CSE606 - DATA WAREHOUSE
DECISION TOOL

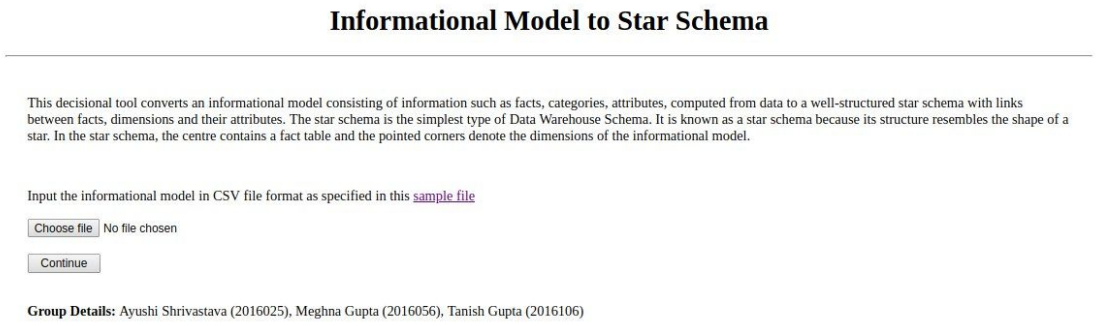
INFORMATION MODEL TO STAR SCHEMA

PROBLEM STATEMENT - Given an Information model we have to convert it to Star Schema

METHODOLOGY - We take input from a CSV file which contains multiple rows, each row represents one Information. Each row consists of Facts and Dimensions and their attributes and measures. We read those respective values and form a star schema connecting Facts with their dimensions. This is repeated for each Information and when our algorithm terminates it gives the desired Star Schema as the output.

TECHNOLOGY USED - We used Python language to code the algorithm and convert our input (Information Model) to output the Star Schema. For GUI we have used Flask and HTML.

INPUTS - Information Model



OUTPUTS - The desired Star Schema

Star Schema

Facts

Fact: Time Spent for Consultation (Time of registration, Time of consultation, Department_key, Unit_key, Patient_key, date_key,)
Fact: Distribution of Personel (Number of patients, Doctors, Nurses, Record Clerks, Department_key, Unit_key, date_key,)

Dimensions

Dimension: Date (date_key, Daily, 5 years, inserted_timestamp, updated_timestamp, inserted_timestamp, updated_timestamp,)
Dimension: Unit (name, Unit_key, inserted_timestamp, updated_timestamp, inserted_timestamp, updated_timestamp,)
Dimension: Department (name, Department_key, inserted_timestamp, updated_timestamp, inserted_timestamp, updated_timestamp,)
Dimension: Patient (rn, name, age, gender, Patient_key, inserted_timestamp, updated_timestamp, inserted_timestamp, updated_timestamp,)

Mappings

Department --> Time Spent for Consultation
Unit --> Time Spent for Consultation
Patient --> Time Spent for Consultation
Date --> Time Spent for Consultation
Department --> Distribution of Personel
Unit --> Distribution of Personel
Date --> Distribution of Personel
Unit --> Department

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