**Instructions:** For each use case, develop a CRUD to determine the tables that are used. Then, total up the total uses of each table at the end. Finally, write up a summary of what indexes you determined were necessary for your initial design based on the CRUD review and assumptions about the occurrence of each use case.

Use Case Name: 1.3 - Create bill of materials

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table | C | R | U | D |
| Product\_Material |  | X |  |  |
| Bill\_Material | X | X | X | X |
| Inventory\_resource |  | X |  |  |
|  |  |  |  |  |

Product\_Material: table that matches product with its required materials

Product\_id (PK), material\_id (FK), material\_number 1 product -> n materials

Bill\_Material: create and store new bill of material into db (if necessary)

Inventory: the remaining number of resources in the inventory

Material\_id (PK), remaining number

Use Case Name: 2.2 - Enter customer order

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table | C | R | U | D |
| Customer\_Info |  | X | X |  |
| Inventory\_product |  | X |  |  |
| Order | X | X | X | X |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Customer info: id, name, address, account info

Inventory of product: remaining number of each product

Order: id, num of product, price, qty, total price, tax, shipment detail…

Use Case Name:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table | C | R | U | D |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Use Case Name:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table | C | R | U | D |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**CRUD Totals**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table | C | R | U | D |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**Index Decisions:** Except for Primary and Foreign keys, summarize here the additional indexes you applied to your design: