

## Mobile and pervasive computing

### Study material:

- Dave MacLean, Satya Komatineni, Grant Allen: Pro Android 5, Apress, 2015 (Available for download with University IP address from <https://link.springer.com/book/10.1007/978-1-4302-4681-7>)
  - Topics that you should know: Intents, Activities, Activities' lifecycle, Layouts, Views, ListViews and Adapters, Fragments, SQLite Databases
- Dan Chalmers: Sensing and Systems in Pervasive Computing, Springer, 2011 (Available for download with University IP address from <https://link.springer.com/book/10.1007/978-0-85729-841-6>)
  - Topics you should know: Introduction, Experiments and results, Classification and use of context, Error in sensors' data
- Arduino programming (You can use Tinkercad for your practice with Arduino <https://www.tinkercad.com/>)
  - Projects to study:
    - 02 Starter Kit: Spaceship Interface: [https://youtu.be/w-C5Ne00\\_wM](https://youtu.be/w-C5Ne00_wM)
    - 04 Starter Kit: Color Mixing Lamp: <https://youtu.be/Xq8EYTnCiiY>
    - 05 Starter Kit: Mood Cue: [https://youtu.be/ybG6TLamn\\_I](https://youtu.be/ybG6TLamn_I)

### Project Assignment

Create a Notes Management app. The user must be able to: (1) Create and generally manage notes' categories (e.g. family, work, friends etc.), (2) Create and generally manage notes and assign them to one or more categories. Each note should have a name, one or more categories, note's text and it should also have pictures. (3) Browse notes by category, (4) Search a note based on criteria (e.g. category and name).

### Delivery and examination date

The assignment can be examined one week after delivery and after agreement with the professor.

Please notice that during examination also some theoretical questions can be asked regarding the other topics in this course (i.e. pervasive computing and Arduino programming).