

# ITSS SOFTWARE DEVELOPMENT/ SOFTWARE DESIGN AND CONSTRUCTION

## Lab 05 - Use case Analysis

Lecturer: NGUYEN Thi Thu Trang, [trangntt@soict.hust.edu.vn](mailto:trangntt@soict.hust.edu.vn)

### 1. SUBMISSION GUIDELINE

You are required to push all your work to the valid GitHub repository complying with the naming convention:

"<MSTeamName>-<StudentID>.<StudentName>".

For this lab, you have to turn in your work twice before the following deadlines:

- **Right after class:** Push all the work you have done during class time to Github.
- **10 PM the day after the class:** Create a branch named "*release/lab05*" in your GitHub repository and push the full submission for this lab, including in-class tasks and homework assignments, to this branch.

In this lab, we will get familiar with the architecture design process and practice with communication diagrams, analysis class diagrams and the unified analysis class diagram for the Case Study.

You are asked to work individually for this section, and then put all your files (including both .astah files and exported PNG files) and sub-directories in a parent directory, namely "*Architectural Design*". After that, push your commit to your individual repository before the announced deadline.

### 2. UC "PAY ORDER"

#### 2.1. COMMUNICATION DIAGRAM

**Step 1.** Create a new communication diagram

**Step 2.** Drag all the classes and related actor(s) from the tree and drop it on the newly created diagram.

**Step 3.** Allocating responsibilities to classes

**Step 4.** Save your work.

## 2.2. ANALYSIS DIAGRAM

From either the communication diagram or the sequence diagram of UC “Pay Order” made in the previous lab, we can achieve the analysis class diagram. Please remember to add necessary attributes for classes, based on the input/output data specifications.

## 3. UC “PLACE ORDER”

Create communication diagram for the use case “Place order”.

From either the communication diagram or the sequence diagram of UC “Place Order” made in the previous lab, we can achieve the analysis class diagram. Please remember to add necessary attributes for classes, based on the input/output data specifications.

## 4. UC “PLACE RUSH ORDER”

Create communication diagram for the use case “Place rush order”.

From either the communication diagram or the sequence diagram of UC “Place rush order” made in the previous lab, we can achieve the analysis class diagram. Please remember to add necessary attributes for classes, based on the input/output data specifications.

## 5. MERGED ANALYSIS CLASS DIAGRAM

**Merged Analysis class diagram:** In this assignment, **you are asked to draw the merged analysis diagram for “Place order”, “Pay order” and “Place rush order”.**

When you complete the tasks, please export your work to PNG files and push them to GitHub. Do not forget to add necessary attributes for classes, based on the input/output data specifications.