Fachbereich
Wirtschaftswissenschaften

Institut für Wirtschaftsinformatik
Professur für Mobile Business & Multilateral Security
www.m-chair.de

Prof. Dr. Kai Rannenberg
Telefon   +49 (0)69-798 34701
Telefax   +49 (0)69-798 35004
E-Mail kai.rannenberg@m-chair.de

Frédéric Tronnier, M.Sc.
E-Mail frederic.tronnier@m-chair.de

Exercise
Business Informatics 2 (PWIN)
Summer Term 2021

Exercise II:
Information Systems II & III

The InstaMatch® scenario is required in order
to solve some of the exercises. It can be found
in a separate document.

Exercise 1: Models for the architecture of Information Systems

a) Please sketch a three-tier and a model-view-controller concept and explain the function of each component.

b) Please determine to which component the following InstaMatch® elements belong in each concept:
   - The form for the input of personal information (e.g. gender, age, etc.) for users
   - The database for storing the contact list and calendar of a user
   - The software module containing the matching logic for the personal profiles of users

Exercise 2: IS Architecture Concepts

a) What are the advantages and disadvantages of a Cloud Computing architecture in comparison to a central server concept?

b) What kind of Cloud Computing services do there exist? Assuming the Cloud Computing concept is suitable for the InstaMatch® service, what type of Cloud service (e.g. infrastructure as a service) should be booked and why?

c) Briefly explain the concept of Edge Computing Architecture and why it is gaining importance.

Exercise 3: Mobile Infrastructure and Ecosystem

a) What is a SIM and why is it needed?
b) What is the difference in Google's and Apple's business model?
c) What types of apps do there exist and what is the difference between them? Which type is best suited for the InstaMatch® service and why?

Exercise 4: Mobile Information Systems

a) Name three particularities of mobile devices that make them attractive for Marketers.
b) Explain how a two-sided market works. Is InstaMatch® using this kind of business model? Please reason why or why not.
c) Discuss the area of conflict between the benefit of the InstaMatch® service collecting context information about users and the demand of users to maintain their privacy.