Mobile & Distributed Applications
Project for DSC Students

Car Sharing applications for scouts (group up to 3 students)

Scouting associations organize outdoor excursions for their members on a regular basis. To reduce their carbon footprint, the associations want to foster the use of car-sharing among their members. For this purpose, you are in charge of developing their **responsive** Web application.

The specifications are the following. The members of the association are families, composed of parents and children. Each child belong a group (beavers, cubs, scouts, explorer scouts, scout network). Groups participate to excurisions and several groups may take part to the same excursion. The excursion can span over several days, this duration is the same for all groups.

The car-sharing works as follows : a parent proposes to share its car for a given excursion. The parent indicates how many places are available in the car and which children are already in the car (usually his at least) and where he starts from.

When another parent looks for a car sharing, he goes on the page for the excursion where all the proposals are listed. He selects the one he is interested in and adds one or many of his children to this car-sharing.

Other requirements

- When a parent cancels his car-sharing proposal, all allocated children become unallocated and may allocated to another car-sharing proposal.
- When a parent wants to select another car-sharing for his children, he must first remove his child from the previous one : children may not be in two cars at the same time.
- The website administrator must be able to create new excursions and see statistics for the car-sharing : how many families have used the car-sharing, who is driving the most, etc

Technicalities

- The project must use spring-boot in the backend. Template engine, Javascript is up to you
- The website must be responsive, we advise to use bootstrap but it is not mandatory
- Use validation for the forms. We'll pay attention to the user experience of the project.

Bonus

- Compute the distances using a routing web service
- Compute the amount of CO2 saved thanks to this car-sharing service