recommend running my program on terminal so that you could see how well it execute the projects (first and second)**



## Header files and implementation files 1

### First program

Header file:

```
/******  
 * HolidayOffer.h  
 * HolidayOffer class _holidayId , _countryChoice,  
   _category, _description, _startDate,  
   _duration, price  
 * RAFIK DEBOUB  
 * program design Assignment 02  
 * version 1  
 * Richard Handy  
 * *****/
```

```
#ifndef HolidayOffer_H  
#define HolidayOffer_H
```

```
#include <string>  
#include <vector>
```

```
using std::string;  
using std::vector;
```

```
class HolidayOffer{  
    private:  
  
        string _holidayId;  
        string _countryChoice;  
        string _category;  
        string _description;  
        string _startDate;  
        string _duration;  
        string _price;  
  
    public:  
  
        HolidayOffer();  
        HolidayOffer(string holidayId , string countryChoice,  
            string category, string description, string startDate  
                , string duration, string price );  
  
        void displayHolidayOffer();  
  
        string toString();  
        string getHolidayID();  
        string getCountryChoice();  
        string getCategory();  
        string getDescription();  
        string getStartDate();  
        string getDuration();  
        string getPrice();
```

```
};
```

```
//***** A container class for records
```

```
class HolidayBooking {  
    private :  
        std::vector<HolidayOffer> _holidayOffers;  
        bool isDuplicate(string holidayId);  
  
    public :  
        HolidayBooking();  
        ~HolidayBooking();  
  
        void addRecord();  
        void displayallRecord();  
        void deleteRecord();  
        void updateRecord();  
        void searchBycategory();  
        void searchBycountry();  
  
};
```

```
//***** the menu class for holiday booking
```

```
class HolidayBookingMenu {  
    private :  
        HolidayBooking _hb;  
  
    public :  
        HolidayBookingMenu();  
        bool select();  
        void checkExistfile();  
  
};
```

```
#endif
```

implementation file (cpp):

```
/******
```

```

* holidayOffer.cpp
* implementation of holiday offers class ID, country destination,
* category, description, duration, startDate, price
* Rafik deboub
* program design assignment
* version 1
* TEACHER RICHARD HANDY
* *****/

```

```

#include "holidayOffer.h"
#include <iostream>
#include <iomanip>
#include <string>
#include <fstream>
#include <sstream>
#include <cstdio>
#include <conio.h>
#include <stdlib.h>
#include <vector>

```

```

using std::string;
using std::cout;
using std::endl;
using std::setw;
using std::left;
using std::cin;
using std::ifstream;
using std::ofstream;
using std::getline;

```

```

//*****Methods for holiday offer class
// get attributes data from the keyboard

```

```

HolidayOffer::HolidayOffer() {

    cout << endl;
    cout << "=====\n";
    cout << "Please Enter special holiday offer RECORDS: \n";
    cout << "=====\n";

    cout << endl;

    cout << "=====\n";

do {

    cout << "Holiday id (Must have 8 character): ";
    std::getline(cin, _holidayId, '\n');

```

```

        } while(_holidayId.length() != 8 );{

            cout << "<<WELL DONE !. valid data>>"<<endl;
        }
        cout <<"=====\\n";

    cout <<endl;

    cout <<"\\n=====\\n";
    cout <<"Country choice: ";
    getline(cin, _countryChoice, '\\n');
    cout <<"=====\\n";

    cout <<endl;
    //cout <<"=====\\n";

    cout <<endl;

    int option;
do {

    cout <<"=====\\n";
    cout << "Categoty list\\n=====\\n\\n";
    cout <<"1. SKIING"<<endl;
    cout <<"2. City break"<<endl;
    cout <<"3. walking"<<endl;
    cout <<endl;

    cout << "Please enter what category: ";
    cin >> option;


    cin.ignore(10000, '\\n');
    cout <<endl;

    switch (option)
    {
        case 1:

            cout <<" <<Skiing, GREAT CHOICE !>>"<<endl;
            _category = "Skiing";

            break;

        case 2:

            cout <<" <<City break, GREAT CHOICE !>>"<< endl;
            _category = "City break";
            break;

        case 3:

            cout <<" <<Walking, GREAT CHOICE !>>"<<endl;
            _category = "Walking";
            break;
    }
}

```

```

        default:

            if (option != 1 && option != 2 && option != 3 ){
                cout <<"<<ERROR ! (select a choice between 1 and
3)\n\n>>";
            }
            break;

        }

    } while (option != 1 && option != 2 && option != 3);

    cout<<endl;
    cout <<"=====\n";

    cout <<"Description : ";
    getline(cin, _description, '\n');

    cout <<"=====\n";

    cout <<endl;

    cout <<"=====\n";

    cout <<"Start date is: ";
    getline(cin, _startDate, '\n');

    cout <<"=====\n";

    cout<<endl;

    cout <<"=====\n";

    cout <<"Duration of your stay (days): ";
    getline(cin, _duration, '\n');

    cout <<"=====\n";

    cout <<endl;

    cout <<"=====\n";

    cout <<"Price (pound sterling) is: ";
    getline(cin, _price, '\n');
    cout <<"=====\n";

}

//*****
//*****

// get attributes data from parameters

//constructor needed when creating a single Holiday record
HolidayOffer::HolidayOffer(string holidayId , string countryChoice,

```

```

        string category, string description, string startDate,
        string duration, string price):
        _holidayId (holidayId), _countryChoice(countryChoice),
        _category(category), _description(description),
        _startDate(startDate),
        _duration(duration), _price(price) {    }

//*****
//*****

// display holiday Offer records

void HolidayOffer:: displayHolidayOffer(){

        cout <<endl;

        cout <<
        "=====\\n";
        cout << " Holiday_ID: " << std::setw(8) << std::left << _holidayId
        << endl;
        cout <<
        "=====\\n";
        cout << " Holiday destination: " << std::setw(10) << std::left <<
        _countryChoice << endl;
        cout <<
        "=====\\n";
        cout << " The Category is: " << std::setw(15) << std::left <<
        _category << endl;
        cout <<
        "=====\\n";
        cout << " Holiday description: " << std::setw(10) << std::left <<
        _description <<endl;
        cout <<
        "=====\\n";
        cout << " Holiday start day is : " << std::setw(10) << std::left <<
        _startDate << endl;
        cout <<
        "=====\\n";
        cout << " Holiday duration will be: " << std::setw(10) << std::left <<
        _duration <<endl;
        cout <<
        "=====\\n";
        cout << " The travel cost will come to : " << std::setw(10) <<
        std::left<< _price <<endl;
        cout <<
        "=====\\n";

        cout <<endl;

}

```

```

//*****
//*****
// convert record to a string suitable to retrieve from a file

string HolidayOffer::toString () {

    return string(_holidayId + ':' + _countryChoice + ':' + _category + ':'
+ _description + ':' + _startDate + ':' + _duration + ':' + _price);

}

//*****
//*****

// return the holiday offer record

string HolidayOffer::getHolidayID() {return _holidayId; }
string HolidayOffer::getCountryChoice() { return _countryChoice; }
string HolidayOffer::getCategory() { return _category; }
string HolidayOffer::getDescription() {return _description; }
string HolidayOffer::getStartDate() { return _startDate; }
string HolidayOffer::getDuration() { return _duration; }
string HolidayOffer::getPrice() { return _price; }

//*****
//*****

//***** Methods for holidayBooking class

// read records from a file and store in a vector

HolidayBooking::HolidayBooking() {

    std::ifstream fin("HolidayOffers.txt");
    if(fin) {

        while(!fin.eof()) {
            string holidayId;
            getline(fin, holidayId, ':');

            string countryChoice;
            getline(fin, countryChoice, ':');

            string category;
            getline(fin, category, ':');

```

```

        string description;
        getline(fin, description, ':');

        string startDate;
        getline(fin, startDate, ':');

        string duration;
        getline(fin, duration, ':');

        string price;
        getline(fin, price);

                                if(!fin.eof() &&
(!isDuplicate(holidayId))){
        _holidayOffers.push_back(HolidayOffer(holidayId, countryChoice,
                                                category, description, startDate,
duration, price));
                                }
        }
        fin.close();
        cout <<endl;
    }
}

```

```

//*****
//*****
// convert each record in the vector to a string and write a file ( used two
methods one with for(unsigned...) and the other I put it as comment just to explore
more knowledge with for loops) as you can see below.

```

```

/*
HolidayBooking::~HolidayBooking() {

    std::ofstream fout("HolidayOffers.txt");

    for (HolidayOffer holidayOffer : _holidayOffers) {
        fout << holidayOffer.toString() <<endl;
    }
}

```



```

        fout.close();
        cout <<endl;
    }

    */

HolidayBooking::~HolidayBooking() {

    std::ofstream fout("HolidayOffers.txt");
    for (unsigned int i = 0; i < _holidayOffers.size(); i++) {
        fout << _holidayOffers[i].toString() << endl;
    }
    fout.close();
    cout <<endl;

}

//*****
//*****

// create record and add to file

void HolidayBooking::addRecord() {

    //    _holidayOffers.push_back(HolidayOffer());
    HolidayOffer holidayOffer;
    if(!isDuplicate(holidayOffer.getHolidayID())) {
        _holidayOffers.push_back(holidayOffer);

    }    // end if statement

}

//*****

// display each record in a vector

void HolidayBooking::displayallRecord () {
    for(HolidayOffer holidayOffer : _holidayOffers)
    {
        holidayOffer.displayHolidayOffer(); }
    cout <<endl;
}

//*****
//*****
// true if record is already in vector

bool HolidayBooking::isDuplicate(string holidayId) {
    for(HolidayOffer holidayOffer : _holidayOffers) {

```

```

        if(holidayId == holidayOffer.getHolidayID()) {
            cout << "ERROR - " << holidayId
                << " Record already exists.\n";
            return true;
        } // end if statement
    } // end for loop
    return false;
}

//*****method for update records

void HolidayBooking::updateRecord(){

    int i, opt;

    for(HolidayOffer holidayOffer : _holidayOffers) {
        cout << "\n\n" << i << ".    ";
        holidayOffer.displayHolidayOffer(); i++;
        cout << endl;
    }
    cout << "Please select what record you want to update ( from 1, 2,..to the
end ):";

    cin >> opt;
    cin.ignore(10000, '\n');
    _holidayOffers[opt-1] = HolidayOffer();
}

//*****
//*****method for delete particular record

void HolidayBooking::deleteRecord() {
    int i, opt;

    for(HolidayOffer holidayOffer : _holidayOffers) {
        cout << "\n\n" << i << ".    ";
        holidayOffer.displayHolidayOffer(); i++;
        cout << endl;
    }
    cout << " select what record you want to delete ( from 1, 2,..to the end
):";

    cin >> opt;
    _holidayOffers.erase(_holidayOffers.begin()+ opt - 1);
}

```

```
//*****method for searching by category*
```

```
void HolidayBooking::searchBycategory() {  
    cout<<endl;  
  
    cout<<"Please enter what category (Walking, Skiing, City break) by search:  
";  
  
    string category;  
    getline(cin, category);  
  
    for (HolidayOffer holidayOffer : _holidayOffers) {  
        if(category == holidayOffer.getCategory()) {  
            cout << "\n=====\\n";  
            cout << "Holiday has been  
located\\n=====\\n\\n";  
            cout << endl;  
            holidayOffer.displayHolidayOffer();  
        }  
        cout <<endl;  
    }  
}
```

```
//*****method for searching by country*
```

```
void HolidayBooking::searchBycountry() {  
    cout<<endl;  
  
    cout<<"Please enter what country by search: ";  
  
    string countryChoice;  
    getline(cin, countryChoice);  
  
    for (HolidayOffer holidayOffer : _holidayOffers) {  
        if(countryChoice == holidayOffer.getCountryChoice()) {  
            cout << "\n=====\\n";  
            cout << "Holiday has been  
located\\n=====\\n\\n";  
            holidayOffer.displayHolidayOffer();  
        }  
        cout <<endl;  
    }  
}
```

```

}

/*****method to check existing file with
record and read*/

```

```

void HolidayBookingMenu::checkExistfile(){

    fstream myFile;
    myFile.open("HolidayOffers.txt", ios::in); //READ

    if (myFile.is_open()){
        string _line;

        while (getline(myFile, _line)){
            cout <<_line <<endl;
        }
        myFile.close();
    } else {
        cout << "No Record File found";
    }
}

```

```

/*****Methods for
//holidayBookingMenu class
// constructor

```

```

HolidayBookingMenu::HolidayBookingMenu() { }

```

```

// display menu

```

```

bool HolidayBookingMenu::select() {

    system ("CLS");
    cout<<endl;
    char choice;
    do {

        cout << endl;
        cout << "\n===== \n";
        cout << "Holiday booking menu\n===== \n\n"
            << "(a) Check whether Record File exist\n"

```

```

<< "(b) Add a record\n"
<< "(c) Display all records\n"
<< "(d) update Particular record\n"
<< "(e) search by category\n"
<< "(f) search by country\n"
<< "(g) delete Particular record\n"
<< "(h) save and stop the program.\n\n"

<< "Select: ";

cin >> choice;
cin.ignore(10000, '\n');

switch (choice) {

    case 'A' :
    case 'a' :

        checkExistfile();
        cout << "\n\npress any key for main menu...";
        getch();
        break;

    case 'B' :
    case 'b' :
        _hb.addRecord();
        // system ("CLS");
        cout << "\n\npress any key for main menu...";
        getch();
        break;

    case 'C' :
    case 'c' :
        _hb.displayallRecord();
        cout << "\n\npress any key for main menu...";
        getch();
        break;

    case 'D' :
    case 'd' :
        _hb.updateRecord();
        cout << "press any key for main menu...";
        getch();
        break;

    case 'E' :
    case 'e' :
        _hb.searchBycategory();

        cout << "press any key for main menu...";
        getch();
        cin.ignore();
        break;

    case 'F' :
    case 'f' :

```

```

        _hb.searchBycountry();
        cout << "press any key for main menu...";
        getch();
        cin.ignore();
        break;

    case 'G' :
    case 'g' :
        _hb.deleteRecord();
        cout << "press any key for main menu...";
        getch();
        break;

    case 'H' :
    case 'h' :
        return false;

    default:

        cout<< "<<ERROR>> Please Enter eiter in 'a', 'b', 'c', 'd', 'e' , or
        'g' or in capital letters without the quotes.\n";
        cout << "press any key for main menu...";
        getch();

        break;
    }

    }while ( choice != 'h' && choice != 'H');
    return true;
}

```

Implementation file (main())

```
#include <iostream>
```

```
#include <string>
#include <fstream>

#include "holidayOffer.h"


int main (){

    HolidayBookingMenu holidayBookingMenu;

    holidayBookingMenu.select();

    //while (holidayBookingMenu.select()) {    } // just for trials

    return 0;
}
```

Header files and implementation files 2  
second program

Header file from 1<sup>st</sup> program:

```
/* *****  
 * HolidayOffer.h  
 * HolidayOffer class _holidayId , _countryChoice,  
 * _category, _description, _startDate,  
 * _duration, price  
 * RAFIK DEBOUB  
 * program design Assignment 02  
 * version 1  
 * Richard Handy  
 * *****/  
  
#ifndef HolidayOffer_H  
#define HolidayOffer_H  
  
#include <string>  
#include <vector>  
  
using std::string;  
using std::vector;  
  
class HolidayOffer{  
    private:  
  
        string _holidayId;  
        string _countryChoice;  
        string _category;  
        string _description;  
        string _startDate;  
        string _duration;  
        string _price;  
  
    public:  
  
        HolidayOffer();  
        HolidayOffer(string holidayId , string countryChoice,  
            string category, string description, string startDate  
                , string duration, string price );  
  
        void displayHolidayOffer();  
  
        string toString();  
        string getHolidayID();  
        string getCountryChoice();  
        string getCategory();  
        string getDescription();  
        string getStartDate();  
        string getDuration();  
        string getPrice();  
  
};
```



```
//***** A container class for records
```

```
class HolidayBooking {  
    private :  
        std::vector<HolidayOffer> _holidayOffers;  
        bool isDuplicate(string holidayId);  
  
    public :  
        HolidayBooking();  
        ~HolidayBooking();  
  
        void addRecord();  
        void displayallRecord();  
        void deleteRecord();  
        void updateRecord();  
        void searchBycategory();  
        void searchBycountry();  
  
};
```

```
//***** the menu class for holiday booking
```

```
class HolidayBookingMenu {  
    private :  
        HolidayBooking _hb;  
  
    public :  
        HolidayBookingMenu();  
        bool select();  
        void checkExistfile();  
  
};
```

```
#endif
```

Implementation file (from 1<sup>st</sup> program)

```
/******  
* holidayOffer.cpp  
* implementation of holiday offers class ID, country destination,  
* category, description, duration, startDate, price  
* Rafik deboub  
* program design assignment  
******/
```

```

* version 1
* TEACHER RICHARD HANDY
* *****/

#include "holidayOffer.h"
#include <iostream>
#include <iomanip>
#include <string>
#include <fstream>
#include <sstream>
#include <cstdio>
#include <conio.h>
#include <stdlib.h>
#include <vector>

using std::string;
using std::cout;
using std::endl;
using std::setw;
using std::left;
using std::cin;
using std::ifstream;
using std::ofstream;
using std::getline;

//*****Methods for holiday offer class
// get attributes data from the keyboard

HolidayOffer::HolidayOffer() {

    cout << endl;
    cout << "=====\n";
    cout << "Please Enter special holiday offer RECORDS: \n";
    cout << "=====\n";

    cout << endl;

    cout << "=====\n";

do {

    cout << "Holiday id (Must have 8 character): ";
    std::getline(cin, _holidayId, '\n');

    } while(_holidayId.length() != 8 );{

        cout << "<<WELL DONE !. valid data>>"<<endl;
    }
}

```

```

        cout << "=====\n";

    cout << endl;

    cout << "\n=====\n";
    cout << "Country choice: ";
    getline(cin, _countryChoice, '\n');
    cout << "=====\n";

    cout << endl;
    //cout << "=====\n";

    cout << endl;

    int option;
do {

    cout << "=====\n";
    cout << "Category list\n=====\n\n";
    cout << "1. SKIING" << endl;
    cout << "2. City break" << endl;
    cout << "3. walking" << endl;
    cout << endl;

    cout << "Please enter what category: ";
    cin >> option;

    cin.ignore(10000, '\n');
    cout << endl;

    switch (option)
    {
        case 1:

            cout << " <<Skiing, GREAT CHOICE !>>" << endl;
            _category = "Skiing";

            break;

        case 2:

            cout << " <<City break, GREAT CHOICE !>>" << endl;
            _category = "City break";
            break;

        case 3:

            cout << " <<Walking, GREAT CHOICE !>>" << endl;
            _category = "Walking";
            break;

        default:

            if (option != 1 && option != 2 && option != 3 ){
                cout << "<<ERROR ! (select a choice between 1 and
3)\n\n>>";
            }
    }
}

```

```

        }
        break;
    }

} while (option != 1 && option != 2 && option != 3);

cout<<endl;
cout <<"=====\n";

cout <<"Description : ";
getline(cin, _description, '\n');

cout <<"=====\n";

cout <<endl;

cout <<"=====\n";

cout <<"Start date is: ";
getline(cin, _startDate, '\n');

cout <<"=====\n";

cout<<endl;

cout <<"=====\n";

cout <<"Duration of your stay (days): ";
getline(cin, _duration, '\n');

cout <<"=====\n";

cout <<endl;

cout <<"=====\n";

cout <<"Price (pound sterling) is: ";
getline(cin, _price, '\n');
cout <<"=====\n";

}

//*****
//*****

// get attributes data from parameters

//constructor needed when creating a single Holiday record
HolidayOffer::HolidayOffer(string holidayId , string countryChoice,
    string category, string description, string startDate,
    string duration, string price):
    _holidayId (holidayId), _countryChoice(countryChoice),
    _category(category), _description(description),
    _startDate(startDate),

```

```

        _duration(duration), _price(price) {    }

//*****
//*****

// display holiday Offer records

void HolidayOffer:: displayHolidayOffer(){

    cout <<endl;

    cout <<
    "=====\\n";
    cout << " Holiday_ID: " << std::setw(8) << std::left << _holidayId
    << endl;
    cout <<
    "=====\\n";
    cout << " Holiday destination: " << std::setw(10) << std::left <<
    _countryChoice << endl;
    cout <<
    "=====\\n";
    cout << " The Category is: " << std::setw(15) << std::left <<
    _category << endl;
    cout <<
    "=====\\n";
    cout << " Holiday description: " << std::setw(10) << std::left <<
    _description <<endl;
    cout <<
    "=====\\n";
    cout << " Holiday start day is : " << std::setw(10) << std::left <<
    _startDate << endl;
    cout <<
    "=====\\n";
    cout << " Holiday duration will be: " << std::setw(10) << std::left <<
    _duration <<endl;
    cout <<
    "=====\\n";
    cout << " The travel cost will come to : " << std::setw(10) <<
    std::left<< _price <<endl;
    cout <<
    "=====\\n";

    cout <<endl;

}

//*****
//*****
// convert record to a string suitable to retrieve from a file

```

```

string HolidayOffer::toString () {

    return string(_holidayId + ':' + _countryChoice + ':' + _category + ':'
+ _description + ':' + _startDate + ':' + _duration + ':' + _price);

}

//*****
//*****

// return the holiday offer record

string HolidayOffer::getHolidayID() {return _holidayId; }
string HolidayOffer::getCountryChoice() { return _countryChoice; }
string HolidayOffer::getCategory() { return _category; }
string HolidayOffer::getDescription() {return _description; }
string HolidayOffer::getStartDate() { return _startDate; }
string HolidayOffer::getDuration() { return _duration; }
string HolidayOffer::getPrice() { return _price; }

//*****
//*****

//***** Methods for holidayBooking class

// read records from a file and store in a vector

HolidayBooking::HolidayBooking() {

    std::ifstream fin("HolidayOffers.txt");
    if(fin) {

        while(!fin.eof()) {
            string holidayId;
            getline(fin, holidayId, ':');

            string countryChoice;
            getline(fin, countryChoice, ':');

            string category;
            getline(fin, category, ':');

            string description;
            getline(fin, description, ':');

            string startDate;

```

```

        getline(fin, startDate, ':');

        string duration;
        getline(fin, duration, ':');

        string price;
        getline(fin, price);

                                if(!fin.eof() &&
(!isDuplicate(holidayId))){
        _holidayOffers.push_back(HolidayOffer(holidayId, countryChoice,
                                                category, description, startDate,
duration, price));
                                }
        }
        fin.close();
        cout <<endl;
    }
}

```

```

//*****
//*****
// convert each record in the vector to a string and write a file ( used two
methods one with for(unsigned...) and the other I put it as comment just to explore
more knowledge with for loops) as you can see below.

```

```

/*
HolidayBooking::~HolidayBooking() {

    std::ofstream fout("HolidayOffers.txt");

    for (HolidayOffer holidayOffer : _holidayOffers) {
        fout << holidayOffer.toString() <<endl;
    }
    fout.close();
    cout <<endl;
}

*/

```

```

HolidayBooking::~HolidayBooking() {

    std::ofstream fout("HolidayOffers.txt");
    for (unsigned int i = 0; i < _holidayOffers.size(); i++) {
        fout << _holidayOffers[i].toString() << endl;
    }
    fout.close();
    cout <<endl;

}

//*****
//*****

// create record and add to file

void HolidayBooking::addRecord() {

//    _holidayOffers.push_back(HolidayOffer());
    HolidayOffer holidayOffer;
    if(!isDuplicate(holidayOffer.getHolidayID())) {
        _holidayOffers.push_back(holidayOffer);

    }    // end if statement

}

//*****
//*****

// display each record in a vector

void HolidayBooking::displayallRecord () {
    for(HolidayOffer holidayOffer : _holidayOffers)
    {
        holidayOffer.displayHolidayOffer(); }
    cout <<endl;
}

//*****
//*****
// true if record is already in vector

bool HolidayBooking::isDuplicate(string holidayId) {
    for(HolidayOffer holidayOffer : _holidayOffers) {
        if(holidayId == holidayOffer.getHolidayID()) {
            cout << "ERROR - " << holidayId
                << " Record already exists.\n";
            return true;
        }    // end if statement
    }
}

```



```

        } // end for loop
        return false;
    }

//*****method for update records

void HolidayBooking::updateRecord(){
    int i, opt;

    for(HolidayOffer holidayOffer : _holidayOffers) {
        cout << "\n\n" << i << ".    ";
        holidayOffer.displayHolidayOffer(); i++;
        cout << endl;
    }
    cout << "Please select what record you want to update ( from 1, 2,..to the
end ):";
        cin >> opt;
        cin.ignore(10000, '\n');
        _holidayOffers[opt-1] = HolidayOffer();
    }

//*****method for delete particular record

void HolidayBooking::deleteRecord() {
    int i, opt;

    for(HolidayOffer holidayOffer : _holidayOffers) {
        cout << "\n\n" << i << ".    ";
        holidayOffer.displayHolidayOffer(); i++;
        cout << endl;
    }
    cout << " select what record you want to delete ( from 1, 2,..to the end
):";
        cin >> opt;
        _holidayOffers.erase(_holidayOffers.begin()+ opt - 1);
    }

//*****method for searching by category*

```

```

void HolidayBooking::searchBycategory() {
    cout<<endl;

    cout<<"Please enter what category (Walking, Skiing, City break) by search:
";

    string category;
    getline(cin, category);

    for (HolidayOffer holidayOffer : _holidayOffers) {
        if(category == holidayOffer.getCategory()) {

            cout << "\n===== \n";
            cout << "Holiday has been
located\n===== \n\n";
            cout << endl;
            holidayOffer.displayHolidayOffer();

        }
        cout <<endl;
    }
}

//*****method for searching by country*

void HolidayBooking::searchBycountry() {
    cout<<endl;

    cout<<"Please enter what country by search: ";

    string countryChoice;
    getline(cin, countryChoice);

    for (HolidayOffer holidayOffer : _holidayOffers) {

        if(countryChoice == holidayOffer.getCountryChoice()) {

            cout << "\n===== \n";
            cout << "Holiday has been
located\n===== \n\n";

            holidayOffer.displayHolidayOffer();

        }
        cout <<endl;
    }

}

//*****method to check existing file with

```

*record and read\*/*

```
void HolidayBookingMenu::checkExistfile(){

    fstream myFile;
    myFile.open("HolidayOffers.txt", ios::in); //READ

    if (myFile.is_open()){
        string _line;

        while (getline(myFile, _line)){
            cout <<_line <<endl;
        }
        myFile.close();
    } else {
        cout << "No Record File found";
    }
}
```

*//\*\*\*\*\*Methods for  
//holidayBookingMenu class  
// constructor*

```
HolidayBookingMenu::HolidayBookingMenu() { }
```

*// display menu*

```
bool HolidayBookingMenu::select() {

    system ("CLS");
    cout<<endl;
    char choice;
    do {

        cout << endl;
        cout <<"\n===== \n";
        cout << "Holiday booking menu\n===== \n\n"
            << "(a) Check whether Record File exist\n"
            << "(b) Add a record\n"
            << "(c) Display all records\n"
            << "(d) update Particular record\n"
            << "(e) search by category\n"
            << "(f) search by country\n"
```

```

<< "(g) delete Particular record\n"
<< "(h) save and stop the program.\n\n"

<< "Select: ";

cin >> choice;
cin.ignore(10000, '\n');

switch (choice) {

    case 'A' :
    case 'a' :

        checkExistfile();
        cout << "\n\npress any key for main menu...";
        getch();
        break;

    case 'B' :
    case 'b' :
        _hb.addRecord();
        // system("CLS");
        cout << "\n\npress any key for main menu...";
        getch();
        break;

    case 'C' :
    case 'c' :
        _hb.displayallRecord();
        cout << "\n\npress any key for main menu...";
        getch();
        break;

    case 'D' :
    case 'd' :
        _hb.updateRecord();
        cout << "press any key for main menu...";
        getch();
        break;

    case 'E' :
    case 'e' :
        _hb.searchBycategory();

        cout << "press any key for main menu...";
        getch();
        cin.ignore();
        break;

    case 'F' :
    case 'f' :

        _hb.searchBycountry();
        cout << "press any key for main menu...";
        getch();
        cin.ignore();

```

```

        break;

    case 'G' :
    case 'g' :
        _hb.deleteRecord();
        cout << "press any key for main menu...";
        getch();
        break;

    case 'H' :
    case 'h' :
        return false;

    default:

        cout<< "<<ERROR>> Please Enter eiter in 'a', 'b', 'c', 'd', 'e' , or
        'g' or in capital letters without the quotes.\n";
        cout << "press any key for main menu...";
        getch();

        break;

    }

    }while ( choice != 'h' && choice != 'H');
    return true;

}

```

Header file from 2<sup>nd</sup> program

```

/*****
*1- holidayBooking.h (header file)
*2- proram to store holiday special offer record
*3- Rafik deboub

*****/

```

```

#include "holidayOffer.h"

#ifndef HOLIDAYBOOKING_H
#define HOLIDAYBOOKING_H

#include <iostream>
#include <vector>

using namespace std;

/***** class for customer Booking */

class CustomerBooking {
private :
    std::vector<HolidayOffer> _customerBookings;
    string _customerName;
    string _customerEmail;
    string _holidayId;
    bool isDuplicate(string holidayId);
public :

    CustomerBooking();
    CustomerBooking(string customerName, string customerEmail, string
holidaId);

    void displayCustomerbooking();

    string getCustomerName();
    string getCustomeremail();
    string getHolidayID();
    void choicesOfBooking();

};

/*****class for CustomerBookingMenu */
class CustomerBookingMenu {
private :
    CustomerBooking _cb;
    HolidayBooking _hb;
public :

    CustomerBookingMenu();
    bool selectOpt();

};

#endif

```

Implementation file for 2<sup>nd</sup> program

```

/*****

```

```

*1- holidayBooking.cpp
*2- program to implement of data and make booking
*3- Rafik deboub
*****/

```

```

#include "holidayOffer.h"
#include "holidayBooking.h"

```

```

#include <iostream>
#include <iomanip>
#include <string>
#include <fstream>
#include <sstream>
#include <cstdio>
#include <conio.h>
#include <stdlib.h>
#include <vector>

```

```

using std::cout;
using std::cin;
using std::vector;
using std::string;
using std::endl;
using std::fstream;

```

```

//***** Methodes for customer Booking class

```

```

CustomerBooking::CustomerBooking() {

    std::ifstream fin("HolidayOffers.txt");

    if(fin) {
        while(!fin.eof()){
            string holidayId;
            getline(fin, holidayId, ':');

            string countryChoice;
            getline(fin, countryChoice, ':');

            string category;
            getline(fin, category, ':');

            string description;
            getline(fin, description, ':');

            string startDate;
            getline(fin, startDate, ':');
        }
    }
}

```

```

        string duration;
        getline(fin, duration, ':');

        string price;
        getline(fin, price);

        if(!fin.eof()) {

            _customerBookings.push_back(HolidayOffer(holidayId,
                                                        countryChoice, category,
description, startDate, duration,
                                                        price));

        }

    }
    fin.close();
    cout <<endl;
}

//***** get attribute from class customer booking

CustomerBooking::CustomerBooking(string customerName, string customerEmail,
                                   string holidayId) :_customerName(customerName),
                                                       _customerEmail(customerEmail), _holidayId(holidayId){
}

//**** method for Customer Booking class

void CustomerBooking::choicesOfBooking(){

    int _menuChoice;

    cout <<"\n\n1. Book Holiday\n";
    cout <<"2. Exit Booking";
    cout <<"\nChoose an option (between 1 & 2): ";
    cin >> _menuChoice;
    cin.ignore();
    cout <<endl;
    if ( _menuChoice == 1 ){

        do {
            cout <<endl;
            cout << "=====\n";
            cout << "Customer booking details\n";

```



```

        cout << "=====\n";
        cout << endl;
        cout << "=====\n";
        cout << "A- Holiday id (Must have eight character): ";
        std::getline(cin, _holidayId, '\n');

    } while(_holidayId.length() != 8 );{
        cout << "<<WELL DONE !. valid data>>"<<endl;}

        cout << "=====\n";
        cout << endl;
        cout << "=====\n";
        cout << "B- Please Enter customer name: ";
        getline(cin, _customerName);
        cout << "=====\n";

        cout<<endl;
        cout << "=====\n";
        cout << "C- Please Enter customer Email: ";
        getline(cin, _customerEmail);
        cout << "=====\n";
        cout << endl;
        //cin.ignore();
        string customerBook = '<' + _customerName + '>' + '<' +
        _customerEmail + '>' + '<' + _holidayId + '>';

        for(HolidayOffer _h0 : _customerBookings){

            if (_holidayId == _h0.getHolidayID()){

                //_h0.displayHolidayOffer();
                cout << endl;
                cout <<

"=====\n";
record\n";

                cout <<

"=====\n";
                cout << endl;
                _h0.displayHolidayOffer();
                std::ofstream file;
                std::ifstream myFile;
                myFile.open("Holiday Booking.txt");
                file.open("Holiday
Booking.txt", std::ios::app);

                if(myFile.is_open()){

                    file<< customerBook<<endl;
                    file.close();
                    myFile.close();
                    cout<<endl;
                }

            }

        }

        cout << "booking saved"<<endl;

```

```

        }

    }

    }else if(_menuChoice == 2){

        exit(1);

    }else {
        cout << "\n<<ERROR - PLEASE TRY AGAIN. USE VALID OPTION (1 OR
2)>>";
        choicesOfBooking();
    }
}

```

*//\*\*\*\*\* CustomerBookingMenu class*

```
CustomerBookingMenu::CustomerBookingMenu(){ }
```

```

bool CustomerBookingMenu::selectOpt() {

    system ("CLS");
    cout<<endl;
    char optChoice;
    do {

        cout << endl;
        cout << "\n===== \n";
        cout << "Customer booking menu\n===== \n\n"
            << "(a) Display all holiday Offers\n"
            << "(b) search holiday offer by CATEGORY\n"
            << "(c) search holiday offer by COUNTRY\n"
            << "(d) booking holiday\n"
            << "(e) stop the program.\n\n"

            << "Select an Option: ";

        cin >> optChoice;
        cin.ignore(10000, '\n');

        switch(optChoice) {

            case 'A':
            case 'a':

                cout << "\n===== \n";
                cout << "Holiday offer
Record\n===== \n\n";

```

```

        _hb.displayallRecord();
        cout << "\n\npress any key to Continue...";
        getch();
        system("CLS");
        break;

    case 'B' :
    case 'b' :
        _hb.searchBycategory();
        cout << "press any key for main menu...";
        getch();
        break;

    case 'C' :
    case 'c' :
        _hb.searchBycountry();
        cout << "press any key for main menu...";
        getch();
        break;

    case 'D':
    case 'd' :
        _cb.choicesOfBooking();
        cout << endl;
        cout << "press any key for main menu...";
        getch();
        break;

    case 'E':
    case 'e' :
        return false;

    default:

        cout << "<<ERROR>> Please Enter 'a', 'b', 'c', 'd'or 'e'
without the quotes.\n";

        cout << "press any key for main menu...";
        getch();
        break;

    }

}while (optChoice != 'e');

return true;

}

//***** the end

```

Implementation file for 2<sup>nd</sup> program (Main()):

```
/******  
* Main customer booking file  
* execute the 2nd program  
* Rafik Deboub  
* Richard Handy  
* verison 1  
*****/  
#include "holidayOffer.h"  
#include "holidayBooking.h"  
#include <iostream>  
  
/* run this program using the console pauser or add your own getch,  
system("pause") or input loop */  
  
using std::cout;  
using std::cin;  
using std::endl;  
using std::string;  
  
int main() {  
  
    CustomerBookingMenu customerBookingMenu;  
  
    customerBookingMenu.selectOpt();  
  
    return 0;  
}
```

## Evaluation Report

### 1-First and second Program:

When creating this program, I used what I learned from classes and lectures and lab session plus searching online to gain a greater understanding of how to go about approaching this code.

The initial step is the design where I was able to clearly outline the goal of the program. The next step is the test plan. This aided me in visualising where the system required validation as well as assist in overcoming errors.

When you first enter the program, the user is met with a menu with different functionality (queries). The queries range from a-h. The first option checks whether any records exist, and if they do, it will display all the current records.

The second option is the ability for the user to add a record. The user is prompted to enter all the necessary information which is the same as what is displayed from the first option. If the ID inputted is above 8 characters, the program will recognise this and prompt the user to enter an ID of 8 characters once again.

Similarly, to the first option, the third option displays all the records which includes the ID, country, category, dates, and price.

The third and fourth option provides the ability delete and update records, (updateRecord), (deleteRecord). Using the same loop for the previous method, the update record method allows the user to choose from a list of displayed records. From here the user can enter the ID of the desired record to update. They will then be prompted to enter the information for the newly updated record (ID, country, category, dates, and price). To delete a record, it is a similar process just without the succeeding information prompt.

Correspondingly to the second program, the first program also includes the ability to search by category and country. This is done to ensure that the user is not scrolling through mass amounts of data to update/delete records.

When entering the second program, the user is met with 4 options. I use the (displayAllRecord) method to read all the data which was implemented in the text file from the first

program. To ensure that there are no errors, if no file is found, a message is displayed explaining the lack of a file.

The second and third option is the (searchBycategory) and (searchBycountry). This method has inherited its functionality from the first program and allows the user to search through data from the text file through specified key words. Both methods are equipped with validation in the case that there are no records available.

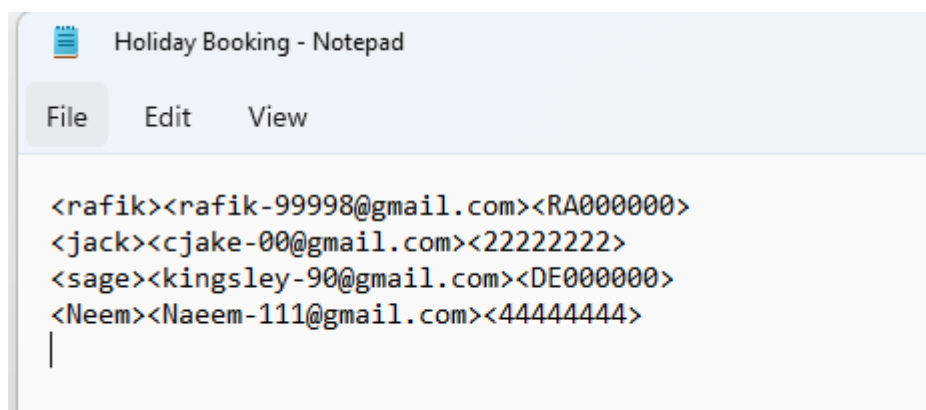
After the user has found their choice of country, they enter the ID of the desired booking and then they are given the option to book. The user is then prompted to enter their name and email address which is written into a new file of the second program called Holiday booking where the <name><email><holidayId> is displayed in that format. If no holiday ID is found, the program recognises this and prompts the user to try again.

Then once the booking has been successfully written and saved, the program would loop you back to the main menu to allow the user to exit the program after a successful execution.

Note:

A validation system was throughout developing both program, which means the project quite solid with validations.

### **Booking format required:**



```
<rafik><rafik-99998@gmail.com><RA000000>  
<jack><cjake-00@gmail.com><22222222>  
<sage><kingsley-90@gmail.com><DE000000>  
<Neem><Naeem-111@gmail.com><44444444>  
|
```

## References:

- W3schools.com. n.d. SQL Joins. [online] Available at: [Accessed 28 April 2022].
- lectures and units in canvas.
- YouTube tutorials