

THE TASK

Backend

- I. The Task
- II. Solution Format
- III. Evaluation Criteria
- IV. Contacts

I. The Task

Prepare a web application:

Barcelona is a famous part of Europe with a lot of tourist attractions, hotels, restaurants. You can visit many beautiful locations. But of course, moving from point A to point B takes time. When your time is limited, you may want to optimize your tour and find the shortest path between two points on the map.

Prepare a web application, where users will be able to add, delete and edit connections on the map, each connection will be described by:

1. name of the first point
2. name of the second point
3. number of minutes/hours needed to travel between these points.
4. ask to find a shortest path between two points on the map, for example, by selecting them from dropdown menus; as the result, total number of minutes in the shortest path between them should be displayed.

As you may notice, one point may be connected to many other points on the map. As a data storage you may use any SQL database or text files, only databases supporting graph structures are forbidden.

Limits for usage specific programs or technologies:

1. Web frameworks are allowed, pick your favorite one. You can't use any external library or software for graph processing, you have to implement it on your own
2. You can use any web-oriented programming language you want to solve this task

Bonus points:

Extra bonus points will be granted for displaying list of all the points in shortest path.

II. Solution Format

The solution should be sent in ONE archive with a title and format **ITChallenges.zip**.

Organizers and judges reserve the right to disqualify the solution which:

1. Contains any indication of name, email, company, address or other personal information of the participant.
2. Performed in another format than required.
3. Performed with the help of third parties.

III. Evaluation Criteria

1. quality of the code
2. object oriented programming usage
3. error handling logic

IV. Contacts

1. Send your solution from your profile on site no later than **10th of October, 23:59 (CET)** .
2. Any questions related to the task please send to contact@itchallenges.me . We will reply asap

V. General Partners



Good luck and may the Force be with you!