

Assignment 1	Project Summary
Course	Fullstack Application Development with Node.js + Express.js + React.js - 2020

Project author		
No	Pseudonym	Face-to-face/ online
1	bela	face-to-face

Project name	Social Platform for Volunteer Events
--------------	--------------------------------------

### 1. Short project description (Business needs and system features)

Thanks to the Internet we now can connect people and volunteer causes and events to make the world a better place. The **Social Platform for Volunteer Events** provides ability for organizations to create causes(events) and for users to take part in any cause they wish. Users can register to gain access to a cause and administrators can manage the content, organizations and users on the site. The system will be developed as a *Single Page Application (SPA)* using **React.js** as front-end, and **Node.js + express** as backend technologies. Each view will have a distinct URL, and the routing between pages will be done client side using **React Router**. The backend will be implemented as a **REST/JSON API** using JSON data serialization. The main user roles (actors in UML) are:

- *Unregistered user* – can view the available events and the information pages (Home, About) but not take part or see details.
- *Registered user(User)* – can send a request to join a event, can write on the event dashboard, can fill a survey after attending a volunteer event.
- *Organization* - can create a volunteer event and manage it.
- *Administrator* – can manage (edit and delete) events and (create and delete) users, organizations.

### 2. Main Use Cases / Scenarios

Use case name	Brief Descriptions	Actors Involved
<b>2.1. Browse information and events</b>	The <i>User</i> can browse the information views (Home, About) in <i>SPVE</i> and read about the available events filtered by certain criteria.	<i>All users</i>

<b>2.2. Register</b>	<p><i>Unregistered User</i> can register in the system. They can register as users or organizations. <i>Users</i> provide a valid e-mail address, first and last name, city and choose password. <i>Organizations</i> provide name, address, email, phone number, summary of their work and choose a password.</p> <p><i>Administrator</i> can register new by entering <i>User Data</i> and choosing a Role (<i>User or Organization</i>).</p>	<i>Unregistered User, Administrator</i>
<b>2.3. Change User Data</b>	<p><i>Registered User</i> can view and edit his/her personal <i>User Data</i> and <i>Events</i> they took/take part in as well as enter <i>Event Codes</i> for events they participated in. They can also delete an <i>Event</i> from their future <i>Events</i>.</p> <p><i>Administrator</i> can view and edit <i>User Data</i> of all <i>Users</i>.</p>	<i>Registered User, Administrator</i>
<b>2.4. Sign in for an Event</b>	<p>If the <i>Organization</i> approves everyone, then the <i>User</i> has to only click the Participate option.</p> <p>If the <i>Organization</i> needs to approve participants based on their previous event participations or age for example, the <i>User</i> sends a request and is approved by the <i>Organization</i>.</p>	<i>User, Organization</i>
<b>2.5. Change Organization Data</b>	<p><i>Organization</i> can view and edit its <i>Organization Data</i> and <i>Events</i> they created as well as create <i>Event Codes</i> for events. They can also delete an <i>Event</i> from their event list.</p> <p><i>Administrator</i> can view and edit <i>Organization Data</i> of all <i>Organizations</i>.</p>	<i>Organization, Administrator</i>
<b>2.6. Add Event</b>	<i>Organization</i> can add <i>Events</i> (with description, time, place, needed materials, etc. – metadata for the Event), create <i>Event Code</i> for participants at the <i>Event</i> (if needed). Events can be opened for everyone or they can require approval from the <i>Organization</i> .	<i>Organization</i>
<b>2.7. Approve User (optional)</b>	If an approval for participation is required, the <i>Organization</i> can do that.	<i>Organization</i>
<b>2.8. Manage Events</b>	<p><i>Organization</i> can browse its <i>Events</i>, add new <i>Events</i> using <i>Add Event UC</i>, approve participants, delete participants and delete an <i>Event</i>, as well as view <i>Users' Surveys</i> for a particular <i>Events</i> of its own.</p> <p><i>Administrator</i> can browse <i>Events</i> of all <i>Organizations</i>, edit and delete them.</p>	<i>Administrator, Organization</i>

<b>2.9. Manage Users</b>	<p><i>Administrator</i> can browse and filter users based on different criteria: first and last name, email, city.</p> <p><i>Administrator</i> can choose a <i>User</i> to manage, and can manage the chosen <i>User</i> - edit (using Change User Data UC) or delete.</p> <p><i>Administrator</i> can create a new user using <i>Register UC</i>.</p>	<i>Administrator</i>
<b>2.10. Manage Organizations</b>	<p><i>Administrator</i> can browse and filter organizations based on different criteria: name, email, city.</p> <p><i>Administrator</i> can choose an <i>Organization</i> to manage, and can manage the chosen <i>Organization</i> - edit (using Change Organization Data UC) or delete.</p> <p><i>Administrator</i> can create a new organization using <i>Register UC</i>.</p>	<i>Administrator</i>
<b>2.11. Register at Event (optional)</b>	If the registration needed and is not with <i>Event Code</i> , participants can fill their info (name and email) and this way the Organization can track who actually participated, so they can fill a survey using <i>Fill a Survey UC</i> , receive certificate or reward, if the Organization decides.	<i>Registered User</i>
<b>2.12. View Event Details</b>	Registered Users can view event details and send a request for participation if needed.	<i>Registered User</i>
<b>2.13. Write on Event Dashboard</b>	Approved for the Event <i>Registered Users</i> and the <i>Organization</i> that created the event can ask and answer questions on the <i>Event Dashboard</i> .	<i>Registered Users, Organization</i>
<b>2.14. Fill a Survey (optional)</b>	Available only for <i>Events</i> with <i>Event Code</i> of <i>Register at Event UC</i> registration. If the <i>Registered User</i> attended an <i>Event</i> they can fill a survey to give feedback and verify this Organizations Events (the participant lets people know if he had good or bad experiences, suggestions for the Organization, etc.).	<i>Registered Users</i>

3. Main Views (SPA Frontend)		
View name	Brief Descriptions	URI
<b>3.1. Home</b>	Presents the introductory information for the purpose of the system as well as detailed instructions how to start using it. Prominently offers ability to register.	/

<b>3.2. Events</b>	Presents events to Registered User with option for more details or participation request. Offers abilities to browse, choose, create, read, update, delete (CRUD) Events, as defined by <i>UCs</i> (for <i>Administrators</i> , <i>Organizations</i> and <i>Users</i> accordingly).	<i>/events</i>
<b>3.3. Specific Event?</b>	<p>Presents specific event's details. If the <i>User</i> is approved by the creator, in this view he can see the event dashboard and post there. After the event there will be a survey here, as define by <i>UCs</i>.</p> <p>The <i>Organization</i> can see here the dashboard and the survey answers if there are any about this event.</p>	<i>/event-details</i>
<b>3.4. Register at Event (optional)</b>	Table to register at an event. This view logs out the Organization so that Users do not change something. When a participant submits his/her email and name it is added to this event's participant list using a session parameter.	<i>/register-at-event</i>
<b>3.5. User Registration</b>	Presents a view allowing the <i>Unregistered Users</i> to register in <i>SPVE</i> as an <i>ordinary User</i> or as an <i>Organization</i> .	<i>/register</i>
<b>3.6. Login</b>	Presents a view allowing the users to login as User or as an Organization.	<i>/login</i>
<b>3.7. User Data</b>	Presents ability to view and edit personal <i>User Data</i> , events he/she went to, as well as deregister from <i>SPVE</i> .	<i>/personal</i>
<b>3.8. Users</b>	Presents ability to manage (CRUD) Users and their User Data (available for <i>Administrators</i> only, as described in <i>UCs</i> ).	<i>/users</i>
<b>3.9. Organizations</b>	Presents ability to manage (CRUD) Organizations and their Organization Data (available for <i>Administrators</i> only, as described in <i>UCs</i> ).	<i>/organizations</i>
<b>3.10. About</b>	Presents information about the <i>SPVE</i> project and his owner.	<i>/about</i>

#### 4. API Resources (Node.js Backend)

View name	Brief Descriptions	URI
<b>4.1. Users</b>	GET <i>User Data</i> for all users, and POST new <i>User Data</i> (Id is auto-filled by <i>SPVE</i> and	<i>/api/users</i>

	modified entity is returned as result from POST request). Available only for <i>Administrators</i> .	
<b>4.2. User</b>	GET, PUT, DELETE <i>User Data</i> for <i>User</i> with specified <i>userId</i> , according to restrictions described in UCs.	<i>/api/users/{userId}</i>
<b>4.3. Organization</b>	GET, PUT, DELETE <i>Organization Data</i> for <i>Organization</i> with specified <i>organizationId</i> , according to restrictions described in UCs.	<i>/api/organizations/{organizationId}</i>
<b>4.4. Login</b>	POST <i>User Credentials</i> (e-mail address and password) and receive a valid <i>Security Token</i> to use in subsequent API requests.	<i>/api/login</i>
<b>4.5. Logout</b>	POST a logout request for ending the active session with <i>SPVE</i> , and invalidating the issued <i>Security Token</i> .	<i>/api/logout</i>
<b>4.6. Events</b>	GET <i>Event</i> , and POST new <i>Event</i> (Id is auto-filled by <i>SPVE</i> and modified entity is returned as result from POST request), only form <i>Administrator</i> or <i>Organization</i> , according to identity security restrictions.	<i>/api/events</i>
<b>4.7. Events</b>	GET, PUT, DELETE <i>Event</i> in an <i>Organization's</i> list of events with specified <i>organizationId</i> .	
<b>4.8. Events</b>	PUT a new <i>Event</i> to a <i>User's</i> events or DELETE an <i>Event</i> from his/hers events.	<i>/api/events/{eventId}</i>
<b>4.9. Approved participants</b>	GET the list of approved participants for an <i>Event</i> (with <i>eventId</i> ).	<i>/api/events/{eventId}/approved</i>
<b>4.10. Attended</b>	GET the list of attended participants.	<i>/api/events/{eventId}/attended</i>
<b>4.11. Survey results</b>	GET survey results of an <i>Organization's</i> specific <i>Event</i> .	<i>/api/events/{eventId}/survey-results</i>
<b>4.12. Survey</b>	POST a filled survey by user who attended.	<i>/api/events/{eventId}/{userId}</i>
<b>4.13. More...</b>		

NOTES AND QUESTIONS: This is a preliminary idea and not all fields are completed. If the idea is good but not complicated enough there could be added a donation option for a Registered User to donate to an Organization. Some functionalities can be removed if they are unnecessary. I do not know if it is a better idea for Organizations to register on their own or for the Administrator to register them.