Title of Project:  
Business development for Commercial buildings

Name:  
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GitHub URL:  
<https://github.com/Mubeenabdul/DATABASE-2.git>

SQL environment:

Windows

As part of the database design for the Business Development for Commercial Buildings project, I have identified the following five entities that are central to our business operations. Each entity is associated with a specific aspect of the business, and the attributes help in tracking and managing the information effectively.

**Entity #1: Construction Sites**

**Description:** These are the physical locations where our commercial buildings are being constructed. Managing these sites efficiently is crucial for project timelines and budget adherence.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data Type** | **Description** |
| SiteID | Integer | A unique identifier for each site. |
| Address | Varchar | The physical address of the construction site. |
| Project Status | Varchar | Current status of the construction (e.g., Planning, In Progress, Completed). |

**Entity #2: Suppliers**

**Description:** Entities from which we procure our raw materials. Each supplier provides us with various eco-friendly construction materials.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data Type** | **Description** |
| SupplierID | Integer | A unique identifier for each supplier. |
| Name | Varchar | The name of the supplier company. |
| Material Provided | Varchar | Type of material they supply. |

**Entity #3: Employees**

**Description:** Individuals who work for our company across various departments, including construction, design, supply chain management, and administration.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data Type** | **Description** |
| EmployeeID | Integer | A unique identifier for each employee. |
| Role | Varchar | The employee's job title or role within the company. |
| LocationID | Integer | Identifier for the office or site where the employee primarily works. |

**Entity #4: Building Materials**

**Description:** The eco-friendly materials that are used in the construction of the buildings, including recycled plastic bricks, bamboo, and mycelium insulation.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data Type** | **Description** |
| MaterialID | Integer | A unique identifier for each material. |
| Name | Varchar(100) | The name of the material. |
| InventoryLevel | Integer | The current stock level of the material. |

**Entity #5: Projects**

**Description:** Each project represents a unique commercial building construction job that the company has undertaken, characterized by its design, location, and construction specifics.

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Data Type** | **Description** |
| ProjectID | Integer | A unique identifier for each project. |
| Budget | Decimal(10,2) | The allocated budget for the project. |
| Deadline | Date | The projected or actual completion date of the project. |

Below are the five tables representing each entity along with their attributes and corresponding data types:

**Table 1: Construction Sites**

|  |  |
| --- | --- |
| **Attribute** | **Data Type** |
| SiteID | Integer |
| Address | Varchar(255) |
| Project Status | Varchar(50) |

**Table 2: Suppliers**

|  |  |
| --- | --- |
| **Attribute** | **Data Type** |
| SupplierID | Integer |
| Name | Varchar(255) |
| Material Provided | Varchar(100) |

**Table 3: Employees**

|  |  |
| --- | --- |
| **Attribute** | **Data Type** |
| EmployeeID | Integer |
| Role | Varchar(100) |
| LocationID | Integer |

**Table 4: Building Materials**

|  |  |
| --- | --- |
| **Attribute** | **Data Type** |
| MaterialID | Integer |
| Name | Varchar(100) |
| Inventory Level | Integer |

**Table 5: Projects**

|  |  |
| --- | --- |
| **Attribute** | **Data Type** |
| ProjectID | Integer |
| Budget | Decimal(10,2) |
| Deadline | Date |