Software Design I Season 2024-I Partial Project Definition

Eng. Carlos Andrés Sierra, M.Sc.

Computer Engineering Universidad Distrital Francisco José de Caldas

Remember, here you had been hired as a software engineer team member. You have been working on a project of backend platform and you have been asked to deliver a partial document with some specifications described as follows:

- 1. Write the description of your project. Define the *stakeholders*, business model, tools to use, anything you consider relevant.
- 2. Make the list of user stories related to your project, this is your project scope definition. Hint: You can use the user stories template

As a _<role>_, I want _<action>_, so what _<purpose>_.

3. Create the conceptual model of your project. So, you have to build next *UML diagrams*: deployment diagram, activity diagrams, sequence diagrams, and state diagrams.

Hint: You can use the draw.io tool to create these diagrams.

4. Create the CRC cards and the Class Diagram (if you need to separate by components create several ones), to define the backend architecure of your project using design patterns and concepts watched in the course.

Hint: Go through each UML diagrams and define entities, data structures, relations, a system analysis related with your business model.

- 5. Define the *ER Diagram* to define the data model you will have in your application. *Hint: Based on your Class Diagram you can build, also remember all relationships* should be one-to-many.
- 6. Define what information will have your application persisted by default in order to apply tests.

Hint: You can use the faker library in Python to generate data. Documentation here

Carlos Andrés Sierra, Computer Engineer, M.Sc. on Computer Engineering, Titular Professor at Universidad Distrital Francisco José de Caldas.

Any comment or concern related to this document could be send to Carlos A. Sierra at e-mail: cavirguezs@udistrital.edu.co

In addition, you must start to write a draft of both an IEEE formated paper and a poster to explain your project and how it adds value to the company.

Deadline: April 10th, 2024, 12:00