

ASSIGNMENT 3.0

Relational Model for Construction Company

Info that is required to make a relational model for a construction company:

- Who are the **stakeholders** in this?
[Customer (another company/builder), raw material provider (cement, paint, wood), employees (masons, architects, supervisors), investors (shares, returns)]
- Who should be given **access** to view and manage the data in the database?
[Different views and grants can be given based on requirements. Eg: CEO, IT wing given full access and workers given partial read access.]
- What kind of data does the company want to maintain and control? What are their **use cases**?
[If they just want a digital recordkeeping for transactions, and stakeholder info, then tables like customer info, raw material info, purchase info, sale info, investor info are sufficient. But if the company wants to analyse the quality and rate of raw materials, a separate table is required to collect all vendor info and their quality to analyse the best one; and if the customers were to be found & analysed to find the best business, more tables would be required for storing that data]
- What are the **frequent** transactions required?
[Raw material procurement and money transactions are frequent, customer data and employee details are relatively less dynamic]
- What are the input and output data they deal with

A generic schema for a construction company may look like:

- Employee [id, name, age, salary, role, level]
- Customers [id, name, start_year, contact_info]
- Materials [id, name, quality, vendor]
- Purchase [material_id, project_id, quantity, rate, amount]
- Project [id, customers, project_head_emp_id, target]
- Works_On [emp_id, proj_id, role, target]
- Revenue [id, project_id, date_of_transac, amount, transaction_logs]