Assignment 1&2: Software Engineering

Note: This assignment is for students of subject **Software Engineering**, Spring-2021, FPT
The more you know, the more you understand you do not know much

Working in team (discussion): Each team selects a topic given in the following:
- Book shopping online
- Clothes shopping online
- Phone shopping online
- Electronic shopping online
- Computer shopping online
- Library management system (may borrow books online)

ASSIGNMENT 1

Presentation: Friday 29/01/2021 (PRESENT IN INDIVIDUAL)
1. Investigate online shopping systems such as Vietject Air, Vietnamairlines, Tiki, ebay, amazon,… to discover activities of these systems *(each student/1 system)*
2. Draw context diagram for your system
3. Propose functionalities for your system & draw use case diagram
4. Writing scenarios and user stories for use cases *(each student/5 use cases)*
5. Constructing class diagram (analysis)
6. Constructing logical data model

ASSIGNMENT 2

Presentation: Friday 22/03/2021 (PRESENT IN INDIVIDUAL)
1. Constructing architecture of the system
2. Constructing activity diagrams *(each student/1 diagram)*
3. Constructing sequence diagrams *(each student/1 diagram)*
4. Constructing class diagram (design)
5. Using pattern DAO for designing classes *(each student/1 diagram)*
6. Coding some class with pattern *(each student/1 diagram)*

References

[1] https://www.visual-paradigm.com/download/
https://www.visual-paradigm.com/tutorials
https://www.visual-paradigm.com/guides

[2] UML organization web https://www.uml-diagrams.org/

[3] DFD model
https://www.visual-paradigm.com/tutorials/data-flow-diagram-example-food-ordering-system.jsp

[4] ACTIVITY-SWIMLANE
https://online.visual-paradigm.com/diagrams/features/flowchart-tool/swimlane-diagram-tool/

[5] STATE DIAGRAM
https://www.visual-paradigm.com/guide/uml-unified-modeling-language/what-is-state-machine-diagram/

[6] ENTITY RELATIONSHIP DIAGRAM
https://www.visual-paradigm.com/guide/data-modeling/what-is-entity-relationship-diagram/

[7] User Stories & acceptance criteria
https://www.altexsoft.com/blog/business/acceptance-criteria-purposes-formats-and-best-practices/

[8] data model: https://online.visual-paradigm.com/knowledge/visual-modeling/conceptual-vs-logical-vs-physical-data-model/