EAP: Architecture Specification and Prototype

This project intends to build a Collaborative news website, where anyone can read, publish news and share them with friends, while avoiding the spread of fake news.

A7: High-level architecture. Privileges. Web resources specification

In this artifact will be documented the architecture of the web application to develop, indicating the catalogue of resources and properties of each resource, including:

- References to the graphical interfaces
- The format of JSON responses. In addition, this artifact will present the documentation for XEKKIT, including the following operations over data: *create*, *read*, *update* and *delete*. This specification adheres to the OpenAPI standard using YAML.

1. Overview

The overview of the web application to implement will be presented in this section. Here the modules will be identified and briefly described. The web resources will be associated with each module and will be described in the individual documentation of each module.

Modules	Description
M01: Authentication and Individual Profile	Web resources associated with user authentication and individual profile management: login, logout, registration, password recovery, view and edit personal information.
M02: Create/Edit Content	Web resources associated with creation and edition of content.
M03: See Users/Content	Web resources associated viewing news, comments and users.
M04: Search Users/Content	Web resources associated with searching news, comments and users.
M05: Notifications	Web resources associated with notifications, including viewing and deletion.
M06: Create Requests	Web resources associated with requests: partner request, ban user request, ban content request and unban appeal.
M07: Moderator Administration	Web resources associated with moderator management, specifically: acception/rejection of requests by the moderators.
M08: Static Pages	Web resources with static content are associated with this module: about and faq.

2. Permissions

This section defines the permissions used in the modules to establish the conditions of access to resources.

ID	Name	Description
PUB	Public	Users without privileges
USR	User	Authenticated users
OWN	Owner	Users that are authors of content
BAN	Banned	Banned users
MOD	Moderator	Moderators

3. OpenAPI Specification

This section includes the completr API specification in OpenAPI (YAML).

OpenAPI YAML: https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/blob/a8/xekkit/a7_openapi.yaml OpenAPI Swagger: https://app.swaggerhub.com/apis/lbaw2114/lbaw-xekkit_web_api/1.0

```yaml
openapi: 3.0.0

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

servers:
  - description: 'Production server'
    url: http://lbaw2114.lbaw-prod.fe.up.pt/

externalDocs:
  description: Find more info here.
  url: https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/eap#a7-high-level-
  architecture-privileges-web-resources-specification

tags:
  - name: 'M01: Authentication and Individual Profile'
  - name: 'M02: Create/Edit Content'
  - name: 'M03: See Users/Content'
  - name: 'M04: Search Users/Content'
  - name: 'M05: Notifications'
  - name: 'M06: Create Requests'
  - name: 'M07: Moderator Administration'
  - name: 'M08: Static Pages'

  paths:
    # -------------------- M01 --------------------

    /login/:
      get:
        operationId: R101
        summary: 'R101: Login Form'
        description: 'Provide login form. Access: PUB'
```

```
        tags:
          - 'M01: Authentication and Individual Profile'
        responses:
          '200':
            description: 'Ok. Show [UI07]
(hhttps://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/blob/eap/docs/A3.md#ui07:-log-in)'

    post:
      operationId: R102
      summary: 'R102: Login Action'
      description: 'Processes the login form submission. Access: PUB'
      tags:
        - 'M01: Authentication and Individual Profile'

      requestBody:
        required: true
        content:
          application/x-www-form-urlencoded:
            schema:
              type: object
              properties:
                inputUsername:
                  type: string
                inputPassword:
                  type: string
                required:
                  - inputUsername
                  - inputPassword

      responses:
        '303':
          description: 'Redirect after login.'
          headers:
            Location:
              schema:
                type: string
              examples:
                303Success:
                  description: 'Ok. Redirect to [UI02]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui02-main-logged-in)'
                  value: '/'
                303Error:
                  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, MOD, BAN'
      tags:
        - 'M01: Authentication and Individual Profile'
```

```
      responses:
        '303':
          description: 'Redirect after processing the logout.'
          headers:
            Location:
              schema:
                type: string
              examples:
                303Success:
                  description: 'Ok. Redirect to [US01]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui01-main).'
                  value: '/'
                303Error:
                  description: 'Failed logout. Redirect to main page.'
                  value: '/'


  /password-recovery/:
    post:
      operationId: R104
      summary: 'R104: Password Recovery Action'
      description: 'Password recovery action. Access: PUB'
      tags:
        - 'M01: Authentication and Individual Profile'
      requestBody:
        required: true
        content:
          application/x-www-form-urlencoded:
            schema:
              type: object
              properties:
                inputEmail:
                  type: string
              required:
                - inputEmail

      responses:
        '303':
          description: 'Successful request password recorvery. Redirect to login.'
          headers:
            Location:
              schema:
                type: string
              examples:
                303Success:
                  description: 'Ok. Redirect to [US07]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui07-log-in).'
                  value: '/login/'
                303Error:
                  description: 'Failed password recovery. Redirect to login.'
                  value: '/login/'


  /register/:
```

```
    get:
      operationId: R105
      summary: 'R105: See Register Form'
      description: 'Provide new user registration form. Access: PUB'
      tags:
        - 'M01: Authentication and Individual Profile'
      responses:
        '200':
          description: 'Ok. Show [UI08]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/blob/eap/docs/A3.md#ui08:-sign-Up)'

    post:
      operationId: R106
      summary: 'R106: Register Action'
      description: 'Processes the new user registration form submission. Access:
PUB'
      tags:
        - 'M01: Authentication and Individual Profile'

      requestBody:
        required: true
        content:
          application/x-www-form-urlencoded:
            schema:
              type: object
              properties:
                inputUsername:
                  type: string
                inputEmail:
                  type: string
                inputPassword:
                  type: string
                inputBirthDate:
                  type: string
                inputGender:
                  type: string
              required:
                - inputUsername
                - inputEmail
                - inputPassword
                - inputBirthDate
                - inputGender

      responses:
        '303':
          description: 'Redirect after register new user.'
          headers:
            Location:
              schema:
                type: string
              examples:
                303Success:
                  description: 'Ok. Redirect to [UI02]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui02-main-logged-in)'
```

```yaml
                    value: '/'
                  303Error:
                    description: 'Failed register. Redirect to register.'
                    value: '/register/'


  /users/{username}/edit/:
    get:
      operationId: R107'
      summary: 'R107: Edit User Profile Form'
      description: 'Form to edit the individual user profile. Access: USR'
      tags:
        - 'M01: Authentication and Individual Profile'

      parameters:
        - in: path
          name: username
          schema:
            type: string
          required: true

      responses:
        '200':
          description: 'Ok. Show [UI13]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/blob/eap/docs/A3.md#ui13-edit-
profile)'
          content:
            application/json:
              schema:
                $ref: '#/components/schemas/UserEdit'

    patch:
      operationId: R108
      summary: 'R108: Edit User Profile Action'
      description: 'Processes the edit user form submission. Access: USR'
      tags:
        - 'M01: Authentication and Individual Profile'

      parameters:
      - in: path
        name: username
        schema:
          type: string
        required: true

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

```yaml
                email:
                  type: string
                birth_date:
                  type: string
                gender:
                  type: string
                description:
                  type: string
            required:
              - username
              - email
              - birth_date
              - gender

      responses:
        '303':
          description: 'Redirect after edit user action.'
          headers:
            Location:
              schema:
                type: string
              examples:
                303Success:
                  description: 'Ok. Redirect to [UI13]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/blob/eap/docs/A3.md#ui13-edit-
profile)'
                  value: '/users/{username}/edit/'
                303Error:
                  description: 'Failed edition. Redirect to edit page.'
                  value: '/users/{username}/edit/'


  /users/{username}/edit/change-password/:
    patch:
      operationId: R109
      summary: 'R109: Change Password Action'
      description: 'Processes the change user password form submission. Access:
USR'
      tags:
        - 'M01: Authentication and Individual Profile'

      parameters:
        - in: path
          name: username
          schema:
            type: string
          required: true

      requestBody:
        required: true
        content:
          application/x-www-form-urlencoded:
            schema:
              type: object
```

```yaml
                      properties:
                        old_password:
                          type: string
                          format: password
                        new_password:
                          type: string
                          format: password
                        required:
                          - old_password
                          - new_password

            responses:
              '303':
                description: 'Redirect after change password action.'
                headers:
                  Location:
                    schema:
                      type: string
                    examples:
                      303Success:
                        description: 'Ok. Redirect to [UI13]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/blob/eap/docs/A3.md#ui13-edit-
profile)'
                        value: '/users/{username}/edit/'
                      303Error:
                        description: 'Failed to change password. Redirect to edit page.'
                        value: '/users/{username}/edit/'


  /users/{username}/edit/remove-partner/:
    patch:
      operationId: R110
      summary: 'R110: Remove partner status'
      description: 'Remove partner status. Access: USR'
      tags:
        - 'M01: Authentication and Individual Profile'

      parameters:
        - in: path
          name: username
          schema:
            type: string
          required: true

      responses:
        '303':
          description: 'Redirect after remove partner action.'
          headers:
            Location:
              schema:
                type: string
              examples:
                303Success:
                  description: 'Ok. Redirect to [UI13]
```

```
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/blob/eap/docs/A3.md#ui13-edit-
  profile)'
                      value: '/users/{username}/edit/'
                  303Error:
                    description: 'Failed to remove partner. Redirect to edit page.'
                    value: '/users/{username}/edit/'


  /users/{username}/edit/delete/:
    patch:
      operationId: R111
      summary: 'R110: Delete user'
      description: 'Delete user. Access: USR'
      tags:
        - 'M01: Authentication and Individual Profile'

      parameters:
        - in: path
          name: username
          schema:
            type: string
          required: true

      responses:
        '303':
          description: 'Redirect after delete user action.'
          headers:
            Location:
              schema:
                type: string
              examples:
                303Success:
                  description: 'Ok. Redirect to [US01]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui01-main).'
                  value: '/'
                303Error:
                  description: 'Failed to delete user. Redirect to edit page.'
                  value: '/users/{username}/edit/'


  # -------------------- M02 --------------------

  /news/create/:
    post:
      operationId: R201
      summary: 'R201: Create news action'
      description: 'Create news content. Access: USR'
      tags:
        - 'M02: Create/Edit Content'

      requestBody:
        required: true
        content:
          multipart/form-data:
```

```
              schema:
                type: object
                properties:
                  title:
                    type: string
                  body:
                    type: string
                  image:
                    type: string
                    format: binary
                required:
                  - title
                  - body

      responses:
        '303':
          description: 'Redirect after create news post.'
          headers:
            Location:
              schema:
                type: string
              examples:
                303Success:
                  description: 'Ok. Redirect to created post [US09]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui09-post).'
                  value: '/news/{id}/'
                303Error:
                  description: 'Failed to create news post. Redirect to main page
[US02](https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui02-main-logged-
in).'
                  value: '/'


  /comment/create/:
    post:
      operationId: R202
      summary: 'R202: Create comment action'
      description: 'Create comment. Access: USR, MOD'
      tags:
        - 'M02: Create/Edit Content'

      requestBody:
        required: true
        content:
          application/x-www-form-urlencoded:
            schema:
              type: object
              properties:
                body:
                  type: string
                reply_to_id:
                  type: integer
              required:
                - body
```

```yaml
            responses:
              '303':
                description: 'Redirect after create comment.'
                headers:
                  Location:
                    schema:
                      type: string
                    examples:
                      303Success:
                        description: 'Ok. Redirect to commented post [US09]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui09-post).'
                        value: '/news/{id}/'
                      303Error:
                        description: 'Failed to create comment. Redirect to post [US09]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui09-post).'
                        value: '/news/{id}/'

  /news/{id}/:
    patch:
      operationId: R203
      summary: 'R203: Edit news action'
      description: 'Edit news content. Access: OWN'
      tags:
        - 'M02: Create/Edit Content'

      parameters:
        - in: path
          name: id
          schema:
            type: integer
          required: true

      requestBody:
        required: true
        content:
          application/x-www-form-urlencoded:
            schema:
              type: object
              properties:
                title:
                  type: string
                body:
                  type: string
                image:
                  type: string
              required:
                - body

      responses:
        '303':
          description: 'Redirect after edit news post.'
          headers:
            Location:
```

```
                    schema:
                      type: string
                    examples:
                      303Success:
                        description: 'Ok. Redirect to eddited post [US09]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui09-post).'
                        value: '/news/{id}/'
                      303Error:
                        description: 'Failed. Redirect to post [US09]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui09-post).'
                        value: '/news/{id}/'

      delete:
        operationId: R204
        summary: 'R204: Delete News action'
        description: 'Delete News. Access: OWN'
        tags:
          - 'M02: Create/Edit Content'

        parameters:
          - in: path
            name: id
            schema:
              type: integer
            required: true

        responses:
          '303':
            description: 'Redirect after delete news post.'
            headers:
              Location:
                schema:
                  type: string
                examples:
                  303Success:
                    description: 'Ok. Redirect to [UI02]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui02-main-logged-in).'
                    value: '/'
                  303Error:
                    description: 'Failed. Redirect to post [US09]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui09-post).'
                    value: '/news/{id}/'

  /comment/:
    patch:
      operationId: R205
      summary: 'R205: Edit comment action'
      description: 'Edit Comment. Access: OWN'
      tags:
        - 'M02: Create/Edit Content'

      requestBody:
        required: true
        content:
```

```yaml
                application/x-www-form-urlencoded:
                  schema:
                    type: object
                    properties:
                      id:
                        type: integer
                      body:
                        type: string
                    required:
                      - body

          responses:
            '303':
              description: 'Redirect after edit comment.'
              headers:
                Location:
                  schema:
                    type: string
                  examples:
                    303Success:
                      description: 'Ok. Redirect to commented post [US09]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui09-post).'
                      value: '/news/{id}/'
                    303Error:
                      description: 'Failed. Redirect to post [US09]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui09-post).'
                      value: '/news/{id}/'

      delete:
        operationId: R206
        summary: 'R206: Delete comment action'
        description: 'Delete Comment. Access: OWN'
        tags:
          - 'M02: Create/Edit Content'

        parameters:
          - in: header
            name: id
            schema:
              type: integer
            required: true

        responses:
          '303':
            description: 'Redirect after delete comment.'
            headers:
              Location:
                schema:
                  type: string
                examples:
                  303Success:
                    description: 'Ok. Redirect to post [US09]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui09-post).'
                    value: '/news/{id}/'
```

```
                          303Error:
                            description: 'Failed. Redirect to post [US09]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui09-post).'
                            value: '/news/{id}/'

    # ------------------- M03 -------------------

  /:
    get:
      operationId: R301
      summary: 'R301: Home page'
      description: 'Provide home page. Access: PUB, USR, MOD'
      tags:
        - 'M03: See Users/Content'

      responses:
        '200':
          description: 'Ok. IF PUB: Show [UI01]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/blob/eap/docs/A3.md#ui01:-main);
ELSE: Show [UI02]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/blob/eap/docs/A3.md#ui02:-main-
logged-in)'
          content:
            application/json:
              schema:
                type: object
                properties:
                  trending_news:
                    type: array
                    items:
                      $ref: '#/components/schemas/TrendingPost'
                  last_news:
                    type: array
                    items:
                      $ref: '#/components/schemas/Post'
                  explore:
                    type: array
                    items:
                      type: string

  /news/{id}:
    get:
      operationId: R302
      summary: 'R302: View a Specific News Post.'
      description: 'Provide Specific News Post. Access: PUB, USR, OWN, MOD'
      tags:
        - 'M03: See Users/Content'

      parameters:
        - in: path
          name: id
          schema:
            type: integer
          required: true
```

```
      responses:
        '200':
          description: 'Ok. Show [UI09]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui09-post)'
          content:
            application/json:
              schema:
                $ref: '#/components/schemas/Post'
        '404':
          description: 'News post not found.'

  /users/{username}:
    get:
      operationId: R303
      summary: "R303: View a User's profile"
      description: "Provide a User's Profile. Access: PUB, USR, MOD"
      tags:
        - 'M03: See Users/Content'

      parameters:
        - in: path
          name: username
          schema:
            type: string
          required: true

      responses:
        '200':
          description: 'Ok. Show [UI11]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui11-third-party-profile)'
          content:
            application/json:
              schema:
                type: object
                properties:
                  user:
                    $ref: '#/components/schemas/User'
                  trending_news:
                    type: array
                    items:
                      $ref: '#/components/schemas/TrendingPost'
                  last_news:
                    type: array
                    items:
                      $ref: '#/components/schemas/Post'
                  following:
                    type: array
                    items:
                      $ref: '#/components/schemas/UserPreview'
        '404':
          description: 'User not found.'

  /api/load-posts:
```

```
      get:
        operationId: R304
        summary: 'R304: Load More Posts'
        description: 'Load More Posts. Access: PUB, USR'
        tags:
          - 'M03: See Users/Content'
        parameters:
          - in: query
            name: pagination
            schema:
              type: integer
            required: false
          - in: query
            name: page
            schema:
              type: integer
            required: false
          - in: query
            name: sortBy
            schema:
              type: integer
            required: false
        responses:
          '200':
            description: "Return posts for pagination"
            content:
              application/json:
                schema:
                  type: object
                  properties:
                    posts:
                      type: array
                      items:
                        $ref: '#/components/schemas/Post'
          '400':
            description: "Error in parameters"

  /api/load-users:
    get:
      operationId: R306
      summary: 'R306: Load More Users'
      description: 'Load More Users. Access: PUB, USR'
      tags:
        - 'M03: See Users/Content'
      parameters:
        - in: query
          name: pagination
          schema:
            type: integer
          required: false
        - in: query
          name: page
          schema:
            type: integer
```

```yaml
                      required: false
              - in: query
                name: sortBy
                schema:
                    type: integer
                required: false
        responses:
          '200':
            description: "Return users for pagination"
            content:
              application/json:
                schema:
                    type: object
                    properties:
                      posts:
                          type: array
                          items:
                              $ref: '#/components/schemas/User'
          '400':
            description: "Error in parameters"

  /api/load-comments:
    get:
      operationId: R308
      summary: 'R308: Load More Comments'
      description: 'Load More Comments. Access: PUB, USR'
      tags:
        - 'M03: See Users/Content'
      parameters:
        - in: query
          name: pagination
          schema:
              type: integer
          required: false
        - in: query
          name: page
          schema:
              type: integer
          required: false
        - in: query
          name: content_id
          schema:
              type: integer
          required: true
      responses:
        '200':
          description: "Return comments for pagination"
          content:
            application/json:
              schema:
                  type: object
                  properties:
                    posts:
                        type: array
```

```yaml
                    items:
                      $ref: '#/components/schemas/Comment'
          '400':
            description: "Error in parameters"
  /api/vote/:
    post:
      operationId: R309
      summary: 'R309: Upvote/Downvote Content'
      description: 'Upvote/Downvote content. Access: USR'
      tags:
        - 'M03: See Users/Content'

      parameters:
        - in: header
          name: content_id
          schema:
            type: integer
          required: true
        - in: header
          name: upvote
          schema:
            type: boolean
          required: true

      responses:
        '201':
          description: 'Successfully voted on content.'
          content:
            application/json:
              schema:
                type: object
                properties:
                  posts:
                    type: array
                    items:
                      $ref: '#/components/schemas/Message'
        '401':
          description: 'Login to vote.'

    delete:
      operationId: R310
      summary: 'R310: Delete Vote on Content'
      description: 'Delete Vote on Content. Access: USR'
      tags:
        - 'M03: See Users/Content'

      parameters:
        - in: header
          name: content_id
          schema:
            type: integer
          required: true

      responses:
```

```yaml
          '204':
            description: 'Successfully removed vote on content.'
            content:
              application/json:
                schema:
                  type: object
                  properties:
                    posts:
                      type: array
                      items:
                        $ref: '#/components/schemas/Message'
          '401':
            description: 'Login to delete vote.'

    # -------------------- M04 --------------------

    /search/:
      get:
        operationId: R401
        summary: 'R401: Search News and Users'
        description: 'Provide News and Users Searched. Access: PUB, USR, OWN, MOD'
        tags:
          - 'M04: Search Users/Content'

        parameters:
          - in: query
            name: search
            schema:
              type: string
            required: false
            allowReserved: true

        responses:
          '200':
            description: "Ok. Show [UI10]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui10-search)"
            content:
              application/json:
                schema:
                  type: object
                  properties:
                    posts:
                      type: array
                      items:
                        $ref: '#/components/schemas/Post'
                    users:
                      type: array
                      items:
                        $ref: '#/components/schemas/UserPreview'

    # -------------------- M05 --------------------
```

```yaml
  /notifications/:
    get:
      operationId: R501
      summary: "R501: View User's Notification"
      description: "Provide User's Notifications. Access: USR, MOD"
      tags:
        - 'M05: Notifications'

      responses:
        '200':
          description: 'Ok. Show [UI15]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui15-notifications). If
MOD also show [UI16](https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/wikis/er#ui16-
moderator-options)'
          content:
            application/json:
              schema:
                type: object
                properties:
                  follows:
                    type: array
                    items:
                      $ref: '#/components/schemas/FollowNotification'
                  votes:
                    type: array
                    items:
                      $ref: '#/components/schemas/VoteNotification'
                  comments:
                    type: array
                    items:
                      $ref: '#/components/schemas/CommentNotification'
                  moderator:
                    type: array
                    items:
                      $ref: '#/components/schemas/ModeratorNotification'
                    default: []
        '401':
          description: 'Login to see notifications.'

    patch:
      operationId: R502
      summary: "R502: Mark Notification as seen"
      description: "Mark Notification as seen. Access: USR, MOD"
      tags:
        - 'M05: Notifications'

      parameters:
        - in: header
          name: notification
          schema:
            type: object
            properties:
              notification_type:
                type: string
```

```yaml
              id1:
                type: integer
              id2:
                type: integer
            required:
              - notification_type
              - id1
          required: true


      responses:
        '201':
          description: 'Notification marked as seen.'
        '404':
          description: 'Notification not found.'

    delete:
      operationId: R503
      summary: "R503: Delete Notification"
      description: "Dark Notification."
      tags:
        - 'M05: Notifications'

      parameters:
        - in: header
          name: notification
          schema:
            type: object
            properties:
              notification_type:
                type: string
              id1:
                type: integer
              id2:
                type: integer
            required:
              - notification_type
              - id1
          required: true

      responses:
        '201':
          description: 'Notification deleted.'
        '404':
          description: 'Notification not found.'


  # -------------------- M06 --------------------

  /comment/report/:
    post:
      operationId: R601
      summary: "R601: Report comment action"
      description: 'Report comment. Access: USR'
```

```yaml
      tags:
        - 'M06: Create Requests'

      parameters:
        - in: header
          name: id
          schema:
            type: integer
          required: true

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

      responses:
        '201':
          description: 'Report created.'
        '401':
          description: 'Login to report.'

  /news/{id}/report/:
    post:
      operationId: R602
      summary: "R602: Report news action"
      description: 'Report news. Access: USR'
      tags:
        - 'M06: Create Requests'

      parameters:
        - in: path
          name: id
          schema:
            type: integer
          required: true

      requestBody:
        required: true
        content:
          application/x-www-form-urlencoded:
            schema:
              type: object
              properties:
                body:
                  type: string
                required:
                  - body
```

```yaml
      responses:
        '201':
          description: 'Report created.'
        '401':
          description: 'Login to report.'

  /users/{username}/report/:
    post:
      operationId: R603
      summary: "R603: Report User action"
      description: 'Report User. Access: USR, MOD'
      tags:
        - 'M06: Create Requests'

      parameters:
        - in: path
          name: username
          schema:
            type: integer
          required: true

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

      responses:
        '201':
          description: 'Report created.'
        '401':
          description: 'Login to report.'

  /users/{username}/partner_request/:
    post:
      operationId: R604
      summary: "R604: Create partner request action"
      description: 'Create a partner request. Access: USR, MOD'
      tags:
        - 'M06: Create Requests'

      parameters:
        - in: path
          name: username
          schema:
            type: string
          required: true
```

```yaml
    requestBody:
      required: true
      content:
        application/x-www-form-urlencoded:
          schema:
            type: object
            properties:
              reason:
                type: string
            required:
              - reason

    responses:
      '201':
        description: 'Partner request created.'
      '401':
        description: 'Login to create a partner request.'

  /request/{username}/unban_appeal/:
    post:
      operationId: R605
      summary: "R605: Create unban appeal action"
      description: 'Create unban appeal. Access: BAN'
      tags:
        - 'M06: Create Requests'

      parameters:
        - in: path
          name: username
          schema:
            type: string
          required: true

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

      responses:
        '201':
          description: 'Unban appeal created.'
        '401':
          description: 'Login to create an unban appeal.'

  # -------------------- M07 --------------------
```

```yaml
  /request/{id}/accept/:
    patch:
      operationId: R702
      summary: "R702: Accept Request"
      description: 'Accept Request. Access: MOD'
      tags:
        - 'M07: Moderator Administration'

      parameters:
        - in: path
          name: id
          schema:
            type: integer
          required: true
        - in: header
          name: ban_time
          schema:
            type: integer
          required: false

      responses:
        '201':
          description: 'Request accepted.'
        '401':
          description: 'You are not a moderator.'

  /request/{id}/reject/:
    patch:
      operationId: R703
      summary: "R703: Accept Request"
      description: 'Accept Request. Access: MOD'
      tags:
        - 'M07: Moderator Administration'

      parameters:
        - in: path
          name: id
          schema:
            type: integer
          required: true

      responses:
        '201':
          description: 'Request rejected.'
        '401':
          description: 'You are not a moderator.'


  # ------------------- M08 -------------------

  /faq/:
    get:
      operationId: R801
      summary: 'R801: See FAQ'
```

```yaml
        description: 'Frequent asked questions page. Access: PUB, USR, MOD'
        tags:
          - 'M08: Static Pages'

        responses:
          '200':
            description: 'Ok. IF PUB, USR Show [UI05]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/blob/eap/docs/A3.md#ui05-faq)
                          IF MOD Show [UI06]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/blob/eap/docs/A3.md#ui06-edit-faq-
as-moderator'
            content:
              application/json:
                schema:
                  type: array
                  items:
                    $ref: '#/components/schemas/Faq'

    post:
      operationId: R802
      summary: 'R802: Create FAQ'
      description: 'Creat frequent asked question. Access: MOD'
      tags:
        - 'M08: Static Pages'

      requestBody:
        required: true
        content:
          application/json:
            schema:
              type: object
              required:
                - id
                - question
                - answer
              properties:
                id:
                  type: integer
                question:
                  type: string
                answer:
                  type: string

      responses:
        '303':
          description: 'Redirect after create faq.'
          headers:
            Location:
              schema:
                type: string
              examples:
                303Success:
                  description: 'Ok. Redirect to [UI06]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/blob/eap/docs/A3.md#ui06-edit-faq-
```

```
as-moderator).'
                        value: '/faq/'
                  303Error:
                    description: 'Failed to create faq. Redirect to [UI06]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/blob/eap/docs/A3.md#ui06-edit-faq-
as-moderator).'
                        value: '/faq/'

    patch:
      operationId: R803
      summary: 'R802: Edit FAQ'
      description: 'Edit frequent asked question. Access: MOD'
      tags:
        - 'M08: Static Pages'

      requestBody:
        required: true
        content:
          application/json:
            schema:
              type: object
              required:
                - id
                - question
                - answer
              properties:
                id:
                  type: integer
                question:
                  type: string
                answer:
                  type: string

      responses:
        '303':
          description: 'Redirect after edit faq.'
          headers:
            Location:
              schema:
                type: string
              examples:
                303Success:
                  description: 'Ok. Redirect to [UI06]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/blob/eap/docs/A3.md#ui06-edit-faq-
as-moderator).'
                    value: '/faq/'
                303Error:
                  description: 'Failed to edit faq. Redirect to [UI06]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/blob/eap/docs/A3.md#ui06-edit-faq-
as-moderator).'
                    value: '/faq/'

    delete:
      operationId: R804
```

```
      summary: 'R803: Delete FAQ'
      description: 'Delete frequently asked question. Access: MOD'
      tags:
        - 'M08: Static Pages'

      parameters:
        - in: query
          name: id
          schema:
            type: integer
          required: true

      responses:
        '303':
          description: 'Redirect after delete faq.'
          headers:
            Location:
              schema:
                type: string
              examples:
                303Success:
                  description: 'Ok. Redirect to [UI06]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/blob/eap/docs/A3.md#ui06-edit-faq-
as-moderator).'
                  value: '/faq/'
                303Error:
                  description: 'Failed to delete faq. Redirect to [UI06]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/blob/eap/docs/A3.md#ui06-edit-faq-
as-moderator).'
                  value: '/faq/'



  /about/:
    get:
      operationId: R805
      summary: 'R804: About'
      description: 'About page. Access: PUB, USR, MOD'
      tags:
        - 'M08: Static Pages'

      responses:
        '200':
          description: 'Ok. Show [UI04]
(https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/blob/eap/docs/A3.md#ui04-about)'


# ------------------- Components -------------------

components:
  schemas:
    Post:
      type: object
      properties:
```

```yaml
      id:
        type: integer
      title:
        type: string
      image:
        type: string
      nr_votes:
        type: integer
      nr_comments:
        type: integer
      body:
        type: string
      date:
        type: string
      author:
        type: string
      partner:
        type: boolean
      deleted:
        type: boolean
        default: false
      banned:
        type: boolean
        default: false
      tags:
        type: array
        items:
          type: string
      comments:
        type: array
        items:
          $ref: '#/components/schemas/Comment'
        default: []

TrendingPost:
  type: object
  properties:
    id:
      type: integer
    title:
      type: string
    image:
      type: string
    date:
      type: string
    author:
      type: string
    partner:
      type: boolean


UserPreview:
  type: object
  properties:
```

```yaml
      id:
        type: integer
      username:
        type: string
      partner:
        type: boolean
      photo:
        type: string
      reputation:
        type: string

  User:
    type: object
    properties:
      username:
        type: string
      description:
        type: string
      photo:
        type: string
      deleted:
        type: boolean
      banned:
        type: boolean
      reputation:
        type: integer
      partner:
        type: boolean
      moderator:
        type: boolean

  UserEdit:
    type: object
    properties:
      username:
        type: string
      description:
        type: string
      photo:
        type: string
      deleted:
        type: boolean
      banned:
        type: boolean
      reputation:
        type: integer
      partner:
        type: boolean
      moderator:
        type: boolean
      email:
        type: string
      birthdate:
        type: string
```

```
          gender:
            type: string

      Comment:
        type: object
        properties:
          id:
            type: integer
          body:
            type: string
          date:
            type: string
          nr_votes:
            type: integer
          username:
            type: string
          partner:
            type: boolean
          deleted:
            type: boolean
          banned:
            type: boolean
          reply_to:
            type: integer

      FollowNotification:
        type: object
        properties:
          follower_id:
            type: string
          is_new:
            type: boolean
          date:
            type: string

      VoteNotification:
        type: object
        properties:
          voter_id:
            type: string
          content_id:
            type: integer
          is_new:
            type: boolean
          date:
            type: string


      CommentNotification:
        type: object
        properties:
          comment_id:
            type: integer
          is_new:
```

```
           type: boolean
        date:
           type: string


    ModeratorNotification:
      type: object
      properties:
        id:
           type: integer
        from_id:
           type: string
        moderator_id:
           type: string
        reason:
           type: string
        creation_date:
           type: string
        status:
           type: string
        revision_date:
           type: string
        to_users_id:
           type: string
        to_content_id:
           type: integer
        ban_id:
           type: integer

    Faq:
      type: object
      properties:
        id:
           type: integer
        question:
           type: string
        answer:
           type: string

    Message:
      type: object
      properties:
        status:
           type: boolean
        message:
           type: string
```

A8: Vertical prototype

The Artificat A8 (Vertical Prototype) includes the implementation of some user stories and aims to validate the architecture presented.

1. Implemented Features

1.1. Implemented User Stories

User Story reference	Name	Priority	Description
US04	Search Using Keywords	High	As an *User*, I want to search news and user profiles, so that I can find news/users related to the keywords used on the search.
US07	View Specific Post	High	As an *User*, I want to be able to view one news, so that I can see all the information related to that post (commments, entire description, author, author reputation, etc.).
US11	Sign-in	High	As a *Guest*, I want to authenticate into the system, so that I can access privileged information.
US12	Register	High	As a *Guest*, I want to register into the system, so that I can authenticate myself into the system.
US22	Create News	High	As an *Autheticated User*, I want to create News, so that it is publicly available.
US27	Sign Out	High	As an *Authenticated User*, I want to sign out of the system, so that I can become a guest.
US31	Edit New	High	As a *Author*, I want to edit a post I previously posted, so that I can keep the information updated.
US32	Remove New	High	As a *Author*, I want to remove a post I previously posted, so that it is no longer publicly available.

1.2. Implemented Web Resources

M01: Authentication and Individual Profile

Web Resource Reference	URL
R101: Login Form	GET /login/
R102: Login Action	POST /login/
R103: Logout Action	POST /logout/
R105: See Register Form	GET /register/
R106: Register Action	POST /register/

M02: Create/Edit Content

Web Resource Reference	URL

Web Resource Reference	URL
R201: Create news action	POST /news/create/
R203: Edit news action	PATCH /news/{id}/
R204: Delete news action	DELETE /news/{id}/

M03: See Users/Content

Web Resource Reference	URL
R302: View a Specific News Post	GET /news/{id}/

M04: Search Users/Content

Web Resource Reference	URL
R401: Search News and Users	GET /search/

2. Prototype

The prototype is available at http://lbaw2114.lbaw-prod.fe.up.pt/

Credentials:

- **Moderator**:
    - Username: ricardo
    - Password: test1234
- **Partner**:
    - Username: andre
    - Password: test1234
- **Authenticated User**:
    - Username: joao
    - Password: test1234

The code is available at https://git.fe.up.pt/lbaw/lbaw2021/lbaw2114/-/tree/master/xekkit

Revision history

Changes made to the first submission (03/05/2021):

GROUP2114, 03/05/2021

- Beatriz Mendes, up201806551@fe.up.pt (A7 editor)
- Guilherme Calassi, up201800157@fe.up.pt
- Luís André Assunção, up201806140@fe.up.pt (A8 editor)
- Ricardo Cardoso, up201604686@fe.up.pt