

## INFO8231 Systems Development: Concepts & Analysis

### Assignment 2

This assignment is a continuation of **A1** and **INFO8231 A1 rules** will apply.

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#### Before you begin:

##### In MS Teams:

- ☐ Download the **A2\_ITCPA\_TeamYY\_Template.docx** from **eConestoga** and copy to your team's **General\A2** folder on your MS Teams **Files** tab.
- ☐ Rename your document to **A2\_ITCPA\_Team#.docx**
  - Put your entire **A2 solution** in this single **MS Word** document.
- ☐ Fill out the **Assignment 2 header** with your section, team # and student names.

*Reminder: Team members must sign their own name.*

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#### A. Individual Requirement

- ☐ Complete the Visual Paradigm tutorial: **Lab\_UseCaseDiagram.pdf**.
  - ☐ Read and study the **ITCPA Case Study** documents in **A1**.
  - ☐ Review the sample open items in **A2\_ITCPA\_Open\_Items.docx**
    - Add new open items (if any) for your team to keep track internally.
    - *Do not submit this open items document.*
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#### B. Team Assignment 2

You are working with the **IT Capstone Project Approval (ITCPA)** system case study. The major subsystems of the proposed solution are:

- External Client Proposal Subsystem (**ECPS**)
  - Capstone Project Matching Subsystem (**CPMS**)
  - Student Team Management Subsystem (**STMS**)
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## Task 1: ITCPA CPMS Event Table using User Goal Technique

- ☐ Review the SADCW Chapter 3 slides including Slide 28 and Slide 29.
- ☐ Based on the **A1 Mock Case Study**, identify **3** events and use cases *related to Program Coordinator role* for CPMS and fill out the **Event Table 1** below.
- ☐ For **CPMS**, assign the following Use Case IDs: **UC11**, **UC12** and **UC13**.

**Subsystem Name:** \_\_\_\_\_ < ... > \_\_\_\_\_

Event Type (external/ temporal/ state)	Event (full description)	Trigger	Source	Use Case ID	Use Case (verb + noun)	Response (noun)	Destination
...	...	...	...	UC11	...	...	...
...				UC12			
...				UC13			

**Table 1: Event Table using User Goal Technique**

## Task 2: ITCPA Event Table using Event Decomposition Technique

- ☐ Determine your subsystem to work with for **Event Table** below.
  - For *odd-numbered teams* (SA-1, ..., SA-13, ..., SA-25, ...), fill out the event table below using **STMS**
  - For *even-numbered teams* (SA-2, ..., SA-14, ..., SA-26, ...), fill out the event table below using **ECPS**
- ☐ Based on the **A1 Mock Case Study**, identify events and use cases *related to the specific role* for the subsystem assigned to your team (STMS or ECPS) and fill out the **Event Table 2** below.
- ☐ Use the *event decomposition technique* to find **three** or more external events.
- ☐ Use the *event decomposition technique* to find at least **one** temporal event (i.e., actor is “Timer”).
- ☐ Use the *event decomposition technique* to find at least **one** internal or state event.
  - Tip: Use “database” as an internal event trigger. Define the internal event in terms of the state of the data that has changed.
- ☐ Assign the Use Case IDs from **UC21** to **UC25** (or higher).

Subsystem Name: \_\_\_\_\_ < ... > \_\_\_\_\_

Event Type (external/ temporal/ state)	Event (full description)	Trigger	Source	Use Case ID	Use Case (verb + noun)	Response (noun)	Destination
...	...	...	...	UC21	...	...	...
...							

**Table 2: Event Table using Event Decomposition Technique**

*Important: Only refer to the ITCPA background information to identify events and use cases. You may identify additional related use cases implied by the background information. However, do not create or assume any new events that are outside the scope of the problem domain.*

### Task 3: ITCPA Use Case Diagram (UCD)

☐ Using the **ITCPA Table 1** and **Table 2** above, draw a single **UCD** for the entire **ITCPA System**.

#### UCD Tips:

- ☐ The number of use cases in your **Use Case Diagram (UCD)** must match your ITCPA Event Tables in Task 1 and Task 2 above.
  - ☐ Reminder: UCDs must have actors, use cases with use case IDs. The automation boundary must have an appropriate system name.
  - ☐ Ensure the Use Case IDs in the UCD match the IDs in the Event Tables.
  - ☐ Iterate Task 1 to Task 3 until they are all complete and consistent.
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#### Reminders:

- ☐ Copy the **use case diagram** to your solution document **A2\_ITCPA\_Team#.docx**.
  - ☐ **Checkpoint:** Use the **A2 marking sheet** to self-evaluate your team solution.
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#### Submission Requirements:

- ☐ Submit your docx and vpp solution files to the **Assignment Dropbox** on **eConestoga** (i.e., **A2\_Team**).