

EAP: Architecture Specification and Prototype

The Super Legit Collaborative News (SLCN) is a project headed by a small group of developers with the main goal of free, open, and accessible news sharing for and by users.

This will allow all users to view and browse all types of news and comments on any topic, with access to text search and tag selection.

A7: Web Resources Specification

This artifact documents the architecture of the web application to be developed, indicating the catalog of resources, the properties of each resource, and the format of JSON responses. This specification adheres to the OpenAPI standard using YAML.

This artifact presents the documentation for SLCN (Super Legit Collaborative News), including the CRUD (create, read, update, delete) operations for each resource.

1. Overview

M01: Authentication	Web resources associated with user authentication and individual profile management. Includes the following system features: login/logout, registration, password recovery, view and edit personal profile information.
M02: Users	Web resources associated with the interaction with other users. Includes the following: view and search user's profile and follow users.
M03: News	Web resources associated with news items. Includes the following system features: news list and search, creation, deletion, editing, voting and favoriting.
M04: Comments	Web resources associated with comments. Includes the following system features: comment creation, deletion, editing and voting.
M05: Tags	Web resources associated with tags. Includes the following system features: tag creation, search, deletion and following.
M06: Notifications	Web resources associated with notifications.
M07: Reports	Web resources associated with reports. Includes the following system features: report creation and processing.
M08: Search	Web resources associated with searching user, news and comments.
M09: User Administration and Static pages	Web resources associated with user, news, comments, tags and reports specifically: view, search, delete or block information and details. Web resources with static content are associated with this module: about us, contact, services and faq.

2. Permissions

PUB	Public	User without privileges
USR	User	Authenticated users
AUTH	Author	Users that are authors of the information (e.g. own profile, own news, own comments)
ADM	Administrator	System administrators

3. OpenAPI Specification

[a7_openapi.yaml](#)

```

openapi: 3.0.0

info:
  version: '1.0'
  title: 'LBAW SLCN Web API'
  description: 'Web Resources Specification (A7) for SLCN'

servers:
- url: http://lbaw2286.lbaw.fe.up.pt
  description: Production server

externalDocs:
  description: Find more info here.
  url: https://git.fe.up.pt/lbaw/lbaw2223/lbaw2286/-/wikis/home

tags:
- name: 'M01: Authentication'
- name: 'M02: Users'
- name: 'M03: News'
- name: 'M04: Comments'
- name: 'M05: Tags'
- name: 'M06: Notifications'
- name: 'M07: Reports'
- name: 'M08: Search'
- name: 'M09: User Administration and Static Pages'

paths:
  /login:
    get:
      operationId: R101
      summary: 'R101: Login Form'
      description: 'Provide login form. Access: PUB'
      tags:
        - 'M01: Authentication'
      responses:
        '200':
          description: 'Ok. Show Log-in UI10'
    post:
      operationId: R102
      summary: 'R102: Login Action'

```

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description: 'Processes the login form submission. Access: PUB'
tags:
  - 'M01: Authentication'

requestBody:
  required: true
  content:
    application/x-www-form-urlencoded:
      schema:
        type: object
        properties:
          email: # <!-- form field name
            type: string
          password: # <!-- form field name
            type: string
        required:
          - email
          - password

responses:
  '302':
    description: 'Redirect after processing the login
credentials.'
    headers:
      Location:
        schema:
          type: string
        examples:
          302Success:
            description: 'Successful authentication. Redirect main
page.'
            value: '/'
          302Error:
            description: 'Failed authentication. Redirect to login
form.'
            value: '/login'

/logout:
  post:
    operationId: R103
    summary: 'R103: Logout Action'
    description: 'Logout the current authenticated user. Access: USR,
ADM'
    tags:
      - 'M01: Authentication'
    responses:
      '302':
        description: 'Redirect after processing logout.'
        headers:
          Location:
            schema:
              type: string
            examples:
              302Success:

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        description: 'Successful logout. Redirect to main
page.'
        value: '/'
302Failure:
    description: 'Failed logout. Redirect to main page.'
    value: '/'

/register:
  get:
    operationId: R104
    summary: 'R104: Register Form'
    description: 'Provide new user registration form. Access: PUB'
    tags:
      - 'M01: Authentication'
    responses:
      '200':
        description: 'Ok. Show Sign-Up UI09'

  post:
    operationId: R105
    summary: 'R105: Register Action'
    description: 'Processes the new user registration form submission.
Access: PUB'
    tags:
      - 'M01: Authentication'

    requestBody:
      required: true
      content:
        application/x-www-form-urlencoded:
          schema:
            type: object
            properties:
              username:
                type: string
              email:
                type: string
              password:
                type: string
            required:
              - username
              - email
              - password

    responses:
      '302':
        description: 'Redirect after processing the new user
information.'
        headers:
          Location:
            schema:
              type: string
          examples:
            302Success:
              description: 'Successful authentication. Redirect to
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main page.'
    value: '/'
    302Failure:
    description: 'Failed authentication. Redirect to login
form.'
    value: '/login'
/profile/{id}:
get:
  operationId: R201
  summary: "R201: Gets a profile page of a user."
  description: "Displays profile page of a user. Access: USR"
  tags:
    - 'M02: Users'
  responses:
    '200':
      description: 'Ok. Show Profile page [UI03]'
    '302':
      description: 'Redirect.'
      headers:
        Location:
          schema:
            type: string
      examples:
        302Failure:
          description: 'Redirect to login page.'
          value: '/login'

/edit_profile/{id}:
post:
  operationId: R202
  summary: "R202: Displays User edit page."
  description: "Display edit page for a user's profile. Access: AUTH,
ADM"
  tags:
    - 'M02: Users'
  requestBody:
    required: true
    content:
      application/x-www-form-urlencoded:
        schema:
          type: object
          properties:
            id:
              type: integer
              required:
                - id
  responses:
    '302':
      description: 'Redirect.'
      headers:
        Location:
          schema:
            type: string
      examples:

```

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302Success:
  description: 'Redirect to profile edit page.'
  value: '/edit_profile/{id}'
302Failure:
  description: 'Redirect to profile page.'
  value: '/profile/{id}'

/api/edit_profile/{id}:
  post:
    operationId: R203
    summary: "R203: Edits a user's profile."
    description: "Processes and edits a user's profile. Access: AUTH,
ADM"
    tags:
      - 'M02: Users'
    requestBody:
      required: true
      content:
        application/x-www-form-urlencoded:
          schema:
            type: object
            properties:
              id:
                type: integer
              username:
                type: string
              country:
                type: string
              email:
                type: string
              password:
                type: string
            required:
              - id
              - username
              - country
              - email
              - password
    responses:
      '302':
        description: 'Redirect.'
        headers:
          Location:
            schema:
              type: string
        examples:
          302Success:
            description: 'Redirect to profile page.'
            value: '/profile/{id}'
          302Failure:
            description: 'Redirect to profile edit page.'
            value: '/edit_profile/{id}'

/change_admin/{id}:
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    post:
      operationId: R204
      summary: "R204: Changes a users admin role."
      description: "Changes a users admin role. If the user is an admin,
they lose the role and vice-versa. Access: ADM"
      tags:
        - 'M02: Users'
      requestBody:
        required: true
        content:
          application/x-www-form-urlencoded:
            schema:
              type: object
              properties:
                id:
                  type: integer
                  required:
                    - id
      responses:
        '302':
          description: 'Redirect.'
          headers:
            Location:
              schema:
                type: string
          examples:
            302Success:
              description: 'Redirect to profile page.'
              value: '/profile/{id}'
            302Failure:
              description: 'Redirect to profile page.'
              value: '/profile/{id}'

/:
  get:
    operationId: R301
    summary: 'R301: Shows home feed.'
    description: 'Obtains page with the most popular news items.
Access; PUB'
    tags:
      - 'M03: News'
    responses:
      '200':
        description: 'Ok. Show home feed [UI01]'

/news/{id}:
  get:
    operationId: R302
    summary: 'R302: Shows news item.'
    description: 'Obtains page with the selected news item. Access;
USR'
    tags:
      - 'M03: News'
    parameters:

```

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    - in: path
      name: id
      schema:
        type: integer
      required: true
  responses:
    '200':
      description: 'Ok. Show news item [UI02]'
    '302':
      description: 'User not logged in. Redirect to login form'
      headers:
        Location:
          schema:
            type: string
          examples:
            302Failure:
              description: 'User not logged in. Redirect to login
page.'
              value: '/login'

/api/news:
  post:
    operationId: R303
    summary: 'R303: News creation action.'
    description: 'Processes the new news item form submission and
creates the news item. Access; USR'
    tags:
      - 'M03: News'
    requestBody:
      required: true
      content:
        application/x-www-form-urlencoded:
          schema:
            type: object
            properties:
              title:
                type: string
              content:
                type: string
              picture:
                type: object
              id_author:
                type: integer
            required:
              - title
              - content
              - id_author

  responses:
    '302':
      description: 'Redirect after processing new news item.'
      headers:
        Location:
          schema:

```



```

        type: string
      examples:
        302Success:
          description: 'Successful news creation. Redirection to
news item.'

```

```
requestBody:
  required: true
  content:
    application/x-www-form-urlencoded:
      schema:
        type: object
        properties:
          id:
            type: integer
          title:
            type: string
          content:
            type: string
          picture:
            type: object
          id_author:
            type: integer
        required:
          - id
          - title
          - content
          - id_author
responses:
  '302':
    description: 'Redirect after editing news item.'
    headers:
      location:
        schema:
          type: string
    examples:
      302Success:
        description: 'Successful news update. Redirection to
news page.'
        value: '/news/{id}'
      302Failure:
        description: 'Failure in news update. Redirection to
news page.'
        value: '/news/{id}'
/search:
  get:
    operationId: R801
    summary: 'R801: Search for news posts or users'
    description: 'Search for news posts or users. Access: PUB'
    tags:
      - 'M09: Search'
    requestBody:
      required: true
      content:
        application/x-www-form-urlencoded:
          schema:
            type: object
            properties:
              query:
                type: string
```

```
        required:
          - query
      responses:
        '302':
          description: 'Redirect after processing the query.'
          headers:
            Location:
              schema:
                type: string
          examples:
            302Success:
              description: 'Successful search. Redirect to search
results page.[UI05]'
              value: '/search/{query}'
            302Failure:
              description: 'Failed search. Redirect to home page.'
              value: '/'
        '400':
          description: 'Bad Request'
```

A8: Vertical prototype

This artifact pertains to the vertical prototype of the project and it contains the list of implemented user stories and web resources.

1. Implemented Features

1.1. Implemented User Stories

User Story reference	Name	Priority	Description
US01	View Top News Feed	High	at I can view all the most relevant news available.
US02	View News Item	High	As a User, I want to access a single News Item so that I can read a more detailed version of it.
US03	Search	High	As a User, I want to search for a specific tag, comment, or news item so that I can find that information quicker.
US04	View News Item Comments	Medium	As a User, I want to view the comments of each news item, so that I can know detailed people's opinions about that news item.

User Story reference	Name	Priority	Description
US05	View Other Users' Profiles	Medium	As a User, I want to view the profiles of other people, so that I can check their reputation, and news and comment history.
US10	Sign-in	High	As a Visitor, I want to be able to authenticate so that I can have access to a lot of new features on the platform.
US11	Sign-up	High	As a Visitor, I want to be able to create an account in the system so that I can authenticate and have my profile.
US13	Create News Item	High	As an Authenticated User, I want to create and publish a news item, so that it becomes available to other users.
US14	Sign-out	High	As an Authenticated User, I want to sign out from my account, so that I can end the login session.
US15	Edit Profile	High	As an Authenticated User, I want to edit my profile so that I can keep my personal information updated.
US16	View Personal Profile	High	As an Authenticated User, I want to view my user profile so that I can check my post and comment history, and personal information and have an option to edit it.
US17	View User News Feed	High	As an Authenticated User, I want to view a custom news feed so that I can have access to all the news of the people and tags that I am following.
US29	Edit News Item	Medium	As a News Author, I want to edit one of my published articles, so that I can correct/update said article.
US30	Delete News Item	Medium	As a News Author, I want to remove one of my published articles, so that it disappears from the platform.
US36	Administer User Accounts	High	As an Administrator, I want to search, view, edit and create user accounts so that I can manage them accordingly.
US38	Manage User Accounts	Medium	As an Administrator, I want to manage user accounts so that the users have access to the platform only when they comply with the guidelines.
US40	Manage Content	Low	As an Administrator, I want to manage users' content so that no forbidden content is on the platform.

1.2. Implemented Web Resources

Module M01: Authenticationb>

Web Resource Reference	URL
R101: Login Form	/login
R102: Login Action	/login
R103: Logout Action	/logout
R104: Register Form	/register
R105: Register Action	/register

Module M02: Users

Web Resource Reference	URL
R201: Gets a profile page of a user	/profile/{id}
R202: Displays User edit page	/edit_profile/{id}
R203: Edits a user's profile	/api/edit_profile/{id}
R204: Changes a users admin role	/change_admin/{id}

Module M02: News

Web Resource Reference	URL
R301: Shows home feed	/news/{id}
R302: Shows news item	/
R303: News creation action	/api/news
R304: Deletes a news item	/api/news/{news_id}
R305: Edits a news item	/api/news/update/{news_id}

Module M08: Search

Web Resource Reference	URL
R801: Search for news posts or users	/search

2. Prototype

Prototype available at: <https://lbaw2286.lbaw.fe.up.pt/> Prototype source code available at: <https://git.fe.up.pt/lbaw/lbaw2223/lbaw2286/-/tree/EAP>

Admin Credentials: email: admin@example.com password: 1234

Revision history

- André Morais, up202005303@edu.fe.up.pt (editor)
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