### **Project Beginning**

Software architecture design using C4 model



## A3.3 Learning Activity

Initial phase of the SCRUM framework for the case study.



### Instructions

- Based on an investigation and the provided document by the teacher, realize the documentation for the project using scrum framework for the case study.
- The activity must be realized using a platform like Notion, or Confluence, and must be send in PDF style, named with the nomenclature A3.3\_ActivityName\_StudentName.pdf
- Your repository, besides containing a readme.md inside the root directory containing student's information, team, subject, career, teacher's information, and also a logo or pictures, must contain a section of contents or index.



# Development

- 1. Create the following diagrams for the case study:
  - Context diagram.
  - Container diagram.
  - Component diagram.
  - Class diagram



### Diagrams



## Conclusions

#### Cesar Arredondo Bonilla

With this practice, it was possible to understand how the application of the C4 model is carried out to a project, more specifically applied to the case study that we are working on, which is the conservation of knowledge. Among the 4 points that C4 handles, the first corresponds to the context and in this we made a simple diagram in which the users of the system, the system and some things outside the system such as the report server are shown. Then, with the container diagram, I detail a little more how the Dataligth system is made up, in which it is already shown that we use web applications and mobile access, in addition to databases, the technologies that we use and that we have an API that is in charge of controlling everything. With the following diagram, which is the component diagram, the API is detailed showing system functions and finally, in the class diagram, it is specified which classes make up any module of a software function. In general, there were some problems at the beginning since it was necessary to think about what components each diagram required and as one depends on the other, it was important that they all look good.

#### Chavez Vargas Javier

With this activity, the realization of the C4 models of the data light platform is put into practice where the context diagram is used to explain how the system behaves and how all its components interact in a general way, then the container is made the which explains how one of the systems (in our case, the platform) emerges in the technologies used and how it is based, such as web, mobile and under which the platform works, then the component is made which describes the technology used in the container and describes each of the possible actions within that container, here are the platform actions such as login, create topics, etc. Finally, the class is made, which explains the classes that interact in each of the actions of the platform. It is easy to make these diagrams, you just need to pay attention to how the platform is composed and you can help yourself in the previous diagrams made to facilitate its realization.

#### Mancilla Mora Moises

By doing the activity we were able to see different levels that make up the project. A context diagram was developed where we can see how the different actors relate to different systems that make up the project. Of the different systems that are used, we analyze the system to be developed and elaborate a content diagram showing all the technologies used in the system, where it is also observed how they are related to each other and how. Afterwards, a component diagram of a container was made, where the different components that make up the container are explained here, which can be functions that the container performs. The last diagram that was made was the class diagram where it is described how the different classes that make up a component are related and what actions it does. There were almost no problems at the time of elaborating this activity since things had to be elaborated that we had already analyzed in other activities. The C4 Model helped us understand the project from different points of view.

### Valerde Sanchez Alejandro

The practice consisted of applying the C4 model with the DataLight project, which gave us four different diagrams that show us some. The context diagram in a very general way helped us to capture the actors and the system in general so that anyone can visualize it in a simple way for anyone. The container diagram already delves into the software or tools with which the platform will work. The component diagram in a more abstract way shows which models will be used in the platform and the relationship they have. Include a bit of the content diagram. Finally, the class diagram shows us the interfaces and classes that will be used to implement the elements by the user.



Criteria	Description	Score
Instructions	Is each one of the points indicated in the instructions section fulfilled?	10
Development	Was each one of the points requested within the development of the activity answered?	60
Demonstration	Is the student present during the explanation of the functionality of the activity?	20
Conclusions	Is a personal opinion of the activity included by each of the team members?	10

