

# Online Shared Shuttle WebSite

## How It Works

That is a simplified version of a website for managing online booking of a shared shuttle for people transportation. For simplicity, there is a single shuttle with a fixed capacity (but the capacity is configurable in the code by means of a define or variable "busCapacity variable in functions.php).

The itinerary of the shuttle is determined by the alphabetic order of the addresses to be visited, i.e., the shuttle will first visit the first address in alphabetic order, then the second one, and so on until the last one.

1. On the home page of the site, anyone can view, without any registration, the full list of addresses to be visited by the shuttle, in alphabetic order (which is also the itinerary to be followed by the shuttle), and, for each segment of the itinerary, the number of booked passengers. If there are no passengers for a segment, a message is shown.

2. Each user can sign up freely on the site by providing a name, which must be a valid email address, and a password, which must contain at least a lowercase alphabetic character, and at least another character which must be either an uppercase alphabetic character or a digit. In case of invalid username or password, the user is notified by the client, before sending the data to the server, and signing up is forbidden by the client.

3. Each user can view, in his or her personal page, accessible only after authentication, the full itinerary of the shuttle (from the first address to the second one, then to the third one and so on until the last address). Moreover, the user can also see, for each segment of the itinerary, the number of passengers who will be on the shuttle in that segment, along with the usernames of the users who have booked them and for how many passengers each user has booked.

4. Each user can make a single booking for a number of people who will travel together (from a minimum of 1 to a maximum which is the capacity of the shuttle), from a certain departure address to a certain destination address. Each of these addresses can be chosen either by clicking on one of the addresses already present in the system or by entering the string of the address, if it is new.

The booking operation and related addition of new addresses occur within a **single** interaction with the server, i.e. the creation of any new addresses occur in the server together with the booking. In the response, the server indicate if the booking operation has been successful or not. In case of success, the new addresses is created and the application show the full itinerary of the shuttle as already described for the personal page but highlighting in red colour the

departure address and the destination address of the booking performed by the authenticated user. If the operation is not successful, the application show a message that notifies the user about the failure, and the new addresses is not be created. An authenticated user can delete his or her own booking by means of a dedicated button. No partial modification or delete is possible.

5. In the application deployed there are already 4 users with usernames *u1@p.it*, *u2@p.it*, *u3@p.it*, *4@p.it*, and passwords P1, P2, P3 and P4 respectively.

6. Authentication through username and password remains valid if no more than two minutes have elapsed since the last page load. If a user tries to perform an operation that requires authentication after an idle time of more than 2 minutes, the operation has no effect and the user is forced to re-authenticate with username and password. The use of HTTPS is enforced for sign up and authentication and in any part of the site that shows private information of an authenticated or signed up user.

7. The general layout of the web pages contain: a header in the upper part, a navigation bar on the left side with links or buttons to carry out the possible operations and a central part which is used for the main operation.

8. Cookies and Javascript needs to be enabled, otherwise the website may not work properly (in that case, for what concerns cookies, the user is alerted and the website navigation is forbidden, for what concerns Javascript the user is informed).