

# PhoS

## - Phobia Smart Assistant -

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# 1. Introduction

PhoS (Phobia Smart Assistant) is an application designed for people suffering of different phobias. It helps them to discover dangerous contexts that might interfere with their fears, offering in the same time possibilities to treat or to avoid them. They can also read more information about any phobia, including definitions and medical advices. If a user finds himself in a phobia's characteristics, he can add it to his profile's phobias list.

The users can connect to each other and can use the others' profiles information to avoid situations that can be uncomfortable for their phobias.

## 2. Technologies

### 2.1. HTML 5

HTML 5 is a markup language used for structuring and presenting content on the World Wide Web. This version of markup language is adapted to mobile devices as well. It is built to make things easier and more cross browser friendly. Html5 provides better interaction and a more dynamic website. In this application, HTML5 is used for the user interface part, to offer a dynamic interactive communication.

### 2.2. Bootstrap

Bootstrap is a framework used for developing responsive web applications

### 2.3. Javascript

Javascript is most commonly used as a client side scripting language. For Phos, its main use will be to interpret and manage RDF-related data. With Javascript, the RDF data will be parsed, queried and processed.

### 2.4. Java J2EE

Java is a high level, object-oriented, platform independent language. Java Enterprise Edition is a platform that offers an API that allows the developer to create complex applications with information stored in databases and also, most important for PhoS application, developing Web application, based on servlets, jsp pages, etc.

### 2.5. MySQL

MySQL is an open-source relational database management system. This management system is based on Structured Query Language (SQL) and runs on all the platforms (Linux,

UNIX and Windows). For developing PhoS, this is used to store profile's users and data about phobias.

## 2.6. Apache Jena

Apache Jena is an open source Java framework used for building Semantic Web and Linked Data applications. This framework offers the developer the possibility to use Fuseki, a SPARQL server, which in this application is used in this application to extract data and to write them to RDF graphs.

## 2.7. SPARQL

SPARQL is a query language intended to be used to retrieve and manipulate data stored in RDF format. In PhoS development process, it is used in Fuseki server requests.

## 2.8. API

In order to create HTTP requests between PhoS clients and the server-side, it is used an API developed in Java which allows retrieving data about users, phobias and user profile. The endpoints used for this communication are:

`/phobias`

The Phobias endpoint returns a list of phobias. The response includes the display name, a short description and an id for each phobia.

`/phobia/{id}`

The Phobia corresponding to the specified id endpoint returns a short definition, a description, medical advices, an image URL, possible causes and exercises to treat the specified phobia.

`/addToPhobiasList/{id}`

The AddToPhobiasList endpoint allows a user to add a new phobia (corresponding to the specified id) to his list of phobias.

`/activities`

The Activities endpoint returns a list of activities. The response includes the type and an id for each activity.

`/activity/{id}`

The Activity endpoint returns a list of details. The response includes the name, type and an id for each detail.

`/checkActivity`

The CheckActivity endpoint allows a user to check the safety of the activity he wants to do.

`/suggestions/{id}`

The Suggestions endpoint allows a user to get a list of suggestion to avoid a certain phobia.

`/groups`

The Groups endpoint returns a list of groups. The response includes the display name and an id for each group.

`/group`

The Group endpoint returns a list of people. The response includes the display name, a photo url and an id for each person.

`/addPersonToGroup`

The AddPersonToGroup endpoint allows a user to add a new person to his groups.

`/updateProfile`

The AboutMe endpoint allows a user to complete his profile.

`/me`

The User Profile endpoint returns information about the user that has authorized with the application.

/pets

The Pets endpoint returns a list of pets that a user can have.

/vices

The Vices endpoint returns a list of vices that a user can have.

/login

The Login endpoint allows an user to log in.

/logout

The Logout endpoint allows an user to log out

### 3. Data Sources

To retrieve various information about phobias and bindings between them, PhoS application uses Wikipedia based data sources described below:

#### 3.1. DBpedia

DBpedia is a project that allows users to semantically query relationships and properties associated with Wikipedia resources, including links to other related datasets. The language used for queries is SPARQL, a SQL-like query language for RDF (Resource Description Framework).

#### 3.2. DisGeNET

DisGeNET is a database that integrates human gene-disease associations (GDAs) from various expert curated databases and text-mining derived associations including Mendelian, complex and environmental diseases

## Bibliography

- <https://en.wikipedia.org/wiki/HTML5>
- [http://profs.info.uaic.ro/~acf/java/Cristian\\_Frasinaru-Curs\\_practic\\_de\\_Java.pdf](http://profs.info.uaic.ro/~acf/java/Cristian_Frasinaru-Curs_practic_de_Java.pdf)
- <http://tympanus.net/codrops/2011/11/24/top-10-reasons-to-use-html5-right-now/>
- <http://searchenterprise-linux.techtarget.com/definition/MySQL>
- <http://dev.mysql.com/doc/refman/5.7/en/what-is-mysql.html>
- <https://jira.apache.org/>
- <http://www.disgenet.org/web/DisGeNET/menu/home>