



Project: Mini-Facebook Database Systems

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P.01

Project Phase 1: **Presentation of results on May 24, 2019 between 8 am and 10 pm**

Task 1: Warm-Up! (10%)

- 1 Read the project description in the KVV (kvv.imp.fu-berlin.de). All files relevant to the project can be found under *Resources* in the folder *Project*.
- 2 Download the data sets of the Mini-Facebook from the KVV (kvv.imp.fu-berlin.de) to get an overview of the structure of the data.

Task 2: Entity Relationship Model (50%)

- 1 Become familiar with the structure and the format of the given Mini-Facebook data. The data was extracted from the microblogging service Twitter¹. Use the data to model the social network "Mini-Facebook".
- 2 Create an ER model in min-max-notation suitable for data processing, visualization, and analysis of the social network "Mini-Facebook". Your model should properly relate the users to their attributes and their relationships with each another.

Your model should include the facts below:

A social network such as "Mini-Facebook" is an online service that enables users to present themselves, communicate, and build relationships with one another.

Mini-Facebook users have a unique ID, a name, an age and a city of residence. The age is determined by the timespan between the first and the last tweet of the user. Furthermore, every user has a screen name. Mini-Facebook users have up to two hobbies that may change depending on their interests. The two most frequently tweeted hashtags determine the user's hobbies. Users have an income, which is equal to their number of tweets. Some users wear glasses, some do not. Whether they wear glasses or not is determined by whether or not they are a verified Twitter user.

Mini-Facebook users have relationships to one another. Some Mini-Facebook users are fans of other Mini-Facebook users. Mini-Facebook users also have romantic relationships. Besides being single, they may also have a date or are married. If a Mini-Facebook user follows another

¹Twitter: <https://twitter.com>



user, she/he is her/his fan. If two users have retweeted the each other exactly one time, they have a date. If two users have more than one mutual retweet, they are in a marriage. If a user has no mutual retweets, they are single.

Task 3: Relational Model (30%)

- 1 Transform your ER model into a suitable relational model.

Task 4: Presentation of results (10%)

- 1 Book a free timeslot in the KVV (kvv.imp.fu-berlin.de) for the presentation of your results of the first project phase. For booking of a free timeslot, use the *Sign-up* tool. Book only one timeslot for your team!
- 2 Create a presentation with a software of your choice to present your results of the first project phase.
- 3 Present your results within 10 minutes on May 24, 2019 at the time of your booked timeslot. You have 10 minutes for the entire presentation, this means setting up and removing your devices plus the actual presentation. The presentations will be held between 8 am and 10 pm in room 019 at Arnimallee 3-5.

Your presentation should contain 5 slides:

- ▶ Slide 1: Title slide
- ▶ Slide 2: The team: contains name, course of studies and semester
- ▶ Slide 3: ER model: contains the ER model in min-max-notation
- ▶ Slide 4: Relational model
- ▶ Slide 5: Thank you/questions slide

It is sufficient if one group member presents the results of the first project phase. All group members will receive the grade of the first project phase.