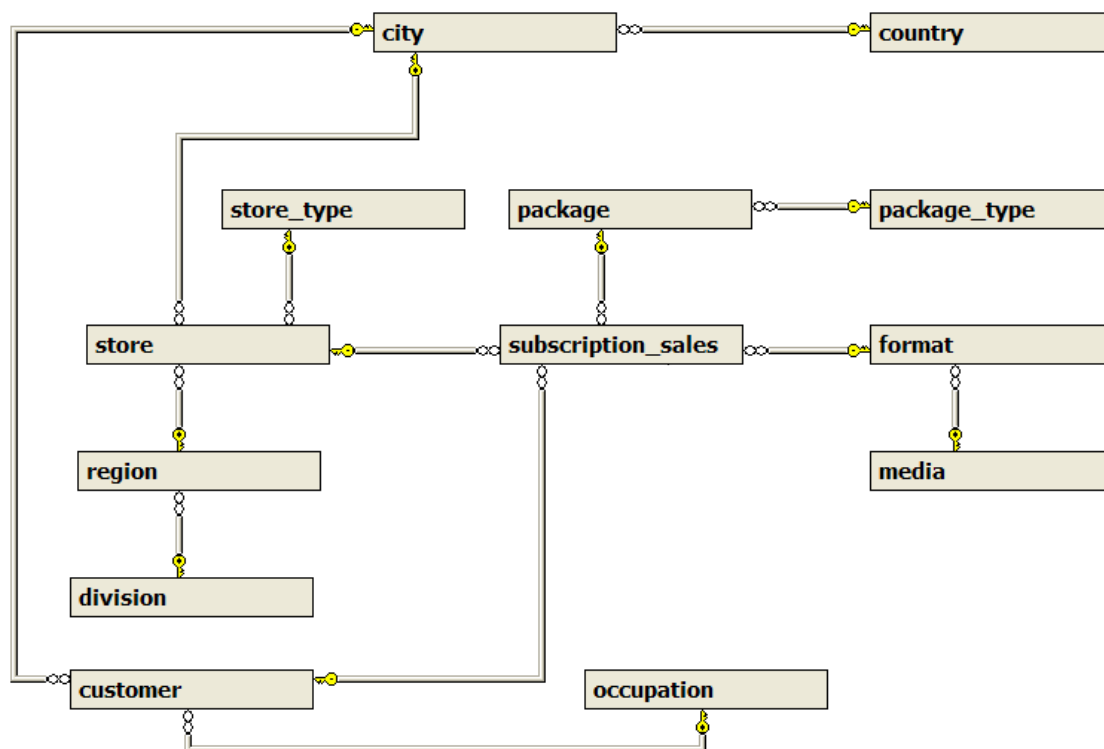


Consider the existence of a multinational company that sells music, movies, and audio books. The company has several stores operating in Portugal, Spain, France, Germany, Italy, Finland, Greece, and Ireland. All these countries are in the Euro zone. The company has an operational system that centralizes in Germany all the transactions, at the time they occur, in any of the stores. The data model concerning the part of the operational system devoted to the sales performed in the scope of packages subscribed by the customers, is represented in the following picture:



The attributes of each table are presented next. The attributes in *italic* represent the table primary key.

- City(*city_id*, city_name, country_id)
- Country(*country_id*, country_name)

- Customer(*customer_id*, customer_name, gender, e-mail_address, date_of_birth, address, city_id, zipcode, phone_number, occupation_id, date_registered)
- Division(*division_id*, division_name)¹
- Format(*format_id*, format_description, media_id)²
- Media(*media_id*, media_description)³
- Occupation(*occupation_id*, occupation_description)
- Package(*package_id*, name, package_description, package_price, package_type_id)⁴
- Package_type(*package_type_id*, package_type_description)⁵
- Region(*region_id*, region_name, division_id)
- Store(*store_id*, store_name, address, city_id, store_type_id, zipcode, phone_number, web_site, region_id)
- Store_type(*store_type_id*, store_type_description)
- Subscription_sales(*subscription_sales_id*, date, music_quantity, music_unit_cost, music_unit_price, film_quantity, film_unit_cost, film_unit_price, book_quantity, book_unit_cost, book_unit_price, package_id, customer_id, format_id, store_id)⁶

Notes:

- ¹ – Geographic division (*e.g.*, North of Europe, Central Europe, South of Europe, etc.).
- ² – Product storage format (*e.g.*, mp3; mp4; divx; avi; etc.).
- ³ – Kind of product storage format (*e.g.*, CD; DVD; BluRay; etc.).
- ⁴ – Package of songs and/or movies and/or audio books that the customer can subscribe (*e.g.*, download of 50 songs and 10 movies; unlimited downloads of movies, etc.).
- ⁵ – Kind of package that the customer can subscribe (*e.g.*, movies package; mix of songs and movies; etc.).
- ⁶ – Sales made at a special price in the scope of the songs and/or movies and/or audio books package that the customers have subscribed.

Following Kimball methodology, develop the dimensional analysis process in order to define and create the conceptual schema for a data mart that supports performing data analysis to the sales made in the scope of the packages subscribed by the company customers. All the facts, dimensions, granularity and any other relevant feature for the data mart schema model must be presented.