

## "Co&Co Esprit" (Carpooling-Collocation)

**Together, life is easier and better**

The life of ESPRIT students is filled with classes and various activities. Organizing time to do everything becomes quite challenging. What makes this task even more difficult is the significant time spent by each student at the beginning of the year to find accommodation close to their school but often falling short of satisfying them socially and financially, or a daily means of transportation if they live far away. In addition to this, the surge in the cost of fuel and rent seriously hampers the financial situation of students' families.

We propose, therefore, to establish an exclusive carpooling and room-sharing application for ESPRIT students interested in these two themes, allowing them to share the expenses of the journey, whether for the driver or passengers, and to find the right roommate based on desired criteria, either on a personal level or by choosing the most suitable contribution for rent.



The modules that you can develop in your application are as follows:

Module	Description
Application Management	<ul style="list-style-type: none"> <li>✓ Access Rights Management</li> <li>✓ Settings Management</li> </ul>

	Application settings should be stored as information in the database (e.g., in a parameters table) rather than manually entered in your code.
User	<ul style="list-style-type: none"> <li>✓ Registration.</li> <li>✓ Authentication.</li> <li>✓ Profile and Preferences Management.</li> </ul>
Carpooling	<ul style="list-style-type: none"> <li>✓ Student Schedule Management.</li> <li>✓ Available Cars Management.</li> <li>✓ Carpooling Announcements Management.</li> <li>✓ Matching Motorized Student with Carpooling Student.</li> <li>✓ Manual Carpooling Requests Management.</li> <li>✓ Contributions Management.</li> <li>✓ Rating System.</li> <li>✓ Statistics.</li> </ul>
Collocation	<ul style="list-style-type: none"> <li>✓ Collocation Announcements Management.</li> <li>✓ Collocation Requests Management.</li> <li>✓ Matching Students Offering and Seeking Collocation.</li> <li>✓ Statistics.</li> <li>✓ Automatic Data Archiving.</li> </ul>

### Excellence criteria

- ✓ Machine Learning Matching: Implementing machine learning algorithms for improved matching.

- ✓ Geolocation on Map: Incorporating geolocation on a map and suggesting the nearest or most suitable carpooling options.
- ✓ Refined Search: Implementing a refined search based on user interactions and current location.
- ✓ Advanced Statistics: Providing advanced statistics for decision-making metrics.

**Important Notes:**

- ✓ Creativity in Development: Teams are encouraged to go beyond the detailed functionalities in the requirements. Each team should be creative and original in its development approach to create a rich and functional application.
- ✓ Task Allocation: Each team should logically and fairly distribute tasks among different members for module development.
- ✓ Ergonomics and Security: Emphasize the importance of ergonomic design and security. Implement Spring Security and utilize advanced front-end components.
- ✓ Advanced Features: All modules can include advanced features, statistics facilitating decision-making, etc.

Good Luck 😊