

Experimental Session: “Green Route” (value@GRL method)

Participant ID:.....

Date:.....

This activity aims at **creating a value model** following the procedure indicated in the value@GRL method.

Read the following statement that describes the situation of an organization and perform the tasks listed below.

Fill in the Start time (hh: mm) __: __

Statement

Imagine you are a business consultant specialized in smart city applications and you need to define a **value model using the value@GRL method** for a customized green route application.

The city of Valencia is working to become a smart city offering technological solutions to make life easier for its citizens. One of the applications the city wants to offer is an ecological route planner, called the Green Route. These types of applications plan for each user a personalized itinerary for the trips that he / she wants to make, taking into account the user's preferences (for example, if he has any allergies), trying to select the shortest and least polluting routes, avoiding areas with high pollution levels, etc.

By using the Green Route application, users are interested in getting the best route possible that meets their preferences. To do this, users are interested in defining a custom profile where they indicate their preferences for the application to take them into account. To help the route to adapt to its characteristics, the user can have environmental device sensors that will send information about the environment in the user's current position. The application will also take into account the historical information that the user has provided. Once the route is requested, it must be displayed on a map. Naturally, the user's satisfaction with respect with the received routes and the application usability is very important.

The main function of the Green Route application is to determine the best route based on user profile and environmental information. To determine the best route, the application must obtain information from the user profile and analyze the historical data provided by the user. In turn, it must obtain the necessary environmental information from various sources to establish the route. On one hand, it will obtain the environmental information collected by the user in his/her current position and on the other hand it must access a cloud service provided by the FIWARE laboratory that offers environmental data services. FIWARE also allows Green Route application to publish data obtained from its users by treating this information as Open Data.

In order to fulfill its function, the Green Route application also uses services of a Geographic Information System (GIS). The data manager of the Green Route application accesses the GIS service to obtain the spatial information, and to provide the visualization of the data, by using its service of visualization of data in maps. Once the visualization of the best route for the user with all the data obtained is ready, it will be presented on the map to the user.

Fill in the Finish time (hh: mm) __: __

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Tasks

Participant ID:.....

Fill in the Start time (hh:mm) __: __

1. **Definition of actors:** The objective of this task is to define the relevant actors for the business activity.
In the **drawing sheet**, draw the actors involved in this context (main actor, external actors, and the system actor).
2. **Modeling of intentional elements:** The objective of this task is to define the intentional elements of the main actor and the external actors (goal, soft-goals, and tasks).

In the **drawing sheet** you must:

- a. Identify and draw the intentional elements of the main actor. Draw the intentional elements (goal, soft-goals, and tasks) within the boundary of the main actor.
- b. Identify and draw the intentional elements of external actors. Draw the intentional elements (goal, soft-goals, and tasks) within the boundary of each of the external actors.

3. **Modeling relationships:** The purpose of this task is to define the links between the intentional elements within the boundary of the main actor and the external actors. Not the system actor.

In the **drawing sheet** you must:

- a. Identify and draw the links between intentional elements of the main actor. Draw the links (contribution and decomposition) between the intentional elements within the border of the main actor.
- b. Identify and draw the links between intentional elements of external actors. Draw the links (contribution and decomposition) between intentional elements within the boundary of external actors.

4. **Modeling the system actor and its links:** The objective of this task is to define the intentional elements of the system actor, the relationships between its intentional elements, and also the dependency links with the other actors.

In the **drawing sheet** you must:

- a. Identify and draw the intentional elements of the system actor. It must take as a reference the intentional elements of the other actors (main and external) to define the intentional elements (goal, soft-goals, and tasks) within the boundary of the system actor. Thus, the system actor can satisfy the intentions of the main actor taking into account the intentions of the external actors.
- b. Identify and draw the relationships between the intentional elements of the system actor. Draw the links (contribution and decomposition) between the intentional elements within the boundary of the system actor.
- c. Identify and draw the dependency links of the system actor and the other actors. Draw the dependency links between the intentional elements of the system actor and the intentional elements of the other actors.

Fill in the Finish time (hh:mm) __: __

Please, visit the following web page and answer the questionnaire:

<http://bit.ly/2khdsIO>

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Drawing Sheet

LEGEND

