# **REST API:** [Spring Boot User Management App](https://github.com/IMinchevQA/SpringBootSimpleUserManagementApp)

Current application consumes and returns data in JSON format.

Directly in package ***com*** is placed file *InitialDataLoader.java:*

* **Purpose -** to initialize Roles, Privileges and default Administrator user with credentials: **Username**: “Admin”; **Password: “**Administrator”.
* **How to use -** when the database is still empty field*alreadySetup* (row 35 in the file)must be set to value *-* **true**initially**!**

Once the database is initialized setting field *alreadySetup* to **false** is necessary to prevent Username: “Admin” duplication in the database when application is re-started.

**Authentication** - application uses JSON Web tokens (JWTs) to authenticate users. Each token has expiration time from 10 days;

**Localhost URL** - http://localhost:8080

**H2-console URL** - http://localhost:8080/h2-console/

Application’s supported features including corresponding requests necessary with additional requirements and limitations are described in Table 1 below.

**Table 1:** Application supported features.

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| --- | --- | --- | --- | --- | --- |
| Pos. | **Operation** | **Request Url** | **Method** | **Request Body** | **Requirements & Remarks** |
| 1. | **Register**  1.1.Administrator | /users/administrator/register | POST | {  "username": "Admin1",  "password": "12345",  "passwordConfirm": "12345",  "roleId": "1"  } | - username – 3 ÷ 15 symbols  - password – 5 ÷ 15 symbols  - roleId = 1  Providing of Administrator authorization token in request headers is required.  Authorization token is provided in the response headers after login with e.g. **Username**: “Admin”; **Password: “**Administrator”. |

**Table 1:** Application supported features.

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| --- | --- | --- | --- | --- | --- |
| **Pos.** | **Operation** | **Request Url** | **Method** | **Request Body** | **Requirements & Remarks** |
|  | 1.2. Employer | /users/register | POST | {  "username": "Employer",  "password": "12345",  "passwordConfirm": "12345",  "roleId": "2"  } | - username – 3 ÷ 15 symbols  - password – 5 ÷ 15 symbols  - roleId = 2  No authorization token required!  The additional Employer values necessary are provided with Employer’s update request! |
|  | 1.3.Employee | /users/administrator/register | POST | {  "username": "Employee",  "password": "12345",  "passwordConfirm": "12345",  "roleId": "3"  } | - username – 3 ÷ 15 symbols  - password – 5 ÷ 15 symbols  - roleId = 2  No authorization token required!  The additional Employer values necessary are provided with Employer’s update request! |
| 2. | Login | / users/login | POST | {  "username": " Employee ",  "password": "12345"  } | Returns JWT in response headers if successful. |
| 3. | **List Users**  3.1 Users | /users/list\_all\_users?page=0&size=4 | GET | - | **Requirements**  Providing of Administrator authorization token in request headers is required.  No access for Employers and Employees! |

**Table 1:** Application supported features.

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| --- | --- | --- | --- | --- | --- |
| **Pos.** | **Operation** | **Request Url** | **Method** | **Request Body** | **Requirements & Remarks** |
|  | 3.2 Employers | /employers/list\_employers?page=0&size=4 | GET | - | Providing of Administrator authorization token in request headers is required.  No access for Employers and Employees! |
|  | 3.3 All employees | /employees/list\_all\_employees?page=0&size=4 | GET | - | Providing of Administrator authorization token in request headers is required.  No access for Employers and Employees! |
|  | 3.3 Employees of current employer | /employers/ **{employer\_id}**/list\_employees?page=0&size=4  **Note:**  **{employer\_id}** must be replaced with id number. | GET | - | Providing of Administrator/Employer authorization token in request headers is required.  Employer can see only his own Employees!  No access for Employees! |
| 4. | **Count Employees** | /employers/**{employer\_id}**/count\_employees  **Note:**  **{employer\_id}** must be replaced with id number. | GET | - | Providing of Administrator/Employer authorization token in request headers is required.  Employer can see only the count of his own Employees!  No access for Employees! |

**Table 1:** Application supported features.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Pos.** | **Operation** | **Request Url** | **Method** | **Request Body** | **Requirements & Remarks** |
| 5. | **Update**  5.1 Employer | /employers/update\_employer/**{employer\_id}**  **Note:**  **{employer\_id}** must be replaced with id number. | PUT | {  "firstName": "Bill",  "middleInitial": "B",  "lastName": "Billson"  } | firstName – 3 ÷ 15 letters  middleInitial – 1 upper case letter  lastName – 3 ÷ 15 letters  Providing of Administrator/Employer authorization token in request headers is required.  No empty fields acceptable!  Employer can update his own data!  No access for Employees! |
|  | 5.2 Employee by himself | /employees/update\_employee/{employee\_id}  **Note:**  **{employee\_id}** must be replaced with id number. | PUT | {  "firstName": "Mike",  "middleInitial": "S",  "lastName": "Mikeson",  "phoneNumber": "1234567890",  "sex": "M",  "dateOfBirth": "1985-12-01"  } | firstName – 3 ÷ 15 letters  middleInitial – 1 upper case letter  lastName – 3 ÷ 15 letters  phoneNumber – 10 ÷ 20 numbers  sex – M or F uppercase letters  dateOfBirth – “YYYY-MM-DD”  Providing of Administrator/Employee authorization token in request headers is required.  No empty fields acceptable!  Employee can update his own data!  Described fields cannot be modified by Employer! |

**Table 1:** Application supported features.

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| --- | --- | --- | --- | --- | --- |
| **Pos.** | **Operation** | **Request Url** | **Method** | **Request Body** | **Requirements & Remarks** |
|  | 5.3 Employee by Employer | /employees/update\_employee/{employee\_id}  **Note:**  **{employee\_id}** must be replaced with id number. | PUT | {  "employeeNumber":"12345",  "departmentID":"12345" ,  "job":"Inspector",  "formalEducationYears": "2",  "yearSalary": "1000.33",  "yearBonus": "201.42",  "commission": "99.87"  } | employeeNumber – 5 ÷ 10 numbers  departmentID – 5 ÷ 10 numbers  job – 5 ÷ 30 letters  formalEducationYears – number value  yearSalary – number value  yearBonus – number value  commission – number value  Providing of Administrator/Employer authorization token in request headers is required.  No empty fields acceptable!  Employer can update only his own data Employee!  Described fields cannot be modified by Employee! |
| 6. | **Subscribe Employee to Employer** | /employers/{employer\_id}/subscribe\_employee/{employee\_id}  **Note:**  **{employer\_id}, {employee\_id}** must be replaced with corresponding ids number. | POST | - | Providing of Administrator/Employer authorization token in request headers is required.  No access for Employees!  An Employer cannot assign Employees to another Employer! |

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| --- | --- | --- | --- | --- | --- |
| **Pos.** | **Operation** | **Request Url** | **Method** | **Request Body** | **Requirements & Remarks** |
| 7. | **Release Employee from Employer** | /employers/{employer\_id}/release\_employee/{employee\_id}  **Note:**  **{employer\_id}, {employee\_id}** must be replaced with corresponding ids number. | POST | - | Providing of Administrator/Employer authorization token in request headers is required.  No access for Employees!  An Employer cannot release Employees assigned to another Employer! |
| 8. | **Change status**  8.1. Employer | /employers/{employer\_id}/change\_status  **Note:**  **{employer\_id}** must be replaced with id number. | POST | - | Providing of Administrator/Employer authorization token in request headers is required.  No access for Employees!  Employer can change only his own status. |
|  | 8.2. Employee | /employees/{employee\_id}/change\_status"  **Note:**  **{employee\_id}** must be replaced with id number. | POST | - | Providing of Administrator/Employer/Employee authorization token in request headers is required.  Employee can change only his own status.  Employer can change only status of his Employees. |

**Table 1:** Application supported features.

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| **Pos.** | **Operation** | **Request Url** | **Method** | **Request Body** | **Requirements & Remarks** |
| 9. | **Delete**  9.1. Employer | /employers/delete\_employer/{employer\_id}  **Note:**  **{employer\_id}** must be replaced with id number. | DELETE |  | Providing of Administrator authorization token in request headers is required.  Only Administrator can delete entity!  - All Employers’s tasks and related TaskProgressUpdates are **deleted**!  - All the subscribed Employees are released (Employer field set to **null**) but **not deleted** from the system! |
|  | 9.2 Employee | /employers/delete\_employee/{employee\_id}  **Note:**  **{employee\_id}** must be replaced with id number. | DELETE | - | Providing of Administrator authorization token in request headers is required.  Only Administrator can delete entity! |
| 10. | **Create Task** | /tasks/employer/{employer\_id}/create\_task  **Note:**  **{employer\_id}** must be replaced with id number. | POST | {  "title": "Some Task"  } | Providing of Administrator/Employer authorization token in request headers is required.  Employee cannot create a Task! |

**Table 1:** Application supported features.

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| --- | --- | --- | --- | --- | --- |
| **Pos.** | **Operation** | **Request Url** | **Method** | **Request Body** | **Requirements & Remarks** |
| 11. | **Update Task** | /tasks/update\_task/{task\_id}  **Note:**  **{task\_id}** must be replaced with id number. | PUT | {  "title": "Some Task Update"  } | Providing of Administrator/Employer authorization token in request headers is required.  Employer cannot update another Employer’s Tasks!  Employee cannot update a Task! |
| 12. | Assign Employee to a Task | /tasks/employer/{employer\_id}/assign\_employee/{employee\_id}/to\_task/{task\_id}  **Note:**  **{employer\_id}, {employee\_id} and {task\_id}** must be replaced with corresponding id numbers. | POST |  | Providing of Administrator/Employer authorization token in request headers is required.  Employer can only assign his own Employees to his own Tasks. |
| 13. | Release Employee from a Task | /tasks/employer/{employer\_id}/release\_employee/{employee\_id}/from\_task/{task\_id}  **Note:**  **{employer\_id}, {employee\_id} and {task\_id}** must be replaced with corresponding id numbers. | POST |  | Providing of Administrator/Employer authorization token in request headers is required.  Employer can only release his own Employees from his own Tasks. |

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| --- | --- | --- | --- | --- | --- |
| **Pos.** | **Operation** | **Request Url** | **Method** | **Request Body** | **Requirements & Remarks** |
| 14. | **Add Task Progress Update** | /tasks/employee/{employee\_id}/add\_update/{task\_id}  **Note:**  **{employee\_id}, {task\_id}** must be replaced with corresponding id numbers. | POST | {  "title": "Some Task Update"  } | Providing of Administrator/Employee authorization token in request headers is required.  Employee can only add Task progress updates to Tasks that he is assigned to.  Employer cannot add Task progress update! |

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| **Date:** | 15.11.2017 |