|  |
| --- |
| **Customer** |
| CustNo |
| FName |
| LName |
| Email |

|  |
| --- |
| **Department** |
| DeptName |
| Model |
| BasePrice |

1…1

|  |
| --- |
| **Contract** |
| ContractNo |
| ContractDate |
| CustNo |

1…1

|  |
| --- |
| **Part** |
| PartNo |
| pName |
| Cost |

0…\*

0…\*

place

1…1

has

|  |
| --- |
| **BuildPart** |
| OrderNo |
| PartNo |
| Installed |

1…\*

|  |
| --- |
| **ContractOrder** |
| OrderNo |
| ContractNo |
| DeptName |
| Model |
| Status |

1..1 has 3…13

1…1

use

1…1

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Customer { | CustNo, | Firstname, | Lastname, | Email | } |
| fd1 | | | ↑ | ↑ | ↑ |  |
| fd2 | | | ↑ |  |  |  |
| fd3 | | |  | ↑ |  |  |
| fd4 | | |  |  | ↑ |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ContractOrder { | OrderNo, | ContractNo, | DeptName, | Status | } |
| fd1 | | | ↑ | ↑ | ↑ |  |
| fd2 | | | ↑ |  |  |  |
| fd3 | | |  | ↑ |  |  |
| fd4 | | |  |  | ↑ |  |
| fd5 |  | | | ↑ |  |  |

Customer { Id, FName, LName, ContactInfo }

Department { Id, Name }

Part { Id, name, price }

Order { CustId, DeptId, OrderDate }

Build { Id, DeptId, ShipId, Status, Feat1, … , Feat10 }

Each Order is placed by 1 and only 1 customer; each customer may place 0 or more orders.

Each Build is in 1 and only 1 order; each Order may have 1 or more build.

Each Build is responsible by 1 department; each department is responsible for 0 or more builds.

Each Ship is construct in 1 build; each build construct 1 ship.

Each Part is use in 1 build; each build use 1 or more part.

Order and Build are weak entities, their existence are depended on Customer, SpaceShip, Department, Part.