

# A7: Web Resources Documentation

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Our project, answerly, is a web application for collaborative questions and answers.

The architecture of the web application to develop is documented indicating the catalogue of resources and the properties of each resource, including: references to the graphical interfaces, and the format of JSON responses. This page presents the documentation for *Answerly*, including the following operations over data: create, read, update, and delete.

## 1. Overview

In this section is presented an overview of the web application to implement. The modules are identified and briefly described and the web resources associated with each module are detailed in the individual documentation of each module.

M01: Authentication and Individual Profile	Web resources associated with user authentication and individual profile management. Includes features: login/ logout and registration, view and edit personal profile information.
M02: Questions, Answers and Comments	Web resources associated with questions, answers and their comments. Includes features: add, view, upvote, downvote, follow and report questions, add, view, upvote, downvote and report answers, and add, view and report comments. Also deals with searches.
M03: Website Administration	Web resources associated with management of the website. Includes features: user promotion, demotion and banishment, posts management.
M04: Static Pages	Web resources with static content are associated with this module: About page.

## 2. Permissions

PUB	Guests	People just visiting the site
USR	Authenticated Users	Registered users with the ability of posting to the website.
OWN	Owner	Users that are owners of the information.
MOD	Moderators	Group of Authenticated Users with Website Management Privileges
ADM	Administrators	Highest level of Website Management

## 3. Modules

This section documents each web resource of each module, indicating the URL, HTTP methods, the possible parameters, body request, interfaces with the user (referring to the A3 artefact), or JSON responses in the event of AJAX call to the API.

### 3.1 Module M01: Authentication and Individual Profile

Endpoints of Module Authentication and Individual Profile:

- R101: Login Form [/login](#)
- R102: Login Action [/login](#)
- R103: Logout Action [/logout](#)
- R104: Register Form [/register](#)
- R105: Register Action [/register](#)
- R106: View Profile [/user/{id}](#)
- R107: Edit Profile Form [/user/{id}](#)
- R108: Edit Profile Action [/user/{id}](#)

R101: Login Form

URL	<a href="#">/login</a>
Description	Page with form to login to a user account
Method	GET
UI	<a href="#">UI01</a>
SUBMIT	R102
Permissions	PUB

R102: Login Action

URL	<a href="#">/login</a>
Description	This web resource logs the user into the system. Redirects to the home page on success and the login form on failure.
Method	POST
Request Body	+username:string (Username)
	+password:string (Password)
Redirects	R201 (on SUCCESS)
	R101 (on ERROR)
Permissions	PUB

R103: Logout Action

URL	<a href="#">/logout</a>
Description	This web resource logs out the user from the system. Redirects to the login page.

Method	POST
Redirects	R101 (on SUCCESS)
Permissions	USR, MOD, ADM

## R104: Register Form

URL	<a href="#">/register</a>
Description	This web resource register a new user account.
Method	GET
UI	<a href="#">UI06</a>
SUBMIT	R105
Permissions	PUB

## R105: Register Action

URL	<a href="#">/register</a>
Description	This web resource inserts the user into the system. Redirects to the home page on success and the register form on failure.
Method	POST
Request Body	first_name:string (First Name)
	last_name:string (Last Name)
	email:string (Email)
	birthday:date (Birthday)
	username:string (Username)
	password:string (Password)
	bio:string (Description)
Redirects	R201 (on SUCCESS)
	R104 (on ERROR)
Permissions	PUB

## R106: View Profile

URL	<a href="#">/user/{id}</a>
Description	Shows a user's profile page

Method	GET
Paramaters	+id:integer (user's primary key)
UI	<a href="#">UI05</a>
Response Body	JSON106
Permissions	PUB

## R107: Edit Profile Form

URL	<a href="/user/{id}">/user/{id}</a>
Description	Page with a form to edit profile info.
Method	GET
Paramaters	+id:integer (user's primary key)
UI	<a href="#">UI05</a>
SUBMIT	R108
Permissions	USR

## R108: Edit Profile Action

URL	<a href="/user/{id}">/user/{id}</a>
Description	This web resource changes user profile information based on the input received. Redirects to the user profile on success and edit profile page on failure.
Method	POST
Request Body	first_name:string (First Name)
	last_name:string (Last Name)
	email:string (Email)
	bio:string (Description)
	username:string (Username)
	password:string (Password)
Redirects	R106 (on SUCCESS)
	R107 (on ERROR)
Permissions	USR

## 3.2 Module M02: Questions, Answers and Comments

## Endpoints of Module Questions, Answers and Comments:

- R201: Home [/home](#)
- R202: Search Form [/search](#)
- R203: Search Action [/search](#)
- R204: View Question [/question/{id}](#)
- R205: Add Question Form [/question/add](#)
- R206: Add Question Action [/question/add](#)
- R207: Upvote Question [/question/{id}](#)
- R208: Downvote Question [/question/{id}](#)
- R209: Follow Question [/question/{id}](#)
- R210: Report Question [/question/{id}](#)
- R211: View Answer [/question/{id}](#)
- R212: Add Answer Form [/question/{id}](#)
- R213: Add Answer Action [/question/{id}](#)
- R214: Upvote Answer [/question/{id}](#)
- R215: Downvote Answer [/question/{id}](#)
- R216: Report Answer [/question/{id}](#)
- R217: View Comment [/question/{id}](#)
- R218: Add Comment Form [/question/{id}](#)
- R219: Add Comment Action [/question/{id}](#)
- R220: Report Comment [/question/{id}](#)

## R201: Home

URL	<a href="#">/home</a>
Description	Shows the home page, with some relevant questions and popular labels
Method	GET
UI	<a href="#">UI02</a>
Response Body	JSON201
Permissions	PUB

## R202: Search Form

URL	<a href="#">/search</a>
Description	Page with a form regarding the search for specific questions
Method	GET
Parameters	?content:string (Question content, title or label)
	?answered:boolean (Answered)
	?positive_score:boolean (Positive Score)
	?start:date (Start)

	?end:date (End)
UI	UI07
AJAX Calls	R203
Permissions	PUB

## R203: Search Action

URL	/search
Description	This web resource searches the system for questions and returns the results.
Method	GET
Parameters	?content:string (Question content, title or label)
	?answered:boolean (Answered)
	?positive_score:boolean (Positive Score)
	?start:date (Start)
	?end:date (End)
Response Body	JSON203
Permissions	PUB

## R204: View Question

URL	/question/{id}
Description	Shows the the question page, including its answers and comments
Method	GET
Parameters	+id:integer (question's primary key)
UI	UI03
AJAX Calls	R505
	R509
Response Body	JSON204
Permissions	PUB USR

## R205: Add Question Form

URL	/question/add
Description	Page with a form to post a new question.

Method	GET
UI	UI09
SUBMIT	R206
Permissions	USR

#### R206: Add Question Action

URL	<a href="#">/question/add</a>
Description	This web resource creates a new question based on the input received. Redirects to the new question page on success and back to the question form on failure.
Method	POST
Request Body	title:string (Title) description:string (Content)
Redirects	R204 (on SUCCESS) R205 (on ERROR)
Permissions	USR

#### R207: Upvote Question

URL	<a href="#">/question/{id}</a>
Description	Lets the user upvote a question and see how many people upvoted
Method	GET
UI	<a href="#">UI03</a>
Permissions	USR

#### R208: Downvote Question

URL	<a href="#">/question/{id}</a>
Description	Lets the user downvote a question and see how many people downvoted.
Method	GET
UI	<a href="#">UI03</a>
Permissions	USR

#### R209: Follow Question

URL	<a href="/question/{id}">/question/{id}</a>
Description	Lets the user follow a question.
Method	GET
UI	<a href="#">UI03</a>
Permissions	USR

## R210: Report Question

URL	<a href="/question/{id}">/question/{id}</a>
Description	Lets the user report a question
Method	GET
UI	<a href="#">UI03</a>
Permissions	USR

## R211: View Answer

URL	<a href="/question/{id}">/question/{id}</a>
Description	Shows the the answers section, on the question page.
Method	GET
Parameters	+id:integer (answers's primary key)
UI	<a href="#">UI03</a>
AJAX Calls	R506
	R510
Response Body	JSON211
Permissions	PUB USR

## R212: Add Answer Form

URL	<a href="/question/{id}">/question/{id}</a>
Description	Section with a form to post a new answer.
Method	GET
UI	<a href="#">UI03</a>
SUBMIT	R212
Permissions	USR



## R213: Add Answer Action

URL	<a href="/question/{id}">/question/{id}</a>
Description	This web resource creates a new answer based on the input received. Redirects to the question page on success and back to the answer form on failure.
Method	POST
Request Body	content:string (Content)
Redirects	R204 (on SUCCESS)
	R211 (on ERROR)
Permissions	USR

## R214: Upvote Answer

URL	<a href="/question/{id}">/question/{id}</a>
Description	Lets the user upvote an answer and see how many people upvoted
Method	GET
UI	<a href="#">UI03</a>
Permissions	USR

## R215: Downvote Answer

URL	<a href="/question/{id}">/question/{id}</a>
Description	Lets the user downvote an answer and see how many people downvoted.
Method	GET
UI	<a href="#">UI03</a>
Permissions	USR

## R216: Report Answer

URL	<a href="/question/{id}">/question/{id}</a>
Description	Lets the user report an answer
Method	GET
UI	<a href="#">UI03</a>
Permissions	USR

## R217: View Comment

URL	<a href="#">/question/{id}</a>
Description	Shows the the comments section, on the question page.
Method	GET
Parameters	+id:integer (comment's primary key)
UI	<a href="#">UI03</a>
AJAX Calls	R507
	R511
	R512
Response Body	JSON217
Permissions	PUB USR

## R218: Add Comment Form

URL	<a href="#">/question/{id}</a>
Description	Section with a form to post a new comment.
Method	GET
UI	<a href="#">UI03</a>
SUBMIT	R217
Permissions	USR

## R219: Add Comment Action

URL	<a href="#">/question/{id}</a>
Description	This web resource creates a new comment based on the input received. Redirects to the question page on success and back to the comment form on failure.
Method	POST
Request Body	content:string (Content)
Redirects	R204 (on SUCCESS)
	R216 (on ERROR)
Permissions	USR

## R220: Report Comment

URL	<a href="#">/question/{id}</a>
Description	Lets the user report a comment.
Method	GET
UI	<a href="#">UI03</a>
Permissions	USR

### 3.3 Module M03: Website Administration

Endpoints of Website Administration:

- R501: Access moderation area [/admin/{admin\_id}]
- R502: Ban user [/admin/{admin\_id}/user/{user\_id}/ban]
- R503: Promote user [/admin/{admin\_id}/user/{user\_id}/promote]
- R504: Demote user [/admin/{admin\_id}/user/{user\_id}/demote]
- R505: Edit question [/question/{id}/edit]
- R506: Edit answer [/question/{question\_id}/answer/{answer\_id}]
- R507: Edit comment of a question [/question/{question\_id}/comment/{comment\_id}]
- R508: Edit comment of an answer  
[/question/{question\_id}/answer/{answer\_id}/comment/{comment\_id}]
- R509: Delete question [/question/{id}]
- R510: Delete answer [/question/{question\_id}/answer/{answer\_id}]
- R511: Delete comment of a question [/question/{question\_id}/comment/{comment\_id}]
- R512: Delete comment of an answer  
[/question/{question\_id}/answer/{answer\_id}/comment/{comment\_id}]

R501: Access moderation area

URL	<a href="#">/admin/{admin_id}</a>
Description	Shows moderation area page.
Method	GET
Parameters	+admin_id: integer
UI	<a href="#">UI04</a>
Permissions	MOD, ADM

R502: Ban user

URL	<a href="#">/admin/{id}/user/{id}/ban</a>
Description	This web resource bans a user.
Method	PUT
Parameters	+admin_id: integer

	+user_id: integer
Returns	200 OK
	400 Bad request
	404 Not Found
Permissions	MOD, ADM

## R503: Promote user

URL	/admin/{admin_id}/user/{user_id}/promote
Description	This web resource promotes an authenticated user to moderator or a moderator to administrator.
Method	PUT
Parameters	+admin_id: integer
	+user_id: integer
Returns	200 OK
	400 Bad request
	404 Not Found
Permissions	ADM

## R504: Demote user

URL	/admin/{admin_id}/user/{user_id}/demote
Description	This web resource demotes a moderator to an authenticated user or an administrator to moderator.
Method	PUT
Parameters	+admin_id: integer
	+user_id: integer
Returns	200 OK
	400 Bad request
	404 Not Found
Permissions	ADM

## R505: Edit question

URL	[/question/{id}]
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Description	This web resource edits a question.
Method	PUT
Parameters	+id: integer
Returns	200 OK
	400 Bad request
	404 Not Found
Permissions	OWN, ADM

## R506: Edit answer

URL	<code>[/question/{question_id}/answer/{answer_id}]</code>
Description	This web resource edits an answer.
Method	PUT
Parameters	+question_id: integer
	+answer_id: integer
Returns	200 OK
	400 Bad request
	404 Not Found
Permissions	OWN, ADM

## R507: Edit comment of a question

URL	<code>[/question/{question_id}/comment/{comment_id}]</code>
Description	This web resource edits a comment of a question.
Method	PUT
Parameters	+question_id: integer
	+comment_id: integer
Returns	200 OK
	400 Bad request
	404 Not Found
Permissions	OWN, ADM

## R508: Edit comment of an answer

URL	<a href="#">[/question/{question_id}/answer/{answer_id}/comment/{comment_id}]</a>
Description	This web resource edits a comment of an answer.
Method	PUT
Parameters	+question_id: integer
	+answer_id: integer
	+comment_id: integer
Returns	200 OK
	400 Bad request
	404 Not Found
Permissions	OWN, ADM

## R509: Delete a question

URL	<a href="#">[/question/{id}]</a>
Description	This web resource deletes a question.
Method	DELETE
Parameters	+id: integer
Returns	200 OK
	400 Bad request
	404 Not Found
Permissions	OWN, ADM

## R510: Delete an answer

URL	<a href="#">[/question/{question_id}/answer/{answer_id}]</a>
Description	This web resource deletes an answer.
Method	DELETE
Parameters	+id: integer
	+answer_id: integer
Returns	200 OK
	400 Bad request
	404 Not Found
Permissions	OWN, ADM

## R511: Delete comment of a question

URL	<code>[/question/{question_id}/comment/{comment_id}]</code>
Description	This web resource deletes a comment of a question.
Method	DELETE
Parameters	+question_id: integer
	+comment_id: integer
Returns	200 OK
	400 Bad request
	404 Not Found
Permissions	OWN, ADM

## R511: Delete comment of an answer

URL	<code>[/question/{question_id}/answer/{answer_id}/comment/{comment_id}]</code>
Description	This web resource deletes a comment of an answer.
Method	DELETE
Parameters	+question_id: integer
	+answer_id: integer
	+comment_id: integer
Returns	200 OK
	400 Bad request
	404 Not Found
Permissions	OWN, ADM

## 3.4 Module M04: Static Pages

Endpoints of Static pages:

\*R601: About `[/about]` \*R602: 404 `[/404]`

## R601: About

URL	<code>/about</code>
Description	Get about page.
Method	GET

UI	UI08
Permissions	PUB

R602: 404

URL	/404
Description	Get 404 page.
Method	GET
UI	UI10
Permissions	PUB

## 4. JSON/XML Types

The structure of the JSON formatted answers must be documented as illustrated below.

JSON106: User Profile: {user}

```
{
  "user":
  {
    "id": "7",
    "first_name": "Paulo",
    "last_name": "Cardoso",
    "email": "pcardoso@gmail.com",
    "bio": "caixa",
    "username": "pcardoso",
  },
  "label_following": [
    {
      "user_id": "7",
      "label_id": "19"
    },
    {
      "user_id": "7",
      "label_id": "20"
    }
  ],
  "notifications": [
    {
      "id": "14",
      "content": "A user has answered a question you follow",
      "date": "2019-12-1",
      "user_id": "7"
    },
    {
```



```

        "id": "21",
        "content": "A user has answered a question of yours",
        "date": "2020-02-05",
        "user_id": "7"
    }
],
"question": [
    {
        "id": "6",
        "user_id": "7",
        "title": "Can someone explain to me the AirPods hype?",
    },
    {
        "id": "31",
        "user_id": "7",
        "title": "Running a website on a localhost.",
    }
]
}

```

JSON203: Search Questions: {questions}[]

```

{
  "question": [
    {
      "id": "1",
      "user_id": "4",
      "title": "Name some great method actors",
      "nr_likes": "7",
      "nr_dislikes": "2",
    },
    {
      "id": "7",
      "user_id": "5",
      "title": "Running a program from within java code",
      "nr_likes": "7",
      "nr_dislikes": "5",
    }
  ]
}

```

JSON204: Question: {question}

```

{
  "question":
  {

```

```

    "id": "4",
    "user_id": "3",
    "title": "Is there a difference between every day and everyday?",
    "description": "This an english language question that has always
    tormented me. I never know which of the two should I use, or if there is
    any difference at all.",
    "nr_likes": "10",
    "nr_dislikes": "11",
    "question_date": "2019-04-18"
  }
}

```

### JSON211: Answer: {answer}

```

{
  "answer":
  {
    "id": "4",
    "user_id": "2",
    "question_id": "4",
    "answer_date": "2019-05-01",
    "content": "I'm glad you realize there is a difference, because many
    people don't. When you do something daily, let's say, then you do it every
    day. Every. Day. Two words. Two separate words. "Every day" means, refers
    to, and includes all days, just like "every cantaloupe" means, refers to,
    and includes all cantaloupes. You get the idea. When something is
    commonplace, ordinary, mundane, routine, average, run-of-the-mill, plain,
    or typical, then it can be accurately described as everyday. One word. One.
    "Everyday" is an adjective, a descriptor.",
    "nr_likes": "30",
    "nr_dislikes": "2",
  }
}

```

### JSON217: Comment: {comment}

```

{
  "comment":
  {
    "id": "1",
    "user_id": "3",
    "question_id": "1",
    "answer_id": "NULL",
    "comment_date": "2019-12-07",
    "content": "I believe it would also be interesting if people

```

```
commented on the worse method actors as well."  
    }  
}
```

## Revision history

1. First submission (13/04/2020).
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GROUP2064, 13/04/2020

- Antonio Pedro Reis Ribeiro Sousa Dantas, up201703878@fe.up.pt
- [Editor] Eduardo João Santana Macedo, up201703658@fe.up.pt
- Nuno Miguel Teixeira Cardoso, up201706162@fe.up.pt
- Paulo Roberto Dias Mourato, up201705616@fe.up.pt