

Coding for Data Science and Data Management
Module of Data Management

Exercise of database design



Stefano Montanelli
Department of Computer Science
Università degli Studi di Milano
stefano.montanelli@unimi.it

Design of YELP

Design the schema of a database for storing reviews of business activities

- A business unit represents a commercial enterprise characterized by name and address (street, postal code, neighborhood, city)
- About a city, we know the corresponding country
- About a business, we know:
 - latitude and longitude details
 - the «stars» featuring the services
 - the number of received reviews

Design of YELP

- We distinguish between active/inactive businesses
- Businesses are classified into categories (multiple categories are possible for a business)
- We know the schedule of opening hours of each business. Different opening hours (open/close) of a business are possible along the week days

Design of YELP

- A set of services/features can be associated with businesses. A feature has a name and a description (multiple features are possible for a business)
- Businesses are reviewed by reviewers by assigning a certain number of stars in the range [1-5]. A business can be reviewed by a certain reviewer multiple times in different dates
- About a review, we know the number of users that consider the review as useful/funny/cool

Design of YELP

- A reviewer is characterized by:
 - name
 - date of registration in Yelp
 - number of submitted reviews
 - number of reviews that are considered as useful/funny/cool by other users
 - number of fans/followers
 - average number of stars provided in the submitted reviews
- A reviewer can be friend with other reviewers