**ASSIGNMENT 2 FRONT SHEET**

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| **Qualification** | **TEC Level 5 HND Diploma in Computing** | | |
| **Unit number and title** | **Unit 04: Database Design & Development** | | |
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| **Student declaration**  I certify that the assignment submission is entirely my own work and I fully understand the consequences of plagiarism. I understand that making a false declaration is a form of malpractice. | | | |
|  |  | **Student’s signature** |  |

**Grading grid**

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| P2 | P3 | P4 | P5 | M2 | M3 | M4 | M5 | D2 | D3 |
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| **❒ Summative Feedback: ❒ Resubmission Feedback:** | | |
| **Grade:** | **Assessor Signature:** | **Date:** |
| **Signature & Date:** | | |

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# Chapter 1 - Develop the database system

1. Final Mock-up of the application

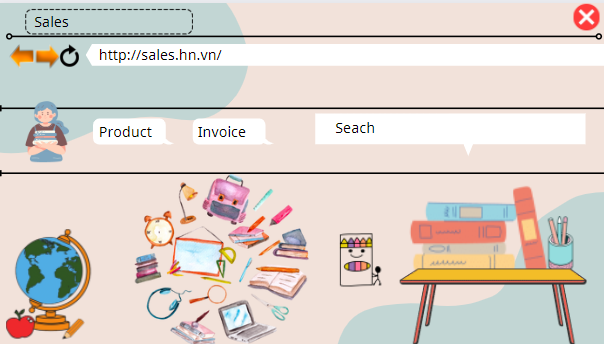


Figure 1: Interfaces Home page

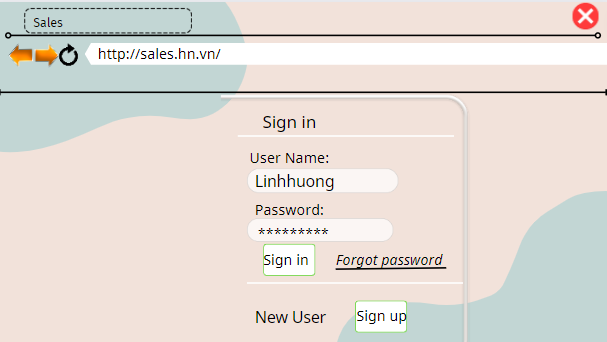


Figure 2: Interfaces Login

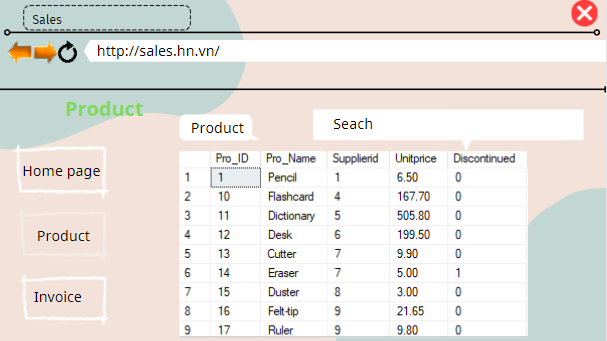


Figure 3:Interface Product

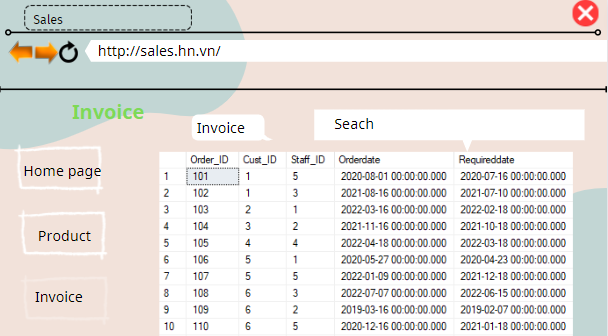


Figure 4: Interface Invoice

1. Queries to create database with results

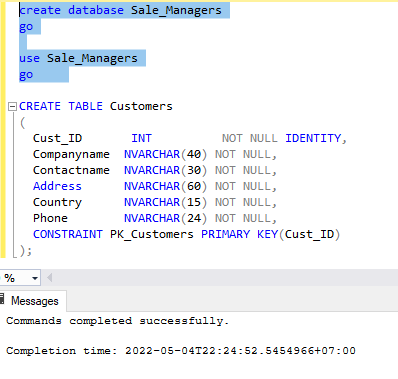


Figure 5: Create Database

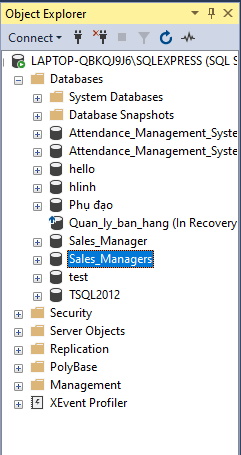


Figure 6: Show database on toolbar

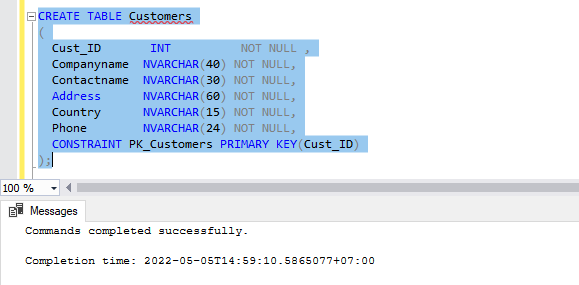


Figure 7: Create table Customer

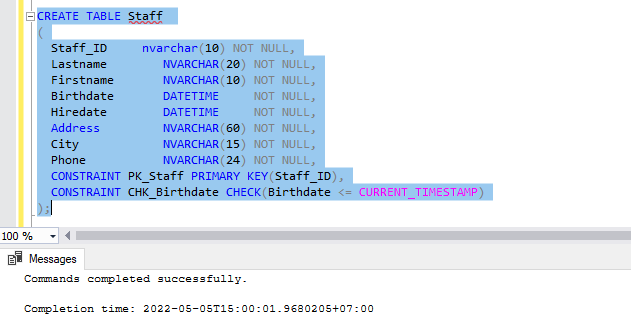


Figure 8: Create table Staff

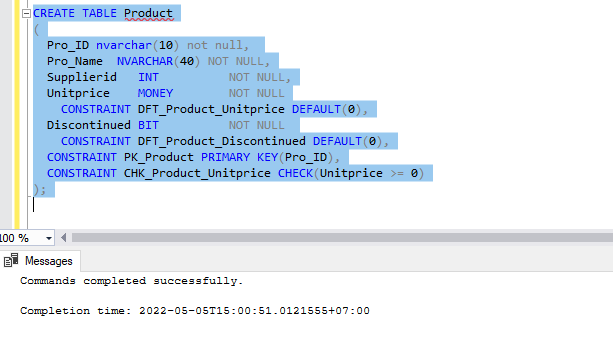


Figure 9: Create table Product

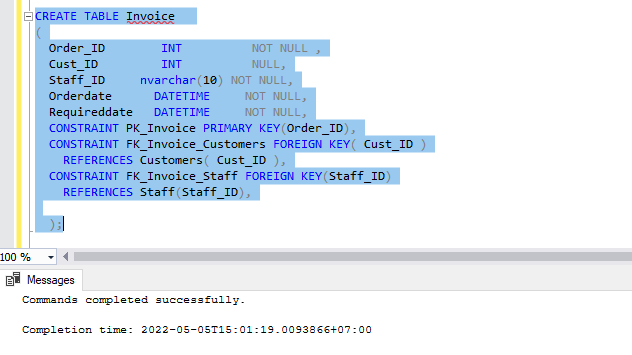


Figure 10: Create table Invoice



Figure 11: Create table InvoiceDetails

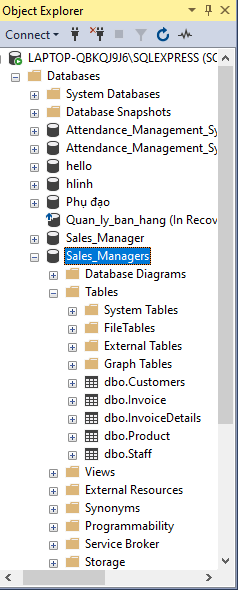


Figure 12: Show all panels in toolbar

# Chapter 2 – Produce queries

1. Queries to INSERT data with illustrations of final result

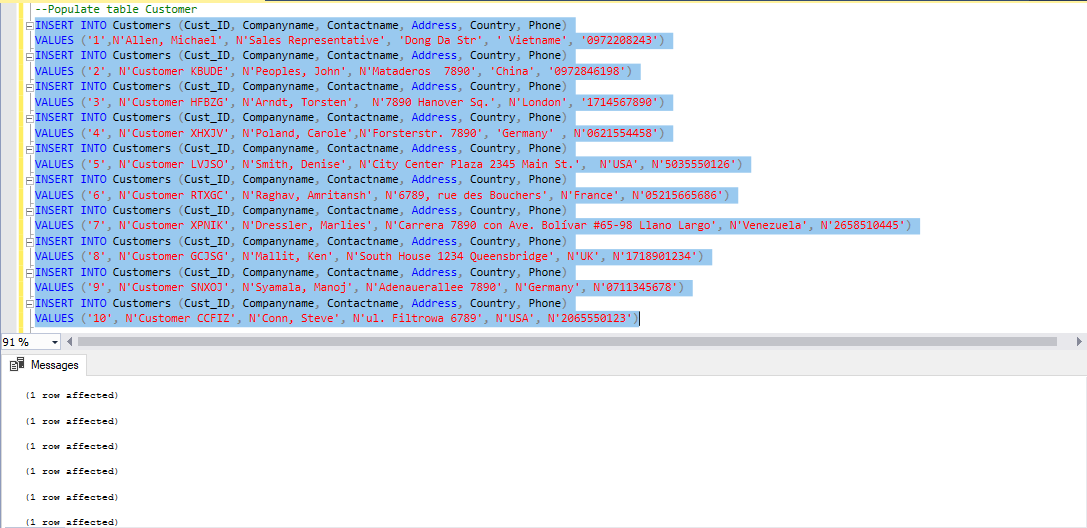


Figure 13: Queries to INSERT Customer

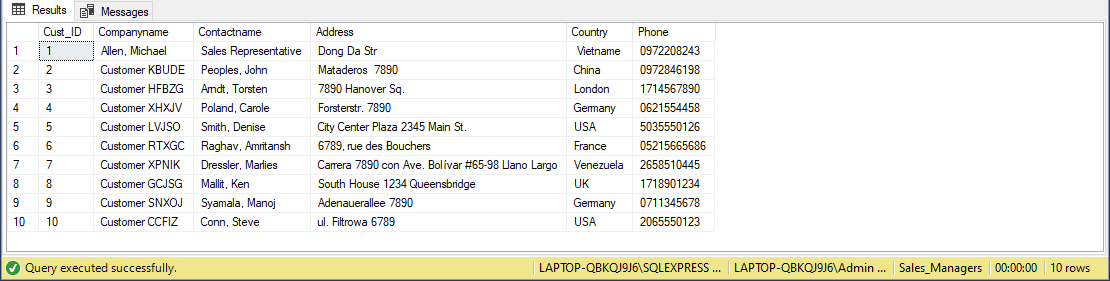


Figure 14: Show all Customer table data

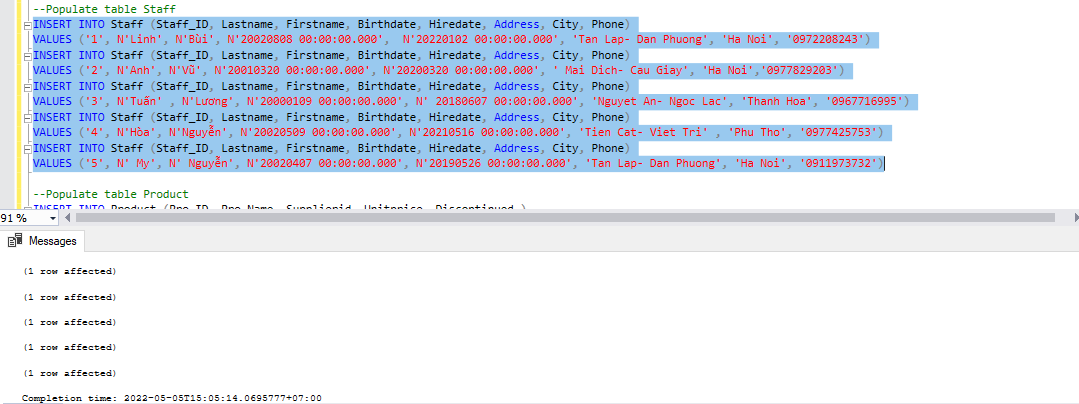


Figure 15: Queries to INSERT Staff

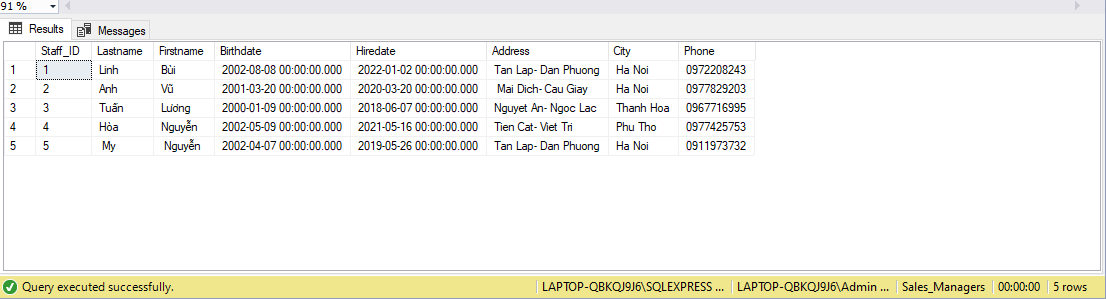


Figure 16: Show all Staff table data

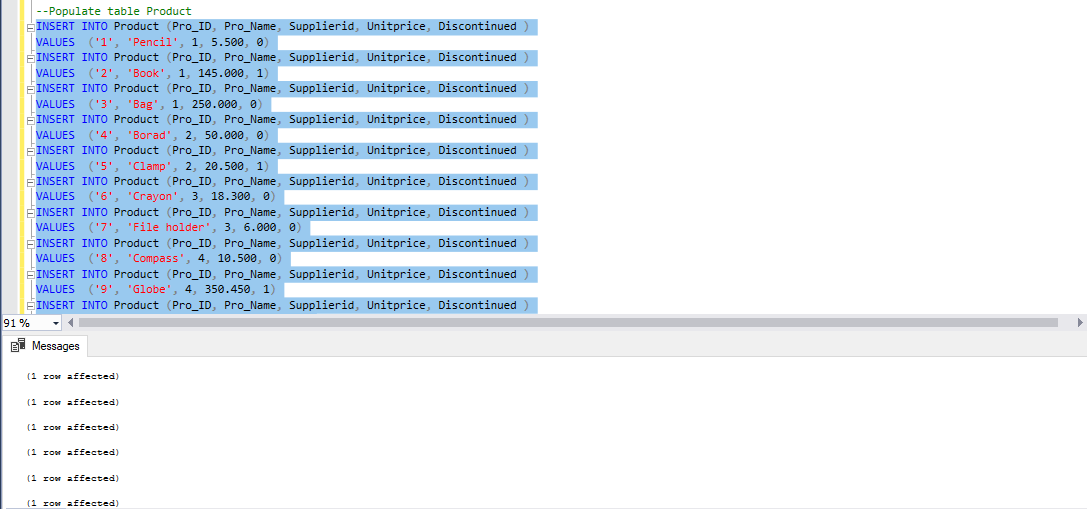


Figure 17: Queries to INSERT Product

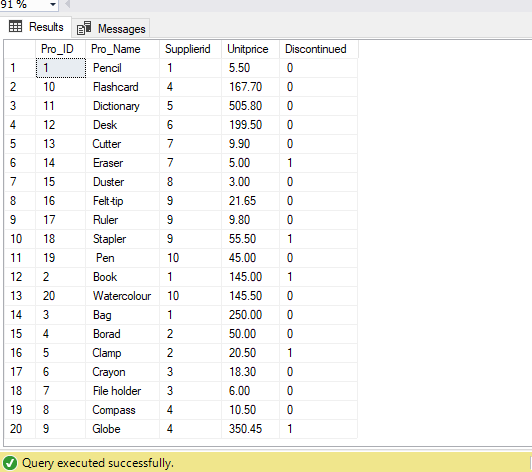


Figure 18: Show all Product table data

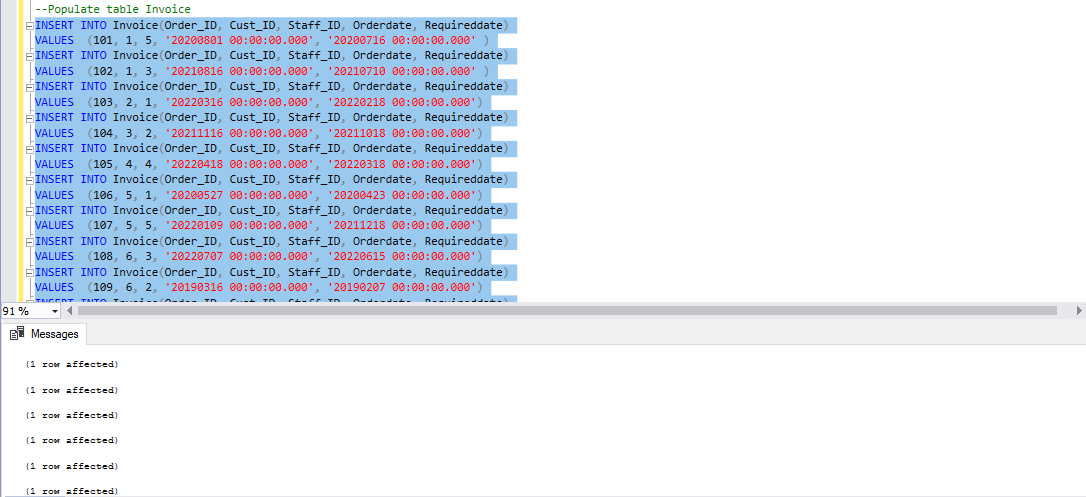


Figure 19: Queries to INSERT Invoice

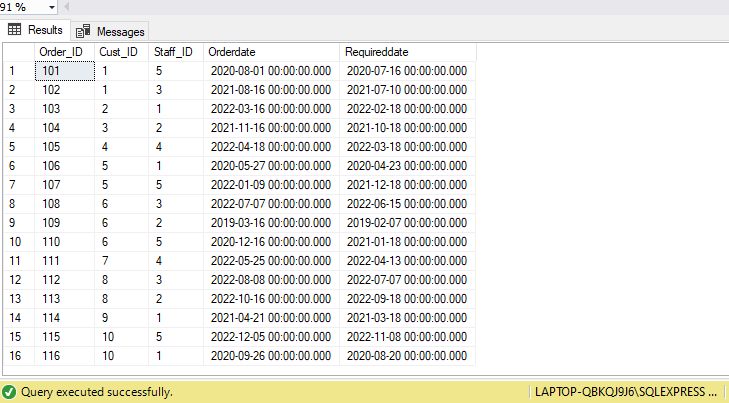


Figure 20: Show all Invoice table data

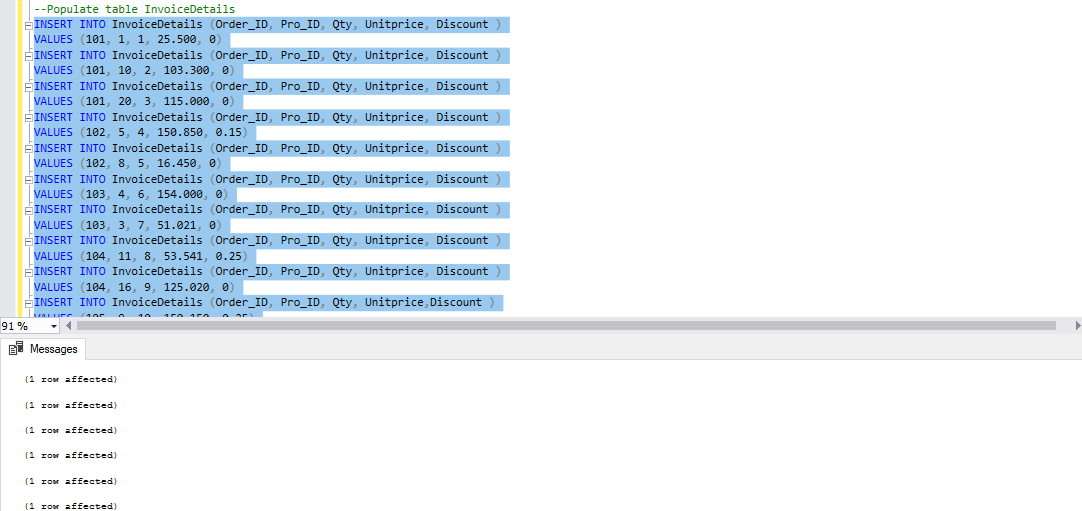


Figure 21: Queries to INSERT InvoiceDetails

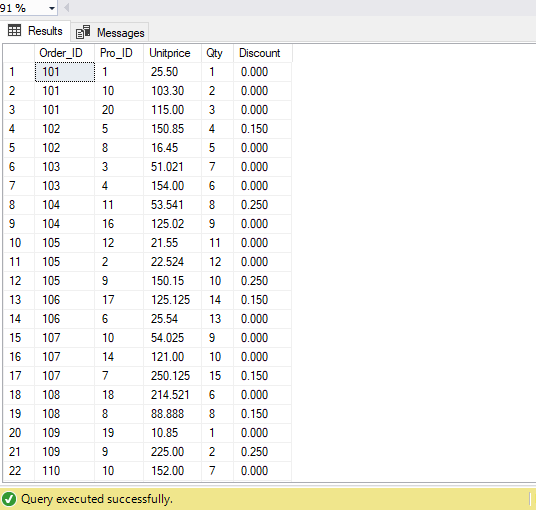


Figure 22: Show all InvoiceDetails table data

1. Queries to UPDATE data with illustrations of final result

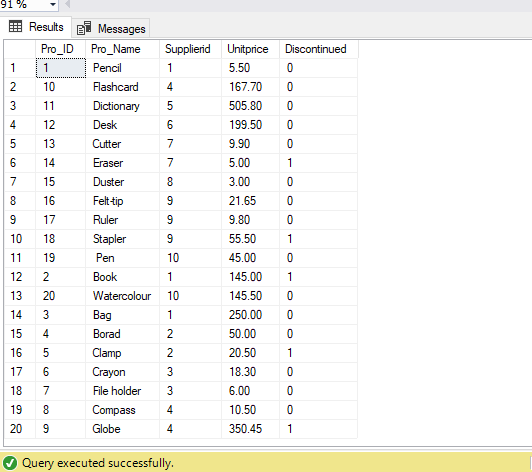


Figure 23: Queries to Update

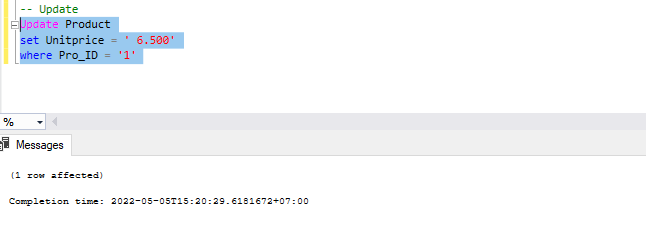


Figure 24: Result

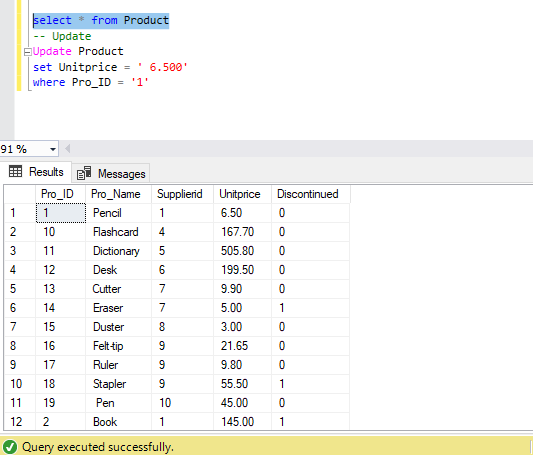


Figure 25: Display information when changes

1. Queries to DELETE data with illustrations of final result

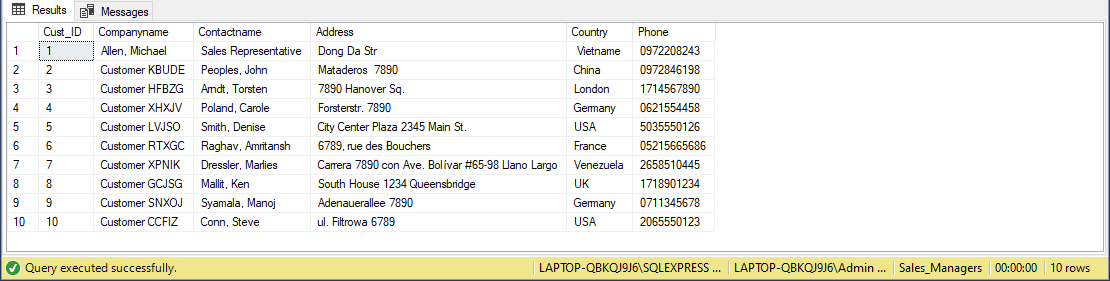


Figure 26: Display information before

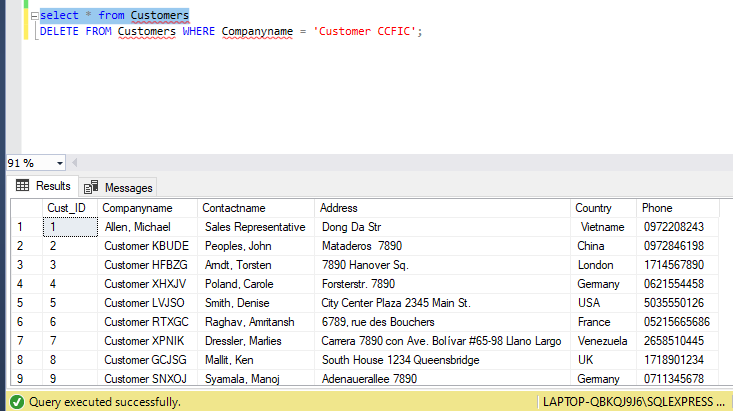
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Figure 27: Display information when changes

1. Queries to SELECT data with illustration of final result

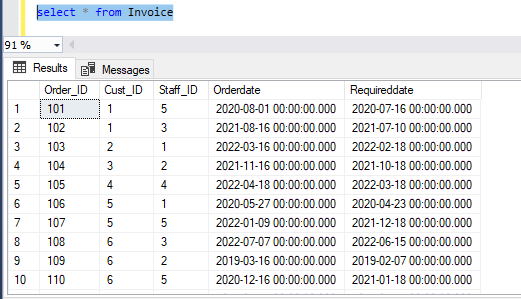


Figure 28: Select

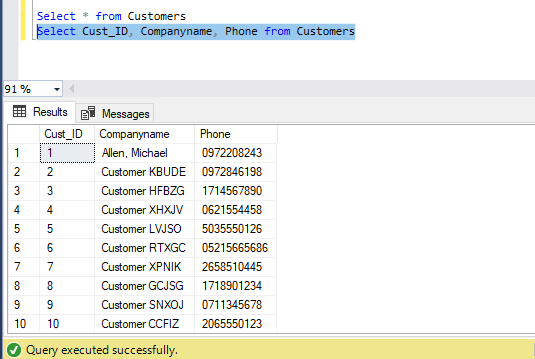


Figure 29: Select \*

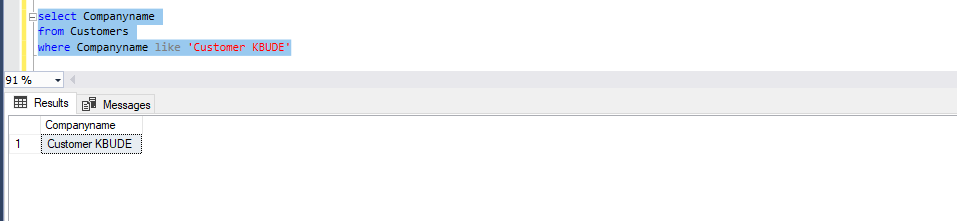


Figure 30: Select ... like

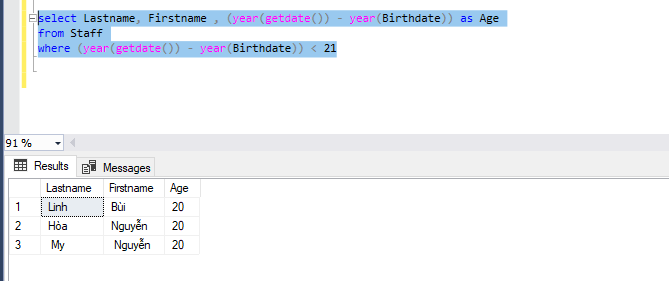


Figure 31: Select ... where

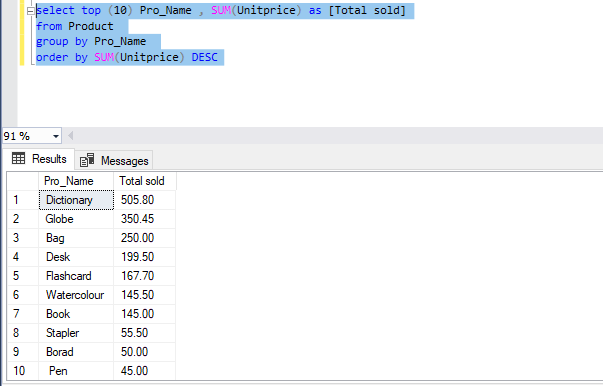


Figure 32: Select ... top

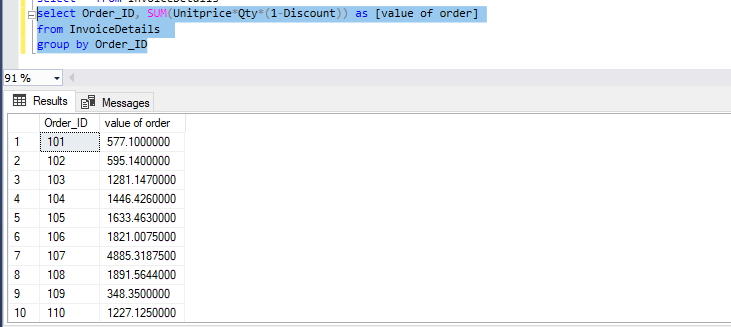


Figure 33: Select ... group by

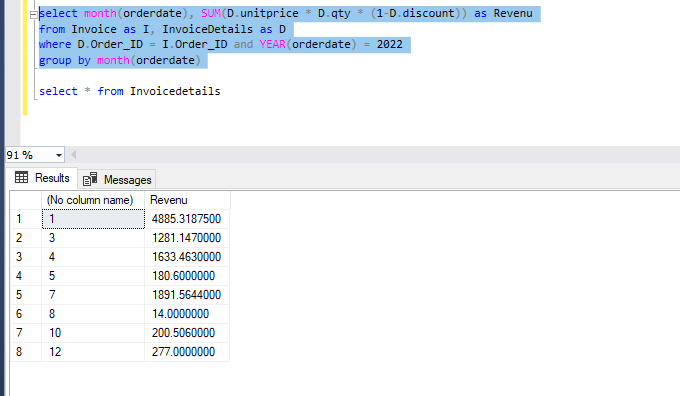


Figure 34: Select ... group by

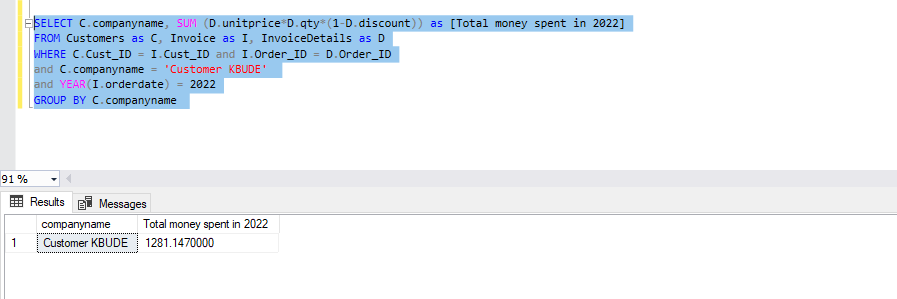


Figure 35: Select ... group by

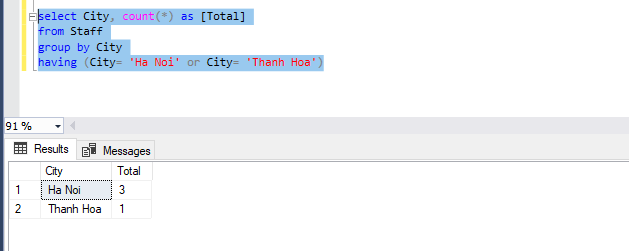


Figure 36: Select... having

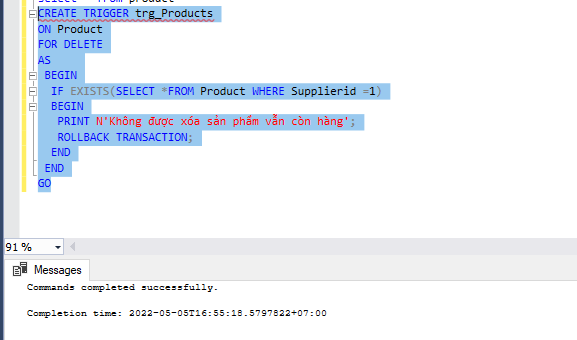


Figure 37: Trigger

# Chapter 3 – Test the system

1. Test cases

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test case type | Description | Test step | Expected | Status  (P/F) |
| Insert into | There is no need to specify column names because all column values are in table column order. | Using the following queries, I filled in the information in the order of the columns and inserted the data. | The new data values are stored in the database. | P |
| Update | It includes a SET clause, which defines the column and value as a pair of items. To limit the number of rows, it is necessary to use the where clause to locate the row to be modified in the table. | Change the data of the Unitprice column in Product for all rows of the table with the value of 5.500 in Pro\_ID = '1' to the current 6.500 | Saw that the Unitprice column at Pro\_ID = '1' was changed with  the new values. | P |
| Delete | DELETE queries include a condition in the WHERE clause because if it is not used, all records in the table are deleted. | Enter the DELETE statement to delete Companyname = 'Customer CCFIC' in the Customer table. | Companyname = 'Customer CCFIC' has been deleted. | P |
| Select \* from | The query returned the full set of rows, columns, or a subset of rows and columns from one or more system Manager tables. | FROM is used to list the necessary tables used in the query. | Executing the SELECT\* FROM Customer (Cust\_ID, Companyname, Phone) statement outputs all columns of data. | P |
| Select top | The TOP(10) return clause inserted the first 10 rows from the result set based on Pro\_Name. | TOP(10) has inserted the top 10 and is already sorted. | Will retrieve the first Pro\_Name record on the table . | P |
| SQL having | Limit the sum results to limit the groups of returned rows to the group of returned rows, only if the TRUE condition for City is met to filter the results so that only addresses in Ha Noi and Thanh Hoa are returned about. | When using the HAVING clause, it must be combined with the Group by clause. Print to screen error. | Returns the result (2 rows affected) | P |
| SQL where | Filter record from tables to satisfy all system and user requiements | The operators between, >, like, can be used. | Data has been returned | P |
| SQL trigger | Delete the information of the Product table, then records the information of these changes. | Delete Products information into the table, and when the delete is complete, a successful message will be printed on the screen. All Trigger creation BEGIN and ending with END | Message: Commands completed successfully  (1 rows affected ) | P |

1. Flowchart to show how the system works

False

True

True

Admin

Invoice

Product

Product

Sales Manager interface

Login

Home page

Staff