Lab 3

Robert Gabriel

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Cust\_no | Prod\_id | Cust\_name | Description | Qty | Price | BankAC | Date | Address |
| 123 | 1 | Robert Gabriel | Description | 1 | 300 | AIB | 20/1/2014 | MANSFEILD HOUSE |
|  |  |  |  |  |  |  |  |  |

1. Devise a table (1NF) with dummy data for the application i.e. make up the data.

# List dependencies (attribute groupings with identifiers)

Cust\_no -> Cust\_name,Address,bankAC

Prod\_id -> Description,Price

Cust\_no ,Prod\_id ,Date - >Qty

# Designate a primary key for the single table above if you were to use it as a database

Primary Key : (Cust\_No,Prod\_id , Date)

# List any processing problems with the 1NF table above

Updating

There would be repeats and make it hard for updating

Inserting

There would be null values if you wanted to just want to insert for the duplicate copies.

It would leave the errors.

Deleting

There would be null values if you wanted to just do the delete. Could delect more information , lots of information.

# Redesign the table (normalize it) to remove these problems. Designate a key for each table you add to the design.

Cust\_no -> Cust\_name,Address, bank

|  |  |  |  |
| --- | --- | --- | --- |
| Cust\_no | Cust\_name | Address | bankAC |
| 123 | Robert Gabriel | MANSFEILD | AIB |

Prod\_id -> Description,Price

|  |  |  |
| --- | --- | --- |
| Prod\_id | Description | Price |
| 1 | Description | 300 |

Cust\_no ,Prod\_id ,Date - >Qty

|  |  |  |  |
| --- | --- | --- | --- |
| Cust\_no | Prod\_id | Date | Qty |
| 123 | 1 | 20/1/2014 | 1 |

|  |  |  |
| --- | --- | --- |
| Cust\_no | Prod\_id | Date |
| 123 | 1 | 20/1/2014 |

**Definition:**Transitive dependencies occur when there is an indirect relationship that causes a[functional dependency](http://databases.about.com/library/glossary/bldef-functdep.htm).

**Examples:**

For example, ”A -> C” is a transitive dependency when it is true only because both “A -> B” and “B -> C” are true.