**Project Title: Subterranean Living Solutions: Homes for Underground Enthusiasts**

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**GitHub URL:** [**https://github.com/chaitanyaanurag/database-3.git**](https://github.com/chaitanyaanurag/database-3.git)

**SQL Environment: Windows**

**UML ERD:**

A screenshot of a document

Description automatically generated

**Crow’s Foot ERD:**

A screenshot of a computer

Description automatically generated

**Relationship Description:**

1. **Customer to Order:** Each Order depends on one and only one Customer entity. This means that for every order placed, there is exactly one customer associated with it. Conversely, a Customer can have zero or more Orders, accounting for the possibility that some customers may not have placed an order or may have placed multiple orders.
2. **Order to HomeDesign:** Each Order is linked to one and only one HomeDesign entity. This signifies that every order specifies a single home design selection. On the other side, a HomeDesign can be part of zero or more Orders, reflecting that some designs might be chosen in multiple orders or possibly not chosen at all.
3. **HomeDesign to DesignMaterials (Associative Entity):** Each record in DesignMaterials is associated with one and only one HomeDesign. This relationship indicates that the associative entity represents a specific use of a home design in a material selection context. Each HomeDesign can be linked to one or more records in DesignMaterials, denoting that a single home design can include various materials.
4. **Material to DesignMaterials (Associative Entity):** Each record in DesignMaterials is linked to one and only one Material. This means that each entry in the associative entity specifies a particular material. Conversely, a Material can be associated with one or more records in DesignMaterials, indicating that the same material can be used in multiple home designs.
5. **Indirect Relationship - Order to Material (via HomeDesign and DesignMaterials):** An Order indirectly relates to Material through HomeDesign and DesignMaterials. Each Order selects a HomeDesign, which in turn, through DesignMaterials, determines one or more Materials used. This relationship is not directly mapped but is understood through the interconnected nature of the entities.