

**Deadline: October 13, 2023 before Noon**

### Practical information

- ☐ Ask your questions on Slack or make an appointment to meet with the TA.
- ☐ Teams: As Assigned.
- ☐ Each team submits only *one full solution*.
- ☐ The submission should consist of a simple **HTML file** (called report.html) and any additional file required (.java, .txt, .jpg and whichever other files you want to submit). It should have explicit references to *all submitted files* as well as inline inclusion of images. In the header of the report file, you must specify: the *name* of the student, student's *CWID*, student's *email* address and the *time spent* on the assignment (in hours, for statistical purposes). Your solution should be entirely included in the body of the report file. Specify any extra assumptions or your own clarifications if needed. Then for each task, describe your solution in the form of a report.
- ☐ The **report.html** must be a complete report. Failure to producing this report will result in a penalty of 5% on your total grade.
- ☐ All submitted files should be referred to from within the report file; otherwise, they will not be accessible during grading! Create a ZIP file archiving all your files. The archive should have only a folder as its root. The folder and the archive must have the same name. Submit the ZIP file in Blackboard.
- ☐ We will use group submission in this project. Only one team member (a different submitter than Project 1) shall submit the full solution (as a ZIP file). Mention who the submitter is in the **Header table**. Additionally, the Report.html must include a **Task Distribution table**. This table should outline all the tasks performed and what percentage each team member contributed. **If the balance is not evenly spread among all, the grades for each team member may differ.** The Report.html solution folder will also include project tasks listed below.
  - ☐ Each team member must have their own Report.html (using the format of: **FirstNameLastNameTeamXReport.html**, in the team's solution ZIP file)
  - ☐ With only the **Header table** (submitter identified), **Task Distribution table** (affirming that you all agree on it), **members original Stereotype Diagram**, and **members original Activity Diagram**. **All images must be visible or there will be a point deduction.**
- ☐ The submission medium is Blackboard.
- ☐ You may re-submit as many times as you wish before the deadline passed.

### Goals

This assignment will make you familiar with *the analysis of requirements and UML Activity & Stereotyped Class diagrams*.

The grading scheme is as follows:

- ☐ Analysis description (10%)
- ☐ Image & datafiles of your Stereotyped Class diagram using UMLentino (20%)

- ☐ Image & datafiles of your Activity diagrams using UMLentino (65%)
- ☐ Bitbucket statistics (5%)

Upload *all* images, datafiles, source files and result files to Blackboard and provide links to *all* of them from your Report.html file. Also, include any additional information the TA might require to correct the assignment. **Your submission should consist of one directory called: TeamX\_Analysis (ex. Team 13\_Analysis).**

## Assignments

Given the requirements, you have gathered for the Chocoholics Anonymous (ChocAn) project, in this assignment, you will perform the analysis of the system.

### Task 1

Now that you are familiar with the functional model of the ChocAn project, you need to estimate roughly what is needed for the system to operate. In a paragraph of **100 words (+/- 10%)**, estimate the following:

- ☐ What sections will be computerized and how;
- ☐ Where the data will be stored;
- ☐ What hardware will be needed;
- ☐ How the ChocAn system you develop will interact with other systems;
- ☐ How users will interact with the system.

Note that you are *not* required to perform a structured system analysis as in your textbook.

### Task 2

Produce the object model of the ChocAn system by extracting the entity, boundary, and control classes. **Draw a UML stereotyped class diagram** of the system which shows the classes you identified, the data they require as attributes of these classes, and the relationships between the classes.

### Task 3

Produce the dynamic model of the ChocAn system by showing the workflow of the different activities and actions the system should do. **Draw one main UML activity diagram without extends or includes** and **draw one activity diagram per use case with the appropriate extends or includes for that use case**. Note that you may need to revise the use cases previously produced during Project 1 as you are gaining more and more insight on what the system should be and how it should behave. Since you have studied agile development, there is a change to the use cases.

**Agile Update 1:** Verify User (Operator, Manager, Provider) is new that must be included from this point forth.

**Agile Update 2:** Include the two (2) selected generic security user stories into your activity diagrams.

## Additional Resources

The UML tool to use is UMLentino. Export you diagrams as **PNG image files**.

Updated: 10/3/23