System Overview
The database models a stock trading company. The system keeps track of Financial Officers, Clients, and Contracts. Each Contract must be managed by exactly one Financial Officer, and each Contract must involve at least one Client. Clients can have multiple contact methods, so Contact Info is stored in a separate relation. Clients are also categorized into Individual Clients and Company Clients using an ISA specialization. Since a Client can participate in multiple Contracts and a Contract can involve multiple Clients, the Client_Contract associative entity is used to model this many-to-many relationship.

Entities and Attributes

Entity	Key Attributes (Primary Keys in Bold)
Financial_Officer	officer_id, name, ssn, salary, bonus, hire_date
Client	client_id, name, ssn, address, date_joined, ranking, client_type
Individual_Client	client_id, date_of_birth
Company_Client	client_id, registration_number, contact_person
Contact_Info	contact_id, client_id (FK), email, phone
Contract	contract_id, start_date, end_date, fee_rate, strategy_type, contract_value, kyc_approved_date
Client_Contract	client_id (FK), contract_id (FK), client_role

Additional Business Rule
A Financial Officer can manage up to 20 active contracts at the same time. This rule is included to reflect a realistic workload limit for officers.

Relationship Summary
- Financial_Officer - Contract: 1:N
  One Financial Officer can manage many Contracts, but each Contract is managed by only one Financial Officer.
- Client – Contact_Info: 1:N
  One Client may have multiple contact entries.
- Client - Contract: M:N
  Modeled through the Client_Contract associative entity.
- Client ISA Structure:
  A Client must be either an Individual Client or a Company Client (disjoint specialization).

Summary
This ER model supports contract assignments, client classification, contact management, and officer workload constraints within the stock trading system.

ER Diagram (simple Structure Overview)