Lab 4

Robert Gabriel

# Analyze the tables to deduce what application the tables are designed for i.e. what are the tables trying to store? Describe in clear terms e.g. is it for a Video rental? This can help you clarify your thinking from a logical perspective.

ProductInfo table is for holding the product information.

OrderHistory Table is for holding the order history details.

LineItem Table is for storing the details for muiltpy item sales.

Customer Table is for the Customer Details.

# Populate the tables with dummy data. Does the design correctly store the data according to the meaning you have given the application? Alternatively, think about this problem from the processing perspective: why does the programmer run into problems of duplicate or incorrect data. What does (s)he mean by this?

Primary Key: ProductId

|  |  |  |
| --- | --- | --- |
| ProductId | Description | Cost |
| 1 | Raay gun for kids | 14.99 |
|  |  |  |

Primary Key: LineitemId , OrderId

|  |  |  |
| --- | --- | --- |
| LineitemId | OrderId | Quantity |
| 3 | 228 | 2 |

Primary Key: CustomerId

|  |  |  |
| --- | --- | --- |
| Customer Id | Cust name | Address |
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Primary Key: OrderId

|  |  |  |  |
| --- | --- | --- | --- |
| OrderId | CustomerId | Total | Date |
| 228 | 45 | 1 | 10/10/2013 |

There is no link between tables, meaning that it would be harder for updating , inserting and deleting. There is no clear link between the two. CustomerId and the rest of the tables ☺

# Identify the problem with the design i.e. what is the design flaw that has come to light when the query processing of the tables won’t work correctly. Note we don’t know the SQL for this query exactly, but we should be able to work out what data is needed for the query; where that data is; and then envisage how the tables would have to be processed to obtain that data.

There is no link between tables, meaning that it would be harder for updating , inserting and deleting. There is no clear link between the two. CustomerId and the rest of the tables ☺.

By adding the following productId to the CustomerId will link all information to each other.

Primary Key: CustomerId

|  |  |  |  |
| --- | --- | --- | --- |
| ProductId | Customer Id | Cust name | Address |
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# Redesign the tables to solve the problem(s).

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Product ID | Description | Cost | OrderId | CustomerID | Total | Date | LineitemId | Quanitity | CustName | Address |
| 1 | Raay gun for kids | 14.99 | 228 | 45 | 1 | 10/10/2013 | 3 | 2 | Robert Gabriel | Mansfield House |

Primary Key: ProductId Primary Key: OrderId

|  |  |  |
| --- | --- | --- |
| ProductId | Description | Cost |
| 1 | Raay gun for kids | 14.99 |

|  |  |  |  |
| --- | --- | --- | --- |
| OrderId | CustomerId | Total | Date |
| 228 | 45 | 1 | 10/10/2013 |

Primary Key: LineitemId , OrderId

|  |  |  |
| --- | --- | --- |
| LineitemId | OrderId | Quantity |
| 3 | 228 | 2 |

Primary Key: CustomerId

|  |  |  |
| --- | --- | --- |
| Customer Id | Cust name | Address |
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