Part3

1. Explain what is wrong with the following table and how you would fix it?

Ans The table suffers from not having its content normalized to seperate tables. For Example : The produts are in the same table as a column. Whenever we want to extract a list of products that a company is having , it would be difficult to extract, since the products right now are in string format. If at all we have seperated the products to a different table then it would be much simpler to perform queries and extract the information.

Since a product can be in many companies, and a company can have many products, we have to use many-many relationship between product and the table company.

Also the information like address and contact can be further condensed to another table called conatcts. Since, a single company can have many addresses(Ex: Company like Google have many branches), but an address refers to only single company, this would be one-to-many relationship.

Below is the schema:

**Company (table)**

* companyId (primary key)
* companyName (varchar)

**Company\_products(table)** (Many-to-Many between company and product)

* companyId

(Both act as primary keys, i.e composite primary key)

* productId

**Product(table)**

* productId (primary key)
* productName (varchar)

**Contact(table)**

* contactId(primary key)
* address(varchar)
* email(varchar)
* phone(number)
* companyId (foregin\_key to table Company)