# TECHNICAL ARCHITECTURE OVERVIEW

# Project characteristics

* Technology : MEAN stack CMS
* Version: 1.0.0
* Hosting requirements: <https://eagle-manager-bobbychakandrakov.c9users.io>
* Browser Compatibility: IE8+, Chrome 23+, Firefox 17+, Safari 5+

# Project presentation

Eagle Manager is a MEAN stack based CMS that represents a project organization which facilitates the communication between developers and project managers. The system contains possibilities for creating, reviewing, updating and deleting projects depending on user access level. Every single project comes out with individual chat panel which includes all participants in the conversation. All conversations in which the logged in user takes place are represented on one single view and that helps him to orientate during the work process. Real time and also email notifications are added in order to mark the important messages which a separate group of users receives.

# Structure

Description of the structure disregarding modules and technique.

Eagle Manager is a standalone web application that is installed under <https://eagle-manager-bobbychakandrakov.c9users.io>

This is the main endpoint to access the root of the web application.

The site has a top navigation. There are 4 main navigation parts with active tab marking on the site.

Each Project in the site is threated as a Conversation. The Conversation management can be found in the Dashboard menu with listed all chat panels and the option to review/edit/delete projects from there. Creating projects can be accessed in the Create Project menu in the navigation bar.

Each project is a complex item which should include the following content:

- Project Title – A short text that contains the name of the project.

- Description – Wider information about the task which can be viewed from view project button in the chat panel heading.

- Admins – This section should contain those users who will have the rights to edit the particular project. Users are divided in three groups: Front-enders, Back-enders and Full stackers.

- Developers –This is the section where are listed all developers that only have the right to view projects and chatting with other members without editing and deleting any of the projects. Again users are divided in the same groups as mentioned above.

- Chat history – every chat panel has his own history with all the messages sent from the creation of the conversation until real time and it can be read in the panel sliding up and down.

- Key words bindings – These buttons in the chat panel footer add different key words to the messages in order to alert particular group of users for some important tasks by the real time and email notifications.

# Modules

Quick description of the main project module.

* projectManager – This is the main angular module which includes all other little modules and initializes a default route for home screen view of the application. The home screen of the application is a login / register form separated one from another with tabs.
* projectManager.authentication – this module includes the service and the controller that are designed to operate with the login and register logic.
* projectManager.dashboard – this is a module that includes services and a controller for the projects and shows all the projects where a logged user takes place in the view as well as a filter for way that projects are represented in the dashboard view
* projectManager.editProfile – this is a module that allows the logged in user to change his/her profile information like username, email, password and position.
* projectManager.createProject – this module allows every user to create a conversation for a particular project; every project needs title, description and participants (admins and developers) to be created
* projectManager.editProject – a module that allows admins to update projects by title, description and participants

# Features

The main features of the project involve creating projects and participating in conversations. All the described above modules are integral part to the design of the site. The best feature is the chat participating and real time communication between developers and project managers. It involves using various AngularJS modules for both creation and the display of the given project conversation. The project also gives opportunity for email notification while particular users are offline.

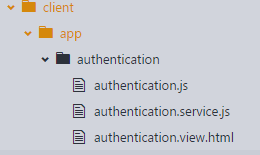
# Views

As the project is implemented with a ng-bp angular boilerplate the internal logic is handled with the given modules and their settings. The templates that are being used are always in the particular module folder of the application:

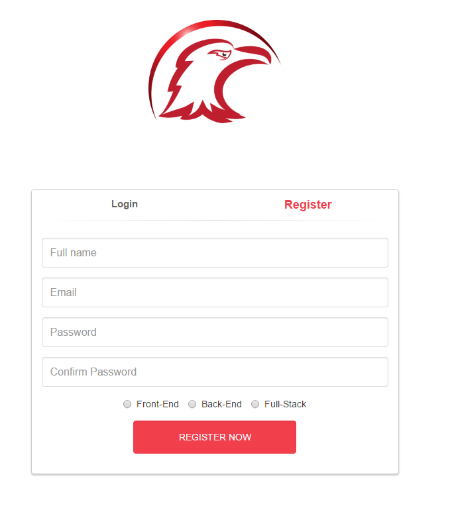
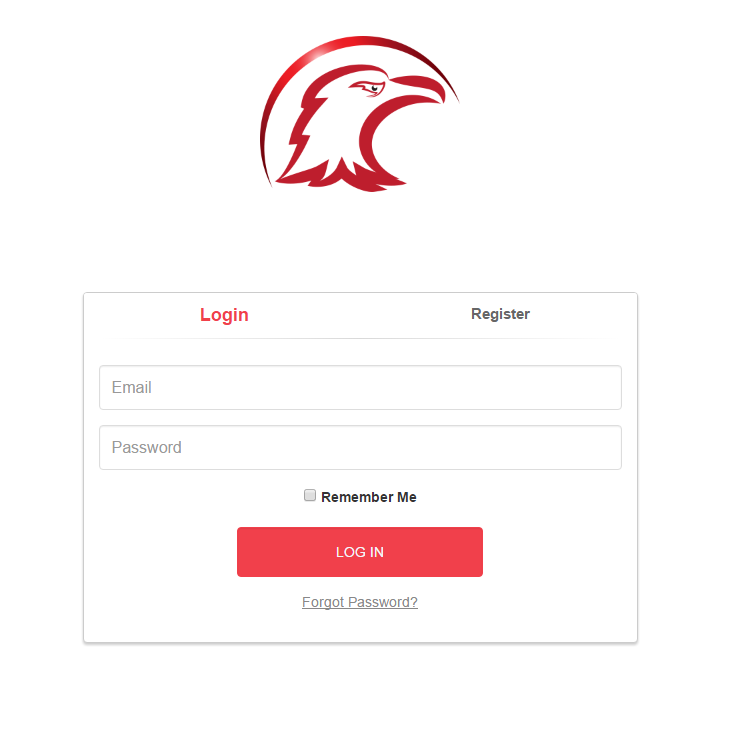
/client /app/<module-name> /

Explanation of the folders and their content will be done bellow:

[/client/app/authentication/authentication.view.html]

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This folder, except of javascript controller and service for this module, contains the authentication view which is the default home screen of the application and it includes both login and register client side view separated by tabs as presented below:

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The register method includes the following fields:

* username: the name which will be shown as the user takes place in conversations
* email: existing email which is needed for the login method and which will receive email notifications
* password: standard password with length requirement of minimum 6 symbols
* confirm password: checks if the passwords match with the first one
* position: a group of radio buttons that defines what is the role of the user: Frontend , Backend or Full stack

The login method includes the following fields :

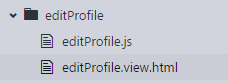
* email
* password

The authentication view is set to default screen and it can be accessed with the default application URL address.

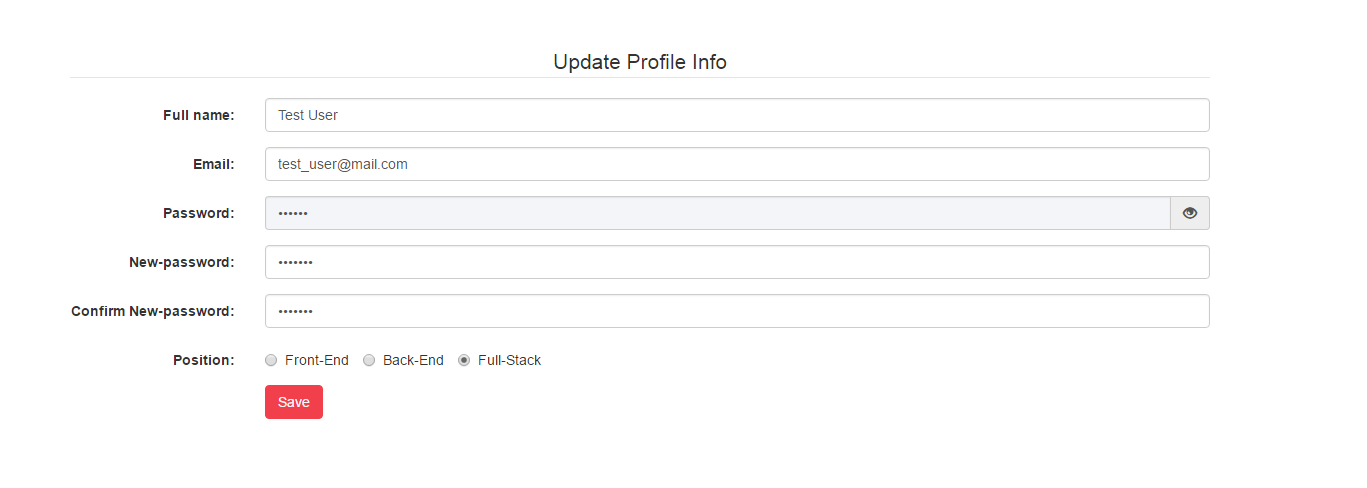
**Important: Data validation is included in real time while the user fills the forms and the system informs if there is inappropriate values in the respective fields.**

**Important: “Remember me” checkbox is set to save the user data in local storage which helps the user to remain logged even if the tab of the browser has been closed.**

[/client/app/editProfile/editProfile.view.html]

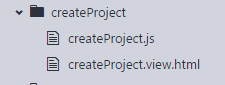
The editProfile folder contains the controller for the given module and template for updating profile information.

The logic for this module is in the same folder as the view.

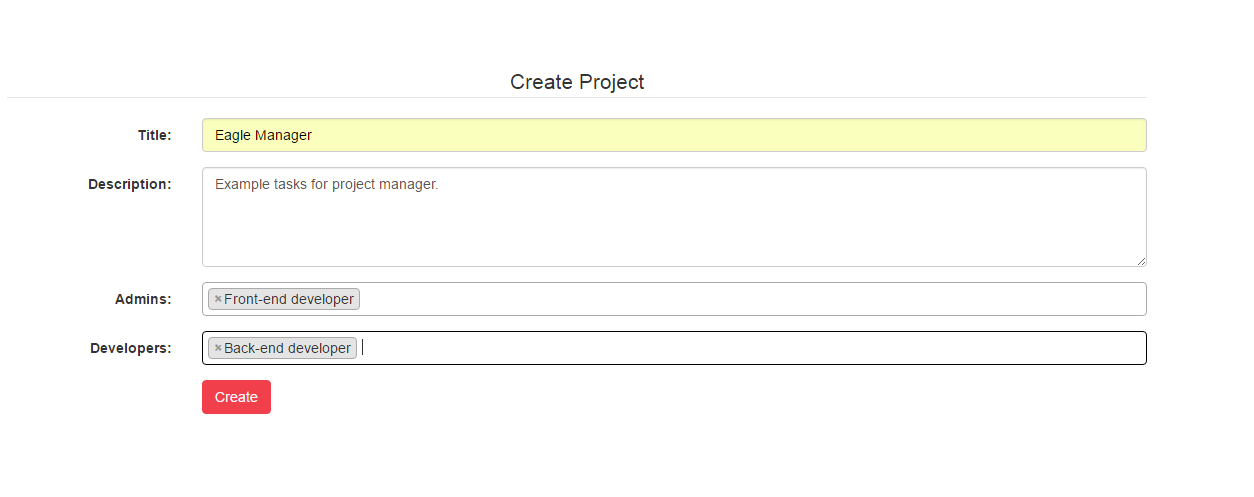


This is how the screen for updating user data looks like as presented above. The first two fields respectively for full name and email are made to show the corresponding data for the logged user. The password field is equipped with an “eye” button which respectively shows or hide the typed symbols. Two fields for updating user’s password are provided and the form checks if the value in both of them is the same. Users also have the opportunity to change their positions in the system.

[/client/app/createProject /createProject.view.html]



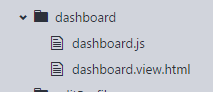
This folder contains 2 files which are the controller for the module and the template for creating project view with the form and



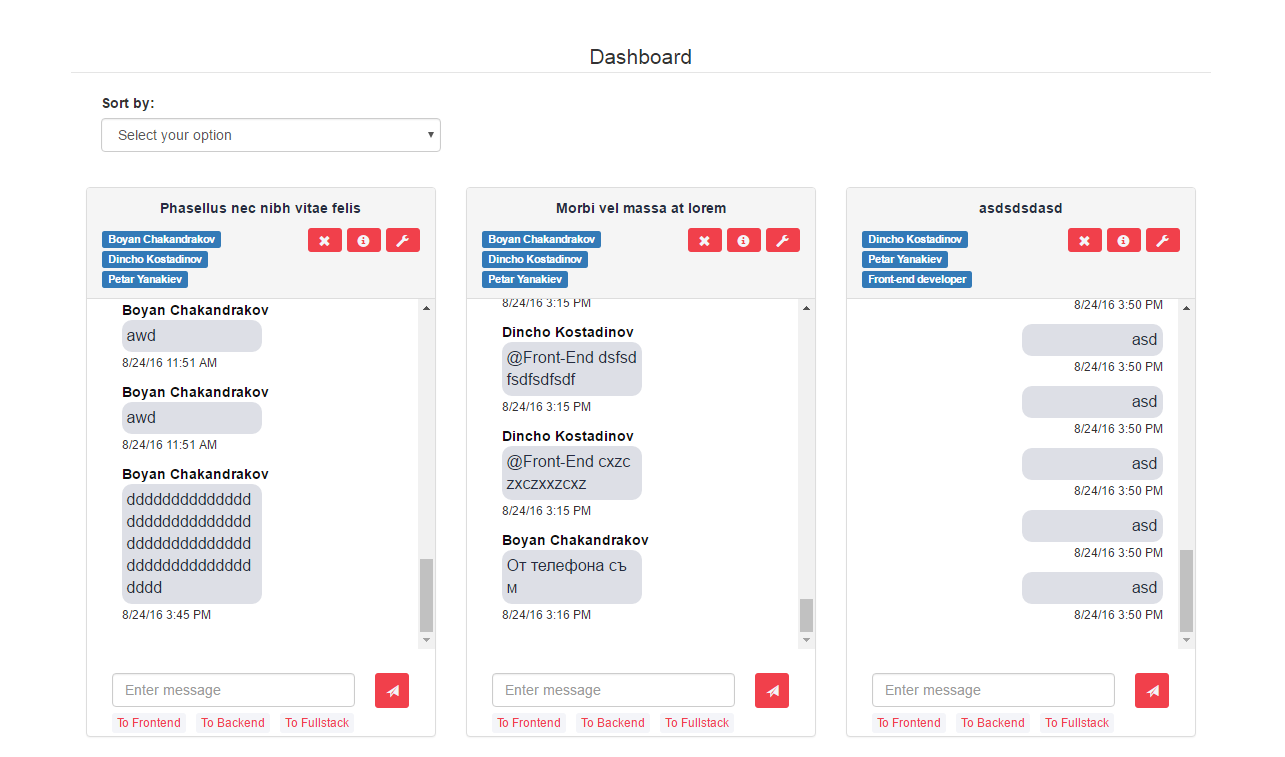
This view contains the form for creating new project and it represents four fields as given above:

* Title: The name of the project
* Description: Wider information about the given project
* Admins: Dropdown with listed all users to be chosen for admins respectively participants which should have the permission to edit projects
* Developers: All ordinary users that will take place in the working process of the project

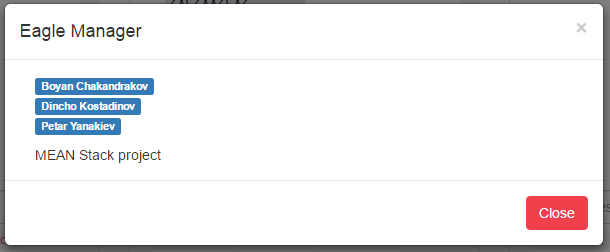
[/client/app/dashboard/dashboard.view.html]



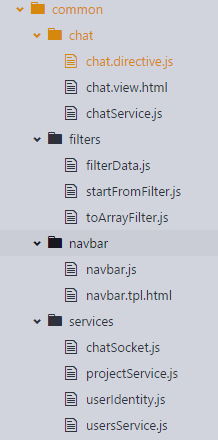
This folder contains controller for the dashboard module and its view with all conversations for every single project posted in dashboard.



This view represents all chat panels with conversation history as showed above. Project title and listed participants are showed in the panel heading as well as the buttons for deleting, editing and reviewing the project. The message textbox, send button and key words sender buttons are positioned in the footer of the panel. Modal dialogs are used for deleting project confirmation and project reviewing. All projects in dashboard can be sorted by title or creation date with the “Sort by” dropdown.



[/client/app/common]

This folder contains all components that are used more than once in the application and gives the possibility to be reusable in future projects. Every file in this folder can be accessed by other remote modules. The chat folder contains the angular directive for the chat logic, its view and the service for it. In filters folder there are placed all filters that are used in this project. Navbar folder contains the controller and the view for the navigation bar which is reusable for every single view in the application. Services folder is designed to keep the logic for all services that are supposed to be used by other remote modules.

[css]

This folder essentially contains all the CSS styles for the project

[images]

This folder contains all the statically available images (not user-uploaded) that are required by the design.

# Rights and users

The application has 3 levels of users for every project:

* Owner (project manager) – allowed to delete, edit and review projects
* Admin – allowed to edit and review projects
* Developer – allowed only to review projects