Hands-on Exercise 2: Telephone Contact Records System

Entities: Bold
<u>Attributes: Underline</u>
Relationships   **Cardinality** **Participation**

Business Rules

A **Contact** has a unique <u>Contact ID, First Name, Last Name, Status</u> (Active, Inactive, Archived) and <u>Notes</u>.

Each **Phone Number** has a unique <u>Phone Number ID, the Phone Number Value, and a Phone Type</u> (e.g., Mobile, Home, Work).

A **Contact** can have multiple **Phone Numbers**, and each Phone Number belongs to one Contact.

A **Contact** has	**many**	**Phone Numbers**	*at most*
	1		*at least*

A **Phone Number** belongs	**1**	**Contact**	*at most*
	1		*at least*

Each **Email Address** has a unique <u>Email ID</u> and an <u>Email Address Value</u>.

A **Contact** may have multiple **Email Addresses**, and each Email Address belongs to one Contact.

Each **Group** has a unique <u>Group ID</u> and a <u>Group Name</u>.

A **Contact** can belong to multiple **Groups** (e.g., Family, Friends, Work), and each Group can include multiple Contacts.
The system records **Call Logs** for contacts.
Each **Call Log** has a unique <u>Call Log ID, Call Date, Call Time, Call Duration, and Call Type</u> (Incoming, Outgoing, Missed).

Each **Call Log** is associated with one **Contact** and one **Phone Number**.

A Contact may have zero or more Call Logs. A Call Log cannot exist without a Contact.

A **Contact** may be marked as a <u>Favorite</u>.

Each **Address** has a unique <u>Address ID, Street, City, State, and Postal Code.</u>

The system stores **Address** Information for **contacts**.
A **Contact** can have at most one **Address**, and each **Address** belongs to one **Contact**.