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Programming and Web Development

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Making a Database: Regionals Practice

During Cycle 15 of Programming and Web Development, I practiced my skills in Database by performing the tasks asked for in the Regional 2013 Test for Database Applications. First, I completed Job 1: creating the table “Inventory pg21489”. Later on, I accomplished Job 3: mapping and enforcing a relationship between the Inventory and Sales tables. Afterwards, I executed Job 4: which instructed me to manufacture a Profit Query. Lastly, I achieved Job 6: forging a report for specific fields. With this practice, I effectively increased my knowledge in the field of Database administrations.

The first objective I needed to complete turned out to be making a table. First and foremost, I constructed the six fields essential for the table’s function such as ID, product name, cost, in stock, minimum and re-order qty. Then, I ensured correct data types for each field so that each record’s format would end up accurate. After that, I transcribed all of the information given on the test into records inside the table. Finally, I saved the table under the name “Inventory pg21489” to keep all of my data. I now possessed a crucial part of the project.

Product ID	Product Name	Cost	In Stock	Minimum	Re-order Qty
1000001	Hard Drive	\$24.00	100	10	20
1000002	10TB Hard Drive	\$20.00	400	400	200
1000003	10TB Hard Drive	\$20.00	400	400	200
1000004	10TB Hard Drive	\$20.00	400	400	200
1000005	10TB Hard Drive	\$20.00	400	400	200
1000006	10TB Hard Drive	\$20.00	400	400	200
1000007	10TB Hard Drive	\$20.00	400	400	200
1000008	10TB Hard Drive	\$20.00	400	400	200
1000009	10TB Hard Drive	\$20.00	400	400	200
1000010	10TB Hard Drive	\$20.00	400	400	200

Figure 1: A print screen of the table.

Later into the project, I reached Job 3: blueprinting a relationship between two tables. To start off, I opened the relationships window and added the two existing tables (Inventory and Sales, which I manufactured after Job 1). Afterwards, I produced a one-to-one relationship by connecting the primary keys of each table. Finally, I saved the relationship, enforcing the integrity between the tables and finalizing the table's connections. With this newly-bound relationship, the tables could now share their information, more specifically the product ID.

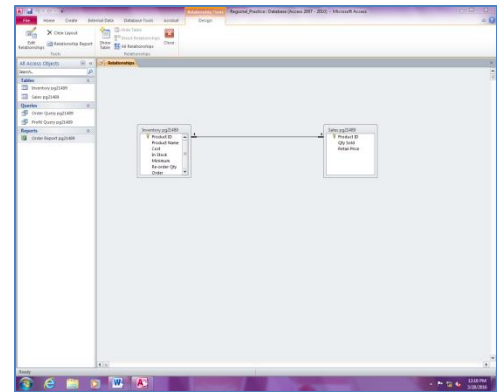


Figure 2: Relationship between the two tables.

As I dug deeper into the tasks, I confronted Job 4: the queries. When I began the query, I started annexing a few fields to the query. Afterwards, I formulated another field called “Gross Sales” applying the builder tool to brainstorm a function (the field contained the values of the fields “Qty Sold” times “Retail Price”). I then composed another field called “Product Cost” operating the builder tool for one more expression the incorporated “Qty Sold” times “Cost”. Finally, I set up the Profit field with information straight from the query itself (“Gross Sales” times “Product Cost”). With the query done and working accordingly, I now acquired more information about the data from a single query.

Product ID	Retail Price	Qty Sold	Gross Sales	Product Cost	Profit
1	100	10	1000	100	900
2	200	5	1000	200	800
3	300	10	3000	300	2700
4	400	5	2000	400	1600
5	500	10	5000	500	4500

Figure 3: The Profit Query in Design Mode.

I came to a close at Job 6: establishing the report. Before any construction of the report, I included a new field called “Order” (it contained a Yes/No data type) to the table. After a short time, I manipulated the Report Wizard to spawn specific fields subsumed into a report. Next, I

Product ID	Product Name	Item Balance	Minimum	Re-order Qty	Order	Cost	Order Cost
A02967	Hard Drive	77	100	50	☐	\$24.00	\$1,200.00
CD4387	3.5 Floppy Disk	134	800	200	☐	\$15.00	\$1,200.00
EF9384	RW CD	444	900	100	☐	\$6.25	\$1,300.00
GH6740	DVD	2511	3400	1000	☐	\$1.38	\$1,380.00
100930	USB Cable	237	237	75	☐	\$9.87	\$65.25

Figure 4: Print Preview of the report.

combined a text field to the report called “Order Cost” because I needed to add a new field exclusively for the report. To end it all off, I changed the control source utilizing the builder to affix an expression to the text boxes (Re-Order Qty times Cost). With this completed, I obtained the data in a much neater and organized way.

Doing this project taught me many innovative ways to organize data. I concocted a table called “Inventory” which held different sorts of fields. I organized a relationship between two tables to integrate changes in information. Later, I devised a query to find out about certain aspects of the data that took almost an instant to see. Lastly, I shaped a report to organize certain fields from a table in a neat method. With my new knowledge, I now own the intellect and skill to process data in the workforce.