

SportChef

Technical Documentation

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Abstract

This document holds the technical documentation for SportChef, a suite of applications and services to organise sports events from registration through the execution to the ranking list publication, everything in real-time!

Here you can find the definitions and specifications needed to develop all parts of SportChef and provide maintenance. Actually SportChef is under heavy development — this means that this document is under heavy development, too!

Acknowledgements

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Contents

Contents	3
1 Common	5
1.1 Communication	5
1.2 Security	5
1.3 Definitions	5
1.3.1 Server	5
1.3.2 Webinterface	5
2 Application Programming Interface	7
2.1 General information	7
2.1.1 JSON listings	7
2.2 Event Resource	7
2.2.1 Create a new event	7
2.2.2 Read an existing event	7
2.2.3 Read all events	8
2.3 User Resource	8
2.3.1 Create a new user	8
2.3.2 Read an existing user	8
2.3.3 Read all users	9
2.3.4 Update an existing user	9
2.3.5 Delete existing users	9
A List of Figures	11
B List of Tables	13
C License	15

Chapter 1

Common

1.1 Communication

The communication between the server and the clients is based on HTTP¹ requests and uses the REST² approach. Data that will be exchanged between the server and the clients has to conform to the JSON³ standard.

1.2 Security

While the first version is under development, the connections are not encrypted. SSL⁴ security (HTTPS⁵) will be added later before the release. This decision is based on two reasons: First, a commercial SSL certificate is needed which is valid only for a limited time. Buying it before it is really needed makes no sense and wastes money. Second, adding security using SSL certificates adds additional complexity to development in a very early stage which makes the learning curve for new developers unnecessary steep.

1.3 Definitions

1.3.1 Server

Technical specifications

The SportChef server is written in Java⁶ using JavaEE⁷ technology and can be deployed to every application server⁸ which is Java EE 7 compatible.

1.3.2 Webinterface

Technical specifications

The web client is written in Java using JSF⁹ technology and the PrimeFaces¹⁰ framework.

¹http://en.wikipedia.org/wiki/Hypertext_Transfer_Protocol

²http://en.wikipedia.org/wiki/Representational_state_transfer

³<http://en.wikipedia.org/wiki/JSON>

⁴http://en.wikipedia.org/wiki/Transport_Layer_Security

⁵http://en.wikipedia.org/wiki/HTTP_Secure

⁶[http://en.wikipedia.org/wiki/Java_\(programming_language\)](http://en.wikipedia.org/wiki/Java_(programming_language))

⁷https://en.wikipedia.org/wiki/Java_Platform,_Enterprise_Edition

⁸https://en.wikipedia.org/wiki/Application_server

⁹https://en.wikipedia.org/wiki/JavaServer_Faces

¹⁰<http://www.primefaces.org>

Browser support

The SportChef web interface uses HTML 5, so every HTML 5 capable browser will do. The web interface can be accessed by desktop systems as well as by tablet computers and smartphones. The user interface is fully responsive.

Chapter 2

Application Programming Interface

2.1 General information

2.1.1 JSON listings

The JSON listings in this documentation are reformatted for better readability. The server usually delivers a "compressed" variant without unnecessary spaces and line breaks.

2.2 Event Resource

2.2.1 Create a new event

Send a POST request with the following JSON to the URI: /api/events

```
1 {  
2   "title" : "Christmas Party",  
3   "location" : "Town Hall",  
4   "date" : "2015-12-24",  
5   "time" : "18:00"  
6 }
```

The response usually is a "201 Created" with a "Location" header set to the URI of the newly created event or an error response.

2.2.2 Read an existing event

Send a GET request to the URI: /api/events/{eventId}

The response usually is a "200 OK" with the following JSON or an error response.

```
1 {  
2   "eventId" : 1,  
3   "title" : "Christmas Party",  
4   "location" : "Town Hall",  
5   "date" : "2015-12-24",  
6   "time" : "18:00"  
7 }
```

2.2.3 Read all events

Send a GET request to the URI: /api/events

The response usually is a "200 OK" with the following JSON or an error response.

```
1 [
2   {
3     "eventId" : 1,
4     "title" : "Christmas Party",
5     "location" : "Town Hall",
6     "date" : "2015-12-24",
7     "time" : "18:00"
8   },
9   {
10    "eventId" : 2,
11    "title" : "New Year Party",
12    "location" : "Town Hall",
13    "date" : "2015-12-31",
14    "time" : "20:00"
15  }
16 ]
```

2.3 User Resource

2.3.1 Create a new user

Send a POST request with the following JSON to the URI: /api/users

```
1 {
2   "firstName" : "John",
3   "lastName" : "Doe",
4   "phone" : "+41 79 555 00 01",
5   "email" : "john.doe@sportchef.ch"
6 }
```

The response usually is a "201 Created" with a "Location" header set to the URI of the newly created user or an error response.

2.3.2 Read an existing user

Send a GET request to the URI: /api/users/{userId}

The response usually is a "200 OK" with the following JSON or an error response.

```
1 {
2   "userId" : 1,
3   "firstName" : "John",
4   "lastName" : "Doe",
5   "phone" : "+41 79 555 00 01",
6   "email" : "john.doe@sportchef.ch"
7 }
```

2.3.3 Read all users

Send a GET request to the URI: `/api/users`

The response usually is a "200 OK" with the following JSON or an error response.

```
1 [
2   {
3     "userId" : 1,
4     "firstName" : "John",
5     "lastName" : "Doe",
6     "phone" : "+41 79 555 00 01",
7     "email" : "john.doe@sportchef.ch"
8   },
9   {
10    "userId" : 2,
11    "firstName" : "Jane",
12    "lastName" : "Doe",
13    "phone" : "+41 79 555 00 02",
14    "email" : "jane.doe@sportchef.ch"
15  }
16 ]
```

2.3.4 Update an existing user

Send a PUT request with the following JSON to the URI: `/api/users/{userId}`

```
1 {
2   "firstName" : "Jane",
3   "lastName" : "Doe",
4   "phone" : "+41 79 555 00 01",
5   "email" : "jane.doe@sportchef.ch"
6 }
```

The data of the user with the specified ID will be replaced by the data specified in the JSON. The response usually is a "200 OK" with the following JSON and a "Location" header set to the URI of the modified user or an error response.

```
1 {
2   "userId" : 1,
3   "firstName" : "Jane",
4   "lastName" : "Doe",
5   "phone" : "+41 79 555 00 01",
6   "email" : "jane.doe@sportchef.ch"
7 }
```

2.3.5 Delete existing users

Send a DELETE request to the URI: `/api/users/{userId}`

The data of the user with the specified ID will be deleted. The response usually is a "204 No Content" or an error response.

A List of Figures

B List of Tables

Appendix C

License

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