Database Design SOFT7022 Project

PHASE 2

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SDH2-A

I hereby certify that this material which I now submit for assessment, is entirely my own work and has not been taken from the work of others, save and to the extent, that such work has been cited and acknowledged within the text of my work

Index

1…………….Cover

2…………….Index

3………….…Project Description

4…………….Difficulties

5…………....Plan

6…………….Log

7…………….Log

8…………….Tables

9…………….Tables

10…………..CREATE.txt

11…………..INSERT.txt

12…………..Conclusion/Review

13…………..References

Project Description

This is phase two of my project. This project is based on an airline booking system which allows me to add flights, add a customer, book a flight, list of airlines, make a payment, flight information and delete an airline. Above is my index that gives which is quite self-explanatory

Below is a few of the difficulties that I ran into while designing this project. I give a brief description of these and how I overcame them or if I didn’t, I will explain what I did that helped me achieve the same end result. I give a plan week by week of what I intend to get done. I also give a log which gives a more detailed description of what I did and how I went about it.

I include the create and insert tables because I had to tweak a few small things, nothing major. I give a description of how I managed to get MySQL and NetBeans communicating with each other. I show my java code for the interface and why I did what I did

Finally, towards the end of my project I have a references page and a conclusion/review.

Difficulties

1st Difficulty

When I was trying the import the sample project and connector J into NetBeans I ran into a lot of problems because my laptop didn’t recognise those items for some reason. I manually copied them over and never tested it, but I knew there was going to be a problem and I also knew there had to be some way to import them. After relocating the files, a number of times, I finally arrived at a NetBeans folder. When I moved them into this NetBeans then recognised them? Looking back, I should have tried this to start with.

2nd Difficulty

When coding up the project I would be able to choose a menu choice, but it wouldn’t give me the option to choose another number in the menu without having to re-run the file. I found a forum-based thing on stack OverFlow that gave an example of a menu and I based my around that.

3rd Difficulty

When printing out the tables from my database to the screen they weren’t displaying as I intended. I wanted there to be a lot of space between columns to make it readable. Basically, I wanted to format how it was printed. I couldn’t remember had we done this in other modules. I found something on c4 Code with the one line I needed to display something

4th Difficulty

I found it hard to sit down and write the Microsoft word file for hours on end, so I spaced it out in the final week which gave me plenty time to focus on other projects equally and also left me feeling not as stressed.

Plan

WEEK1

* For my first week I plan to get connector J operating. What I mean by this is I plan to get MySQL and NetBeans communicating with each other. I gave myself a week for this as in the past I have never attempted to have to software’s talking to each other. I will take note of any problems I encounter and how I tackled these problems and where I got my information from.

WEEK2

* For week two I hope to have the two software’s talking to each other. I will then re-watch labs six and seven because these gave a detailed description of what to do when you have the connector J working. I.e. How to operate the prepared statements and update statements and general queries. I also hope to have my code written for this week.

WEEK3

* For week 3 I would hope to have the software side of things completed. I would also like to have a list of all the problems I came into. I would like to have a list of what I did to fix these problems and the last list I would like to have would be a number of references. Hoping I have all these I plan to create my document. I have some stuff already done for it like the log and the cover page, but I hope to get it all completed in a timely manner.

LOG

End of WEEK1

* I managed to get MySQL talking to NetBeans with the help of connector J. The majority of this process was very simple, I downloaded the MySQL sample project from canvas along with the connector J file. I also downloaded NetBeans because it wasn’t the IDE, I was using for my other modules, but it was needed for this project. I followed the video recording on how to set it up. I had apache set up, but I couldn’t import the sample project into Apache. When I would l open and try to locate the sample project from Apache, Apache didn’t seem to recognise it as a project. I tried moving it to other locations on my desktop but that didn’t work either. In the end I had to create the project on Apache manually and manually import every file individually. It was a long process, but it worked. Then I had to get connector J working. I had the same problem when I would click add JAR file that Apache would not recognise it. I wasn’t sure on how to open this file and copy the text over, so I tried relocating it. I found an Apache NetBeans folder on the desktop. Imported it into that and then NetBeans was able to recognise the file for me to import it. Once this worked, I said I would try the same with the sample project just in case I had missed a few files, or I didn’t copy something over into the right location. When I went to open, I was then able to see the sample project so that worked. My next problem was I couldn’t get them connected. I was using the database from last year with the password Spring2020 so I assumed I would have to use the ip address from the college and not my own one. However, that was not the case. It turned out the database was on my machine, so I had to use the ip address staring with 127. Finally, after all this I opened MySQL and the RunDB program to test it out and it worked

LOG

End of WEEK2

* For week two I planned to get connector J operating and to have all my code complete. As it turned out I managed to get the connector operating last week so I had all of this week to focus on my code. In my opinion the code was relatively easy. I used switch source. What this is is it allowed me to print out the menu to the screen and get the user to enter a number between one and eight. Whichever number they choose it would execute the code associated with that number. Within each case i.e. numbers one through eight I included code of what I wanted to be executed. The majority of the time it included printing out tables from my database to the screen, the user would choose what they want to change or delete and then it would re-print the tables to show it was complete or it would print to the screen that the request was successful.

End of WEEK3

* Now that I had software side of things completed it was time to write my report of the project. I had some notes of things I encountered written down, I had the cover page and my declaration that the work was all mine completed and I had a plan also finished. These things were grand because they were all done in small steps. I found it hard to sit at the laptop and write up my experience of how I got on for hours on end because I would become very agitated and report writing wouldn’t be a strong suit of mine but I guess I will have to get use to it. I would have no problem sitting down and programming for hours on end because I enjoy it. Anyway, I decided to do a small bit each day. It was very easy doing it that way and it put no pressure on myself. I found that the plan was very beneficial because it showed me, I could work on my other modules at the same time rather then cramming everything into the last second.

DATABASE DESIGN

Customer

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Customerid | fname | lname | address | email | phone |
| d.bear | Dylan | Bearman | 17 Cul na Greine | dylanbearman@gmail.com | 0879376069 |
| monty | Conor | Montgomery | 42 College Rd | c.m@mycit.iee | 0830649204 |
| bod | Brian | O’Drisscoll | 28 Mary Heights | bob@yahoo.com | 0861663836 |
| bear\_dylan | Dylan | Bearman | 42 College Rd | dbearman@gmail.com | 0896237498 |

Attendance Price

|  |  |
| --- | --- |
| customerid | flightno |
| d.bear | 581327 |
| monty | 895142 |
| bod | 581327 |
| bod | 222555 |
| bear\_dylan | 895142 |

|  |  |
| --- | --- |
| flightno | price |
| 581327 | 250 |
| 895142 | 300 |
| 222555 | 200 |

Passport

|  |  |
| --- | --- |
| customerid | Passport no |
| d.bear | IE 47362 |
| monty | IE 67894 |
| bod | IE 78306 |
| bear\_dylan | IE 98720 |

DATABASE DESIGN

Airlines

|  |  |
| --- | --- |
| airlinename | airlineid |
| Ryanair | RYR |
| Aer Lingus | EIN |
| Stobart | STK |

Flights

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| flightno | source | destination | ETA | numberpassanger |
| 581327 | Shannon | Cork | 17:40 | 41 |
| 895142 | Dublin | Kerry | 18:00 | 83 |
| 222555 | Cork | Dublin | 03:20 | 111 |

Paid

|  |  |  |
| --- | --- | --- |
| customerid | flightno | paidornot |
| d.bear | 581327 | no |
| monty | 895142 | no |
| bod | 581327 | yes |
| bod | 222555 | yes |
| bear\_dylan | 895142 | no |

CREATE.txt

CREATE TABLE Price

(flightno VARCHAR(6) NOT NULL,

price Decimal(13,2),

PRIMARY KEY (flightno));

CREATE TABLE Flights

(flightno VARCHAR(255) NOT NULL,

source VARCHAR(255),

destination VARCHAR(255),

eta VARCHAR(255),

numberpassenger VARCHAR(255),

PRIMARY KEY (flightno));

CREATE TABLE Passport

(customerid VARCHAR(255) NOT NULL,

passport VARCHAR(255),

PRIMARY KEY (customerid));

CREATE TABLE Airlines

(airlinename VARCHAR(255) NOT NULL,

airlineid VARCHAR(255),

PRIMARY KEY (airlineid));

CREATE TABLE Attendance

(customerid VARCHAR(255) NOT NULL,

flightno VARCHAR(255),

CREATE TABLE paid

(customerid VARCHAR(255) NOT NULL,

flightno VARCHAR(255) NOT NULL,

paidornot VARCHAR(255),

CREATE TABLE customer

(customerid VARCHAR(255) NOT NULL,

fname VARCHAR(255),

lname VARCHAR(255),

address VARCHAR(255),

email VARCHAR(255),

phone VARCHAR(255),

PRIMARY KEY (customerid));

Commit;

INSERT.txt

INSERT INTO Price VALUES('581327', '250');

INSERT INTO Price VALUES('895142', '300');

INSERT INTO Price VALUES('222555', '200');

INSERT INTO Flights VALUES('581327', 'Shannon', 'Cork', '17:40','41');

INSERT INTO Flights VALUES('895142', 'Dublin', 'Kerry', '18:00','83');

INSERT INTO Flights VALUES('222555', 'Cork', 'Dublin', '03:20','111');

INSERT INTO Passport VALUES('d.bear', 'IE 47362');

INSERT INTO Passport VALUES('monty', 'IE 67894');

INSERT INTO Passport VALUES('bod', 'IE 78306');

INSERT INTO Passport VALUES('bear\_dylan', 'IE 98720 ');

INSERT INTO Airlines VALUES('Ryanair', 'RYR');

INSERT INTO Airlines VALUES('Are Lingus', 'EIN');

INSERT INTO Airlines VALUES('Stobart', 'STK');

INSERT INTO Attendance VALUES('d.bear', '581327');

INSERT INTO Attendance VALUES('monty', '895142');

INSERT INTO Attendance VALUES('bod', '581327');

INSERT INTO Attendance VALUES('bod', '222555');

INSERT INTO Attendance VALUES('bear\_dylan', '895142');

INSERT INTO paid VALUES('d.bear', '581327', 'no');

INSERT INTO paid VALUES('monty', '895142', 'no');

INSERT INTO paid VALUES('bod', '581327', 'yes');

INSERT INTO paid VALUES('bod', '222555', 'yes');

INSERT INTO paid VALUES('bear\_dylan', '895142', 'no');

INSERT INTO customer VALUES('d.bear', 'Dylan', 'Bearman', '17 Cul na Greine','dylanbearman@gmail.com', '0879376069');

INSERT INTO customer VALUES('monty', 'Conor', 'Montgomery', '42 College Rd','c.m@mycit.ie', '0830649204');

INSERT INTO customer VALUES('bod', 'Brian', 'ODrisscoll', '28 Mary Heights','bob@yahoo.com', '0861663836');

INSERT INTO customer VALUES('bear\_dylan', 'Dylan', 'Bearman', '42 College Rd','dbearman@gmail.com', '0896237498');

Commit;

CONCLUSION/REVIEW

After I completed all of this project, both phase one and phase two on my own and without the help of others it wasn’t what I expected it to be.

Firstly, phase one was very similar to that of our project from last semester. That made it manageable because I was able to relate back and see what to do again and what not to do.

In addition, phase two was not what I expected at all. I thought it was going to be very focused on Query’s etc and just writing them through java but for it you had to know a lot of java code which surprised me.

Also, it made me realise that I have to get more used to this diary work side of things for the future. Not because it is going to be require but because I found it much easier when managing my time and splitting out the workload.

Finally, I found this project a challenge as it was my first time getting two applications to communicate with each other. It was manageable as I had attended the majority of the lectures and the labs and having known the java language from other modules.

REFERNCES]

First Reference

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Second Reference

https://c4code.wordpress.com/2018/03/17/how-to-print-the-results-to-console-in-a-tabular-format-using-java/

Third Reference

https://stackoverflow.com/questions/11056871/netbeans-made-jar-file-wont-work

Fourth Reference

https://docs.oracle.com/javase/tutorial/jdbc/basics/prepared.html

Fifth Reference

https://www.javatpoint.com/mysql-queries#:~:text=A%20list%20of%20commonly%20used,drop%20table%20are%20given%20below.