ID2207 - Modern Methods in Software Engineering

Homework 4

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September 2021

Question:

Based on the SEP business description that you have in Canvas, develop a system design and object design document which includes:

- **Subsystem decomposition structure (using class diagrams)**
  Expected output in the document:
  1. A class diagram showing the decomposition.
- **Mapping subsystems to processors and components (hardware/software mapping) using UML deployment diagrams.**
  Expected output in the document:
  1. UML deployment diagram
  2. Brief description about the selected technologies and software components.
- **Persistent storage solution for the problem.**
  Expected output in the document:
  1. List of persistent objects
  2. Brief description of the selected storage managment strategy
- **Access control, global control flow, and boundary conditions.**
  Expected output in the document:
  (Access Control):
  1. Access matrix
  2. Brief description about security, authentication/authorization strategy, confidentiality of data, and network/infrastructure security.
  (Global control flow):
  1. Brief description of the selected control flow for the system
  (Boundary conditions):
  1. Boundary use cases
- **Applying design patterns to designing object model for the problem**
  Expected output in the document:

1. Brief description about the selected design patterns and why/how you are going to use them

- **Writing contracts for noteworthy classes**

  Expected output in the document:

  1. contracts described in OCL

Deliverables

- ❏ A report in PDF format