- smart home
  - introduction
    - topic and motivation
      - 1982: coke vending machine
        - 2002: IoT introduced to industry
          - IoT = connect devices and manage them centralized
      - smart home = application of IoT
        - new opportunities for economization and security
      - start ups push smart home development
        - big companies seek dominance by acquiring start ups
      - system problems
        - -> cross compatibility is big issue!
    - limitation
      - systems used
      - no psychological themes
      - time
    - goals
      - measurements:
        - define measurements fro suitable smart home environment in the eyes of the user
        - cross compatibility of vendors and devices
        - minimalism in extra hardware
      - rating of existing systems
      - middleware for cross compatibility
    - tasks
      - terminology
      - usecases
      - overview of solutions
      - solution
  - theory
    - smart home
      - what is a home?
        - form follows function
          - sullivan rule
        - abstractions for functions at home
          - protective
          - economic
          - social
        - permanent and semi-permanent residences are in the scope of smart home
      - definitions of smart home and iot
        - improve indoor environment and living quality
        - security
        - energy efficiency
        - remotely controlled
        - identifiable objects and virtual representation
        - automation
        - computing power has come to an end
      - feature-ism
        - to keep attraction, feature-ism is done
          - ergo minimalism is key to productivity
          - feature-ism stinks!!
        - futureproofness for later measurements
      - synopsis
        - mapping
          - smart home functions
          - basic functions of a home
        - in order to get measurements
          - costs are mapped to
            - single household
            - family with two children
              - only parents are paying
          - and evaluated as cost per person
    - automation in smart home
      - usecases
        - light
        - lock
        - thermostat
        - switch
        - custom
    - basic approaches
      - Apple
      - Samsung
      - Google
    - Battle for Standards
      - Homegateway
      - radios
      - cross compatibility
      - fog underneath the cloud
      - user vs company
    - Distinct Systems
      - homeKit enabled
        - Lutron Electronics
        - Insteon Technologies
        - Elgato Eve
      - non homeKit
        - raspberry pi
        - wemo
      - older systems
        - z-wave
    - Homekit and SDPvNext
    - Constraints
    - Development Tools
    - Middleware