**Initial meeting with the customer**

* Purpose/vision: customer creates app for digitally signed documents
  + The credibility of the signature is given by an X.509 certificate and a CA
  + Adobe Acrobat verifies the certificate automatically -> using CA hierarchy and CRL/OCSP -> validity of the certificate at the time of signing
* Problem:
  + In the production, certificates issued by global CA are used. These are however very expensive – YOSO’s customer cannot provide spare certificates for testing
  + To test the application, YOSO needs to deploy the app in a testing environment with production certificates (need of almost production-like environment) or to test it in the production environment while disabling end-users to access the app (downtime)
  + Managing testing certificates is rather complicated for the developers
* Possible certificate use-cases:
  + Digital signature
  + Authentication
  + HTTPS (SSL/TLS)
* Requirements (Minimum Acceptance Criteria):
  + A single lightweight application
  + Linux server application
  + No vertical scaling required
  + No external database (embedded database or FS can be used)
  + Creating root/intermediate CAs (tree of CAs)
  + Creating end X.509 certificates issued by one of the created CAs
  + Possibility to revoke the certificate
  + CRL + OCSP endpoint for each of the CA for verifying the validity of the certificates
  + Web GUI
* Extension requirements:
  + OpenSSL user templates (in case OpenSSL is used)
  + Console API
  + WS interface (for automated test tool – script requests a new certificate just for the test)
  + Docker
  + Authentication (would be nice, but the tool will run in the intranet)
  + Categorization of the certificates – eg. possibility to choose the SQLite database file
* Actors:
  + Few administrators (1-3)
  + Automated test script
* Technologies:
  + Crypto library of our choice or OpenSSL
* Delivery:
  + Packaged SW (.jar, .war)
  + In case Python is chosen – Linux systemd script
  + DEMO meetings: delivery 1-2 days before the meeting – in our environment accessible to the customer.
  + Zipped GIT repo
* Toolchain:
  + The team is allowed to use the tool infrastructure provided by the ASWI lecturers (KIV GitLab and Redmine)
* Documentation:
  + Diagrams (use-cases, components, classes)
  + Code comments
  + User & Administration documentation – including step-by-step screenshots
    - Administration – installation, restart, updates, configuration, database, backups
* Communication: Via email
* Demo meetings: Bi-weekly on Friday at 2pm (starting 12.03. 2021)