

Project description Cofano

(Group 14)

The project which is chosen by group 14 is the task proposed by Cofano. In this report all information regarding the Cofano company, the existing problem, the project and the solution for the problem is discussed.

Cofano is a company which provides solutions for ports and shipping companies. These companies use the Cofano applications to keep track of ports or terminals, ships, shipments information and even their contracts with other companies in the logistic domain.

All the instances of the Cofano application have some information which is the same in all other databases such as ports and ships. When a new ship has a shipment, it has to be added in all databases individually, which is highly inefficient.

Therefore, a new web application has to be developed for creating and maintaining a central database for duplicate information which is found in all the instances of Cofano applications.

The application which is going to be designed by group 14 will have a database which will keep track of the common information of the companies which use the Cofano application. The application will only be directly accessed by Cofano employees, who have the ability to solve conflicts, see the database and add information straight to the database.

Furthermore, a RESTful API has to be designed and documented. This will be the main access for Cofano to integrate it with their own applications. For example, when a shipping company wants to add a new vessel, it has to do it through the general Cofano applications, which in turn will call the RESTful API to store this vessel information into the central database. The described application will use the publish-subscribe pattern to push this new vessel information to all the other deployed applications of Cofano.

Several problems can arise when new data is added to the database, such as badly formatted attributes. Another major problem is when a new tuple refers to the same real life object as another tuple of the database, which is recognised as a conflict by the system. Those conflicts have to be solved by Cofano employees who determine the right data. Solving conflicts will also be done through the web application.

In conclusion, the application will maintain the central database for the main applications of Cofano. It will receive new data from the Cofano application and save it in the central database. When it receives a request from the user about an update, the system will consult the central database and show the result associated to the request information by the user.