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| , RD Dep.  **introduction to dwh and etl** |
| Data Modeling Basics Homework |

# Task 1: Data Modelling

Here is a typical business model.

Please thoroughly examine the provided schema. It is nearly in the 3rd normal form, and we have the ability to logically divide it into business categories like Business, Customer data, and Product data.

Diagram

Description automatically generated

The task is:

* to construct a star schema **based on this model** and outline the steps involved in applying the 4-step process and denormalizing the model.
* to construct a second model known as a snowflake schema **based on this model**. To achieve this, you can apply certain normalization rules to **the star schema**.

**Important note**: It is crucial to retain all attributes and refrain from introducing any new attributes into the schema.

**Result of this task should be:**

* Image of the star schema model + description of 4 steps
* Image of the snowflake schema model + description of normalization steps

# Task 2: BUSINESS TEMPLATE – Grain

* Take another look at your datasets and review them thoroughly.
* Determine the grain of the data, which refers to the level of detail or specificity at which the data is captured. Additionally, provide a description explaining why you have selected this particular grain (4 steps).
* For each dimension and fact table, populate the tables with the relevant attributes and data types. Make sure to include all necessary information and specify the appropriate data types for each attribute.

Dim Description

<description>

|  |  |  |
| --- | --- | --- |
| Column name | Description | Data Type |
| Field Name 1 | <description> | Int |
| Filed Name N | <description> | Text |

Example with filled data

|  |  |  |  |
| --- | --- | --- | --- |
| Field Name 1 | Field name 2 | Field name 3 | Field name N |
| 1 | aaa | 123 | 1234 |

Result of this task should be updated and completed part 1.5 GRAIN in your Business Template:

* Grain Description (4-steps)
* Completed in a table view, all information on your dimensions and facts, indicating data types