Tugas Besar 2019

IF4052

Service Computing

Goal

- Mampu merancang solusi (analisis dan desain) yang fokus pada satu domain tertentu
- Mampu mengimplementasikan software system berorientasi service
- Mampu mengintegrasikan satu service-oriented system dengan lainnya

Domains

- E-commerce
- Logistic
- Payment gateway
- Flight booking
- Hotel booking
- Ticket for event

Pemilihan Domain dan Kelompok

- Pilih 6 domains yang disepakati bersama satu kelas
- 3 orang per kelompok
- Satu kelompok satu domain
- Satu domain di-assign **dua atau lebih** kelompok

Tugas

Top-down approach:
- Analisis
- Desain
- Implementasi
- Integrasi

Analysis & Design

- Perform analysis and design of the SOA-based application on the following aspects:
  - Problem description
  - Business requirements
  - Business services
    - Task-centric services (at least 2) → BPMN
    - Entity-centric services (at least 3) → Entity description and class diagram
  - Service architecture → component diagram, SoAML
- Deliverables:
  - Document describing all of the above aspects
  - Use Google Drive, the document is growing for the next stages (use version history)
- Deadline: 18 Oktober 2019

Analysis & Design II

- Discuss with other groups
- Decide which processes & services to implement
- Agree and define the same service descriptions
  - at least 1 task service and 2 entity services
- Deliverables:
  - Updated Document for Analysis and Design (Google Drive)
  - Agreed Service Descriptions → WSDL (Google Drive)
- Deadline: 25 Oktober 2019

Implementation

- Implement entity-centric service → WSO2 ESB Data Service
- Implement business process → BPMN running on WSO2 BPS
  - Each process must use at least one external services (a utility service or another process)
  - If needed, use mock service to provide external services
- WSO2 Server will be provided (TBD)
- Deliverables:
  - Deployed data services to WSO2 ESB Server
  - Deployed BPMN to the WSO2 BPS Server
  - Deployed service description to the WSO2 API Manager
  - Document describing the implementation (Google Drive as in Analysis & Design)
- Deadline: 8 November 2018

Integration

- Integrate all external services using WSO2 ESB
  - The following ESB mediators must be used at least once:
    - Enrich, filter, transform, custom class
- Deliverables:
  - Deployed ESB mediators on the WSO2 Server
  - Updated service implementation to use the mediated services
  - Document describing the integration (use the same Google Drive document)
- Deadline: 15 November 2019