

Bot Libre Web Platform

Overview

This is a high level design document for the Bot Libre web platform. The Bot Libre web platform is a Java web application that supports cloud hosting of bots , live chat, forums, and other content.

The Bot Libre web platform uses the Tomcat web server, and the PostgreSQL database.

The Bot Libre web platform provides both a web HTML interface, an XML and JSON web API, and a JavaScript SDK.

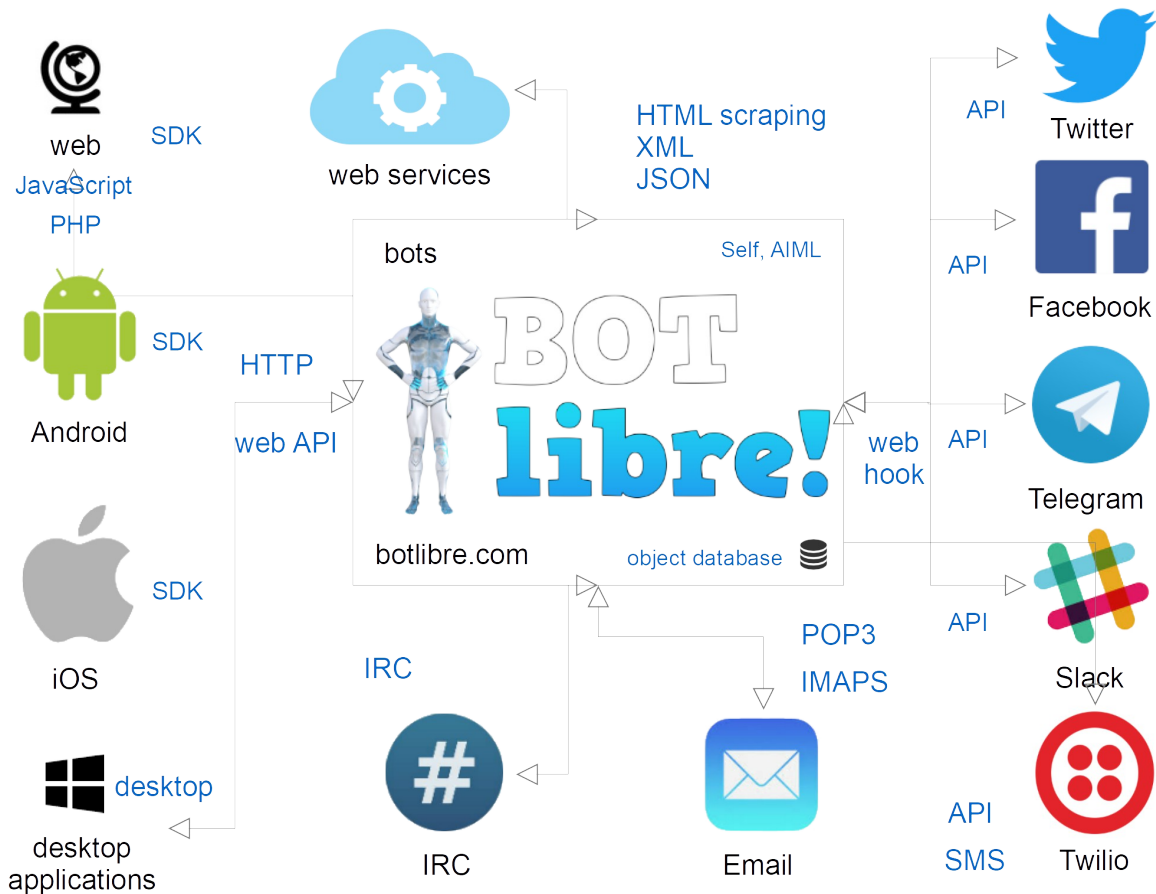
The Bot Libre web platform services:

- Bot hosting
- Bot creation and development
- Bot admin and monitoring
- Bot embedding
- Facebook automation service
- Twitter automation service
- Telegram automation service
- Slack automation service
- Email automation service
- Timer service
- Live chat hosting
- Live chat admin and monitoring
- Live chat embedding
- Forum hosting
- Animated avatars
- Text to Speech
- Graphics library
- Script library
- User management

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- User directory
- Isolated domain work spaces
- Server statistics and console

Architecture



Bot Libre is composed of several component layers.

These include:

- JSP files
- Servlets
- JAXRS REST service

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- Bean classes
- Live Chat web sockets
- Object model
- Database service
- Social media and timer services

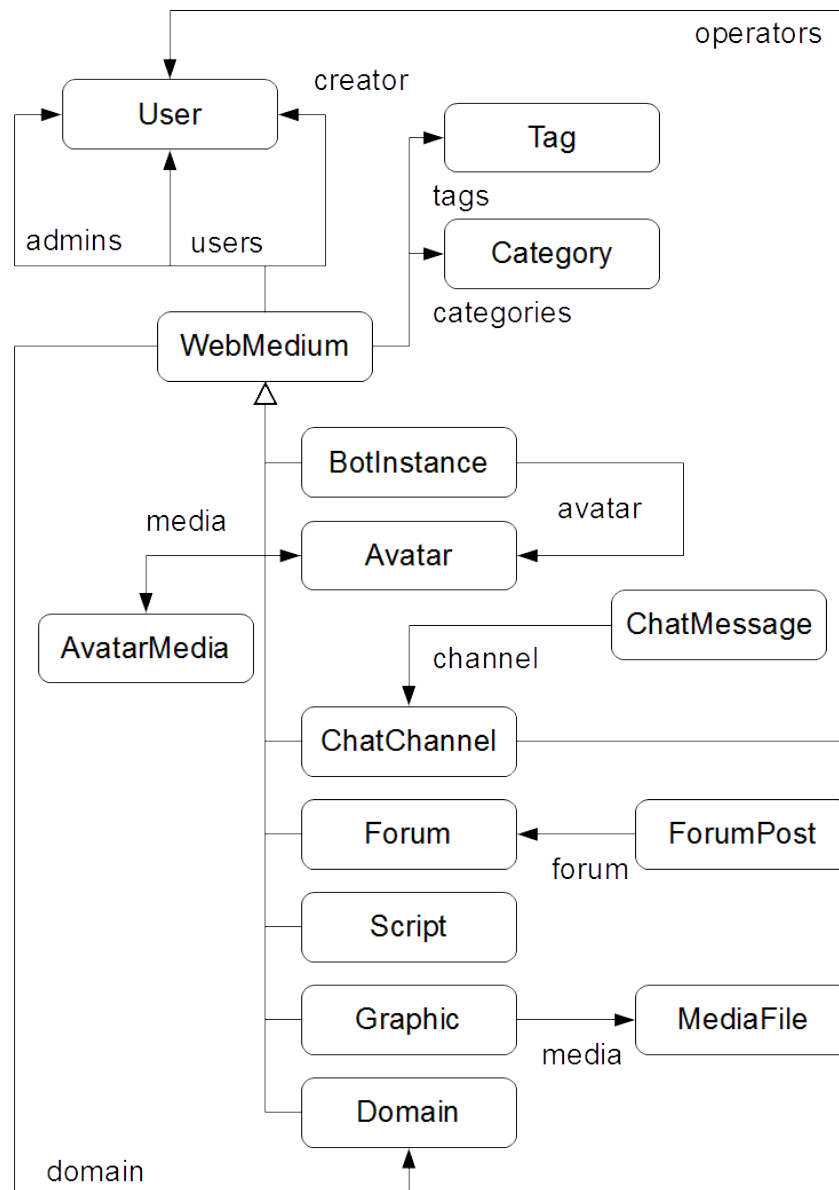
Bot Libre uses the following libraries:

- Bot Libre AI engine – NLP, knowledge, scripting, and social media integration
- Mary TTS – open source Java text to speech engine
- EclipseLink JPA – open source Java persistence framework
- Jersey REST server – open source Java REST service
- Oswap security – open source security library for sanitizing HTML

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Object Model

The Bot Libre object model defines the data objects stored and managed by the platform.



The object model classes include:

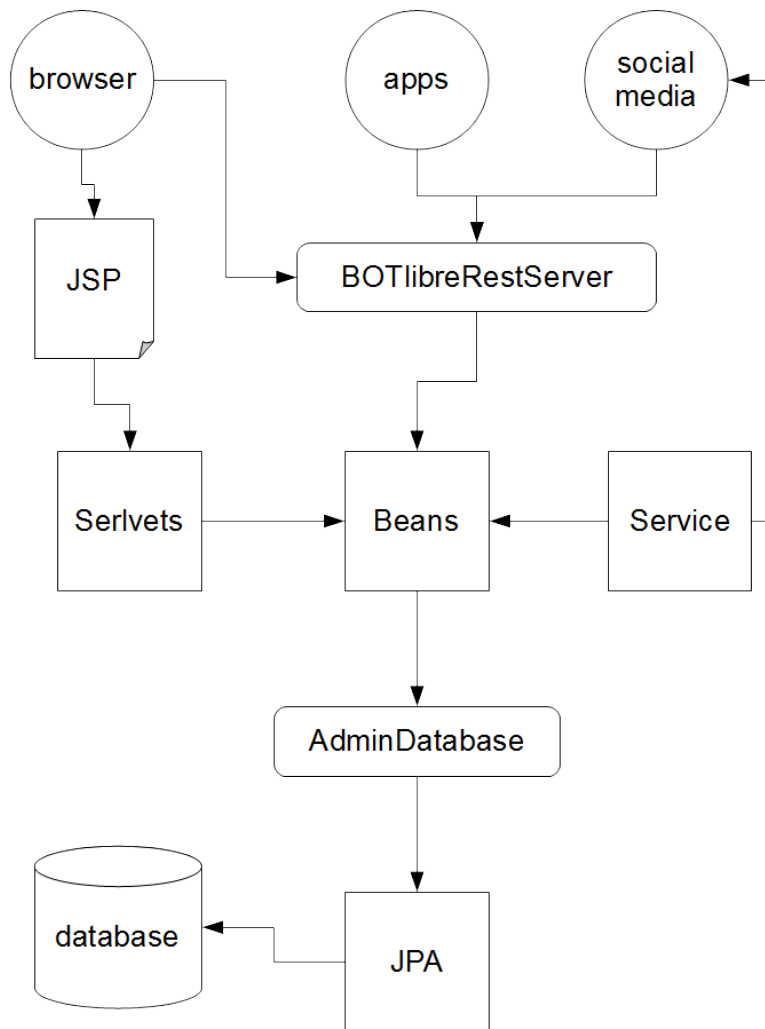
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- WebMedium – abstract hosted object
 - BotInstance – bot meta-data
 - Channel – Live chat meta-data
 - Forum
 - Avatar
 - Graphic – media object
 - Script
 - Domain – work space directory
- ForumPost
- ChatMessage
- Category, Tag
- Media
- Vote

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Process Flow

The process flow starts from a web request, web API, or service poll, and flows through the process classes.



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The process classes include:

- JSP – HTML JSP files that define the web interface.
- Servlets – Java servlet classes that respond to JSP POST and GET calls. Each JSP or service defines its own servlet class.
- BOTlibreRestService – REST service that defines the web API, the web API is used from JavaScript, apps, and social media web hooks.
- Java Beans – The bean classes implement the server functionality for requests. They process the request, access the database, and return data. Each service defines its own bean class.
- AdminDatabase – This class defines all database access. JPA used to access the database.
- Service – The service classes poll social media, email, and perform timer functions at scheduled intervals.