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| Assignment 1 | | Project Summary | |
| Course | | **Web Application & Service Development with Spring Framework v5** **- 2019** | |
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| Project author | | | |
| № | Pseudonym | | Face-to-face/ online |
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| Project name | News Aggregator |

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| 1. Short project description (Business needs and system features) |
| We are surrounded by a lot of information. Without a proper way to filter it we get overwhelmed and unable to get anything useful out of it. This News Aggregator allows you to select the news sources you trust and you will have a unified place to visit to get everything you need regarding news. The system will be developed using Spring 5 Framework. It will implement a web-based front-end single page application written in Angular, which will communicate with the back-end Spring Application using JSON. There will also be some real-time streaming from the server to the webclient using WebFlux in order to receive the news articles(and any updates on them) dynamically without the need to reload the web application.  The main user roles will be:   * Anonymous User - can only view information pages and register into the application * Standard User - can select the news sources to receive articles from * Premium User - has unlimited news sources to use, can create and configure custom news sources * Administrator - can configure the basic news sources and decide which can be used by the users (has admin panel basically) |

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| 1. Main Use Cases / Scenarios | | |
| **Use case name** | **Brief Descriptions** | **Actors Involved** |
| * 1. **Browse information** | The user can browse the home and about page to get more information about the web application.. | All users |
| * 1. **Register** | Anonymous users can register by providing a valid email, name and a password to become a Regular or Premium user (can select subscription plan). OAuth support to make the registration process easier. If registering without OAuth provider, must confirm email. | *Anonymous User* |
| * 1. **Feed** | Here the user can view all of the articles gotten from his selected news sources. He has filters and some search bar in order to filter specific results he might be looking for. | Standard User, Premium User |
| * 1. **News Sources** | Standard users can choose which news sources to enable, so that they will see them in their feed. Premium users can add new sources and configure the crawler to fetch data from these sources. | Standard User, Premium User |
| * 1. **Search for keywords in feed** | The users can use a search engine to look for keywords in the articles in their feed. Also can receive statistics on how often a certain keyword is seen by article, by news sources and more detailed filters. | Standard User, Premium User |
| * 1. **Contact support** | Premium users can write messages to support, in order to get help with using the web application, how to set up a custom news source and etc. | Premium User |
| * 1. **Read customer support tickets** | The administrator can read the support tickets opened by the users. | Administrator |
| * 1. **Admin panel** | The administrator can edit the configured news sources for each user in order to help them set up their configuration properly. | Administrator |

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| 1. Main Views (Frontend) | | |
| **View name** | **Brief Descriptions** | **URI** |
| * 1. **Home** | Presents the introductory information for the purpose of the system as well as detailed instructions on how to start using it. Prominently offers ability to register. | / |
| * 1. **News Sources** | Presents the user with a menu, which allows them to choose, which news sources to enable. If the user is a premium one, he/she can also add a custom news source with configuration for the crawler. | */news-sources* |
| * 1. **Feed** | Presents the user with a feed of all the articles from all the news sources he/she chose. Also allows them to filter, search and sort the information to their choosing. | */feed* |
| * 1. **User Registration** | Presents a view allowing the *Anonymous Users* to register and become a Standard or a Premium User by select their plan. | */register* |
| * 1. **Login** | Presents a view allowing the users to login. | */login* |
| * 1. **Contact us** | Presents a form for Premium Users to write tickets to the system’s administrators in order to receive help in using the system. | */support* |
| * 1. **Admin panel** | Presents the administrator with information about all users and allows them to edit their configured news sources. | */admin* |
| * 1. **Users** | Presents ability to manage (CRUD) Users and their User Data (available for *Administrators* only, as described in UCs). | */users* |
| * 1. **About** | Presents information about the *OKTS* project and his owner. | */about* |

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| 1. API Resources (Node.js Backend) | | |
| **View name** | **Brief Descriptions** | **URI** |
| * 1. **Users** | GET *User Data* for all users(available only for Administrators), and POST new *User Data* (Id is auto-filled by the systemand modified entity is returned as result from POST request). | */api/users* |
| * 1. **User** | GET, PUT, DELETE *User Data* for *User* with specified *userId*, according to restrictions described in UCs. | */api/users/{userId}* |
| * 1. **Login** | POST *User Credentials* (e-mail address and password) and receive a valid *Security Token* to use in subsequent API requests. | */api/login* |
| * 1. **Logout** | POST a logout request for ending the active session with *OKTS,* and invalidating the issued *Security Token*. | */api/logout* |
| * 1. **News Sources** | GET and POST(with news-source data, Id is automatically filled by the system). Available only for Premium Users and Administrators. | */api/news-sources* |
| **4.6. News Sources** | PUT, DELETE news source. Allows Premium User and Administrator to update or delete a news source. | */api/news-sources{newsSourceId}* |
| **4.7. Feed** | GET request with a user token in the header. Returns a list of the articles gotten from the news sources of the user identified by the token. | */api/articles* |
| **4.8. Contact** | POST allows a Premium User to submit a support ticket regarding an issue he might be having with the system. | */api/support* |