

How to Develop a Simple Java Integration with the IBM Social Business Toolkit SDK Paul Bastide

The IBM Social Business Toolkit SDK is a set of libraries and code samples that you use for connecting to the IBM Social Platform. It covers many products like IBM Connections, IBM Notes/Domino, and IBM Sametime. The libraries include support for many authentication mechanisms, as well as comprehensive wrappers for the REST APIs, and reusable boilerplate code.

The SDK has Java, JavaScript, PHP and Apple iOS® ready helper libraries and code samples. The Java code includes support for Java 2 Enterprise Edition (J2EE) Java Server page (JSP) and Java Servlets, and Java Standalone code. The Java standalone code is great for those who are programming an Eclipse plugin, an AWT widget, a Java Applet, IBM Domino® Agent, and cannot depend on a J2EE Web Container to provide the Servlet Filters and reusable login.

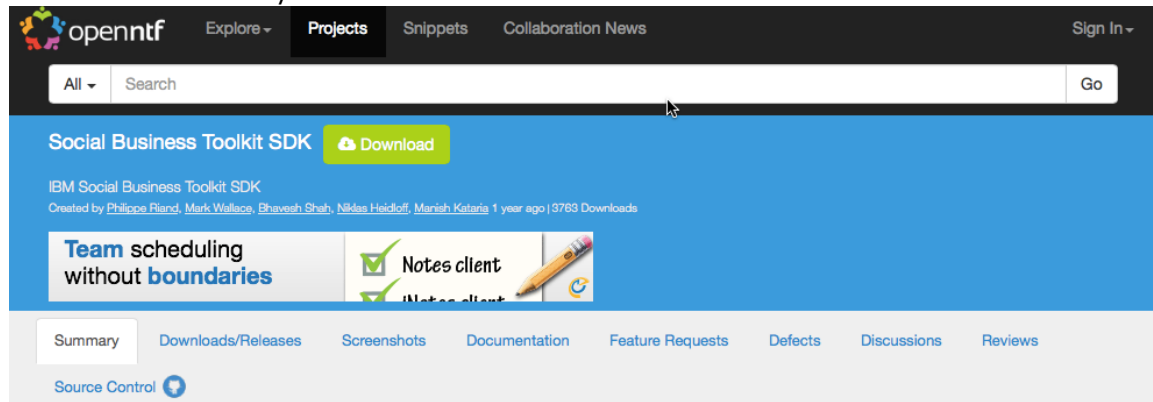
In this blog, I show you how to develop a very simple Java standalone application, which can be developed in any Java supporting environment. I prefer to use Eclipse.

Steps

Open a Browser

Navigate to <http://ibmsbt.openntf.org>

Click on Downloads/Releases



The screenshot shows the openntf website interface. At the top, there is a navigation bar with the 'openntf' logo and menu items: 'Explore', 'Projects', 'Snippets', and 'Collaboration News'. A 'Sign In' link is on the right. Below the navigation is a search bar with a dropdown menu set to 'All' and a 'Go' button. The main content area features a blue header for the 'Social Business Toolkit SDK' project, with a green 'Download' button. Below this, it states 'IBM Social Business Toolkit SDK' and lists creators: Philippe Riland, Mark Wallace, Bhavesh Shah, Niklas Heidloff, and Marish Kataria, along with the date '1 year ago' and '13763 Downloads'. There are also promotional banners for 'Team scheduling without boundaries' and 'Notes client'. At the bottom, there is a navigation menu with tabs: 'Summary', 'Downloads/Releases', 'Screenshots', 'Documentation', 'Feature Requests', 'Defects', 'Discussions', and 'Reviews'. A 'Source Control' link with a GitHub icon is also present.

Click Link under Downloads

2 How to Develop a Simple Java Integration with the IBM Social Business Toolkit SDK

The screenshot shows the openntf project page for the Social Business Toolkit SDK. The page includes a navigation bar with 'openntf', 'Explore', 'Projects', 'Snippets', and 'Collaboration News'. A search bar is present. The main content area features a 'Download' button and a list of contributors: Philippe Riand, Mark Wallace, Bhavesh Shah, Niklas Heidloff, and Manish Kataria. Below this, there are two featured items: 'Team scheduling without boundaries' and 'Browser'. The page also has tabs for 'Summary', 'Downloads/Releases', 'Screenshots', 'Documentation', 'Feature Requests', 'Defects', 'Discussions', and 'Reviews'. A 'Source Control' link is also visible.

Date	Name	Downloads
Jan 25, 2014	Social Business Toolkit SDK - 20140125	17
Jan 21, 2014	Social Business Toolkit SDK - 20140121	34
Dec 18, 2013	Social Business Toolkit SDK - 20131218	201
Dec 17, 2013	Social Business Toolkit SDK - 20131217	15

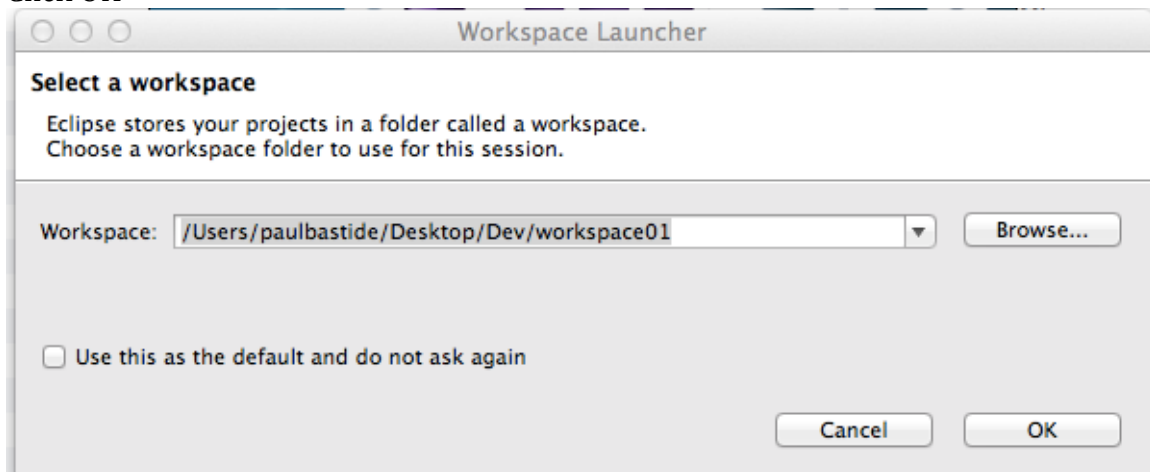
Social Business Toolkit SDK - 20140125			
Release Name	Social Business Toolkit SDK - 20140125	Released On	Jan 25, 2014
License	Apache License	Released By	Mark Wallace
Status	Released	Downloads	17
Cleared	Yes		
Download(s)	sbtsdk-1.0.0.20140125-		

Extract / Expand sbtsdk-1.0.0.20140125-1133.zip to your preferred Folder. 7-Zip is a great tool to use.

Open Eclipse

Enter a Workspace Location (e.g. /Users/paulbastide/Desktop/Dev/workspace01)

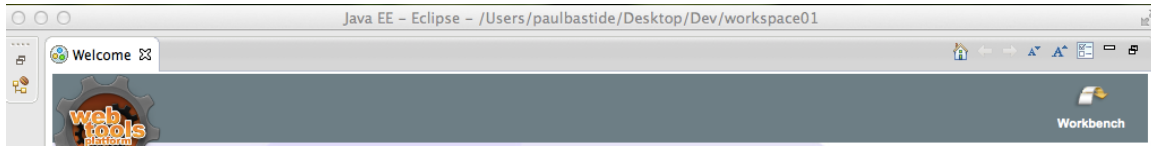
Click OK



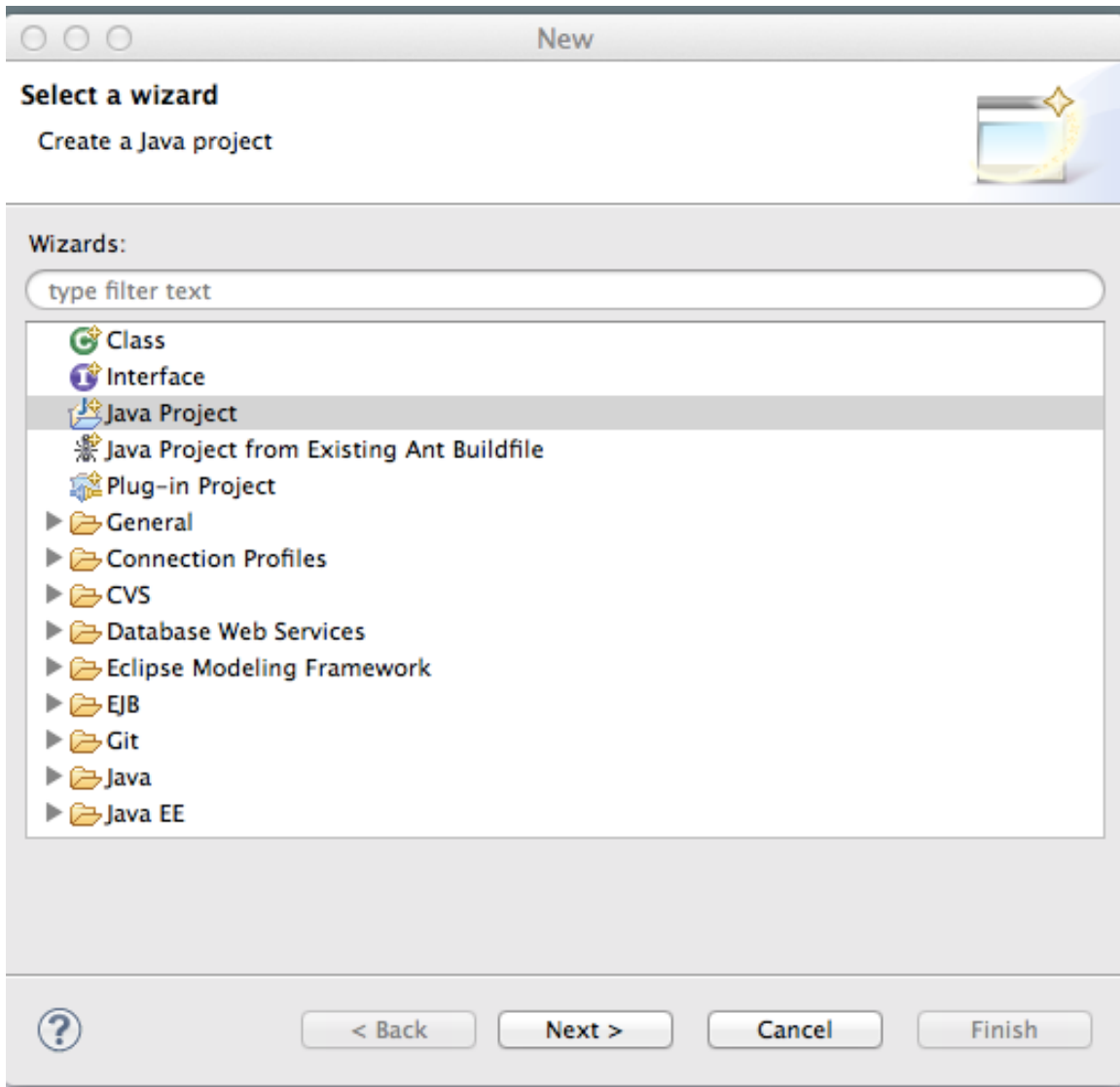
Click Workbench (or Click the ESC Key)

How to Develop a Simple Java Integration with the IBM Social Business Toolkit SDK

Paul Bastide



Click File > New > Other
Select Java Project
Click Next



Enter Project Name (e.g. sbt.sample.standalone.java)
Click Next

4 How to Develop a Simple Java Integration with the IBM Social Business Toolkit SDK

Create a Java Project
Create a Java project in the workspace or in an external location.

Project name:

Use default location

Location:

JRE

Use an execution environment JRE:

Use a project specific JRE:

Use default JRE (currently 'Java SE 6 [1.6.0_65-b14-462]') [Configure JREs...](#)

Project layout

Use project folder as root for sources and class files

Create separate folders for sources and class files [Configure default...](#)

Working sets

Add project to working sets

Working sets:

Click Libraries

Click External Jars

Navigate to sbtsdk/source/com.ibm.sbt.libs.java/lib

Add these Jars

apache-mime4j-0.6.jar

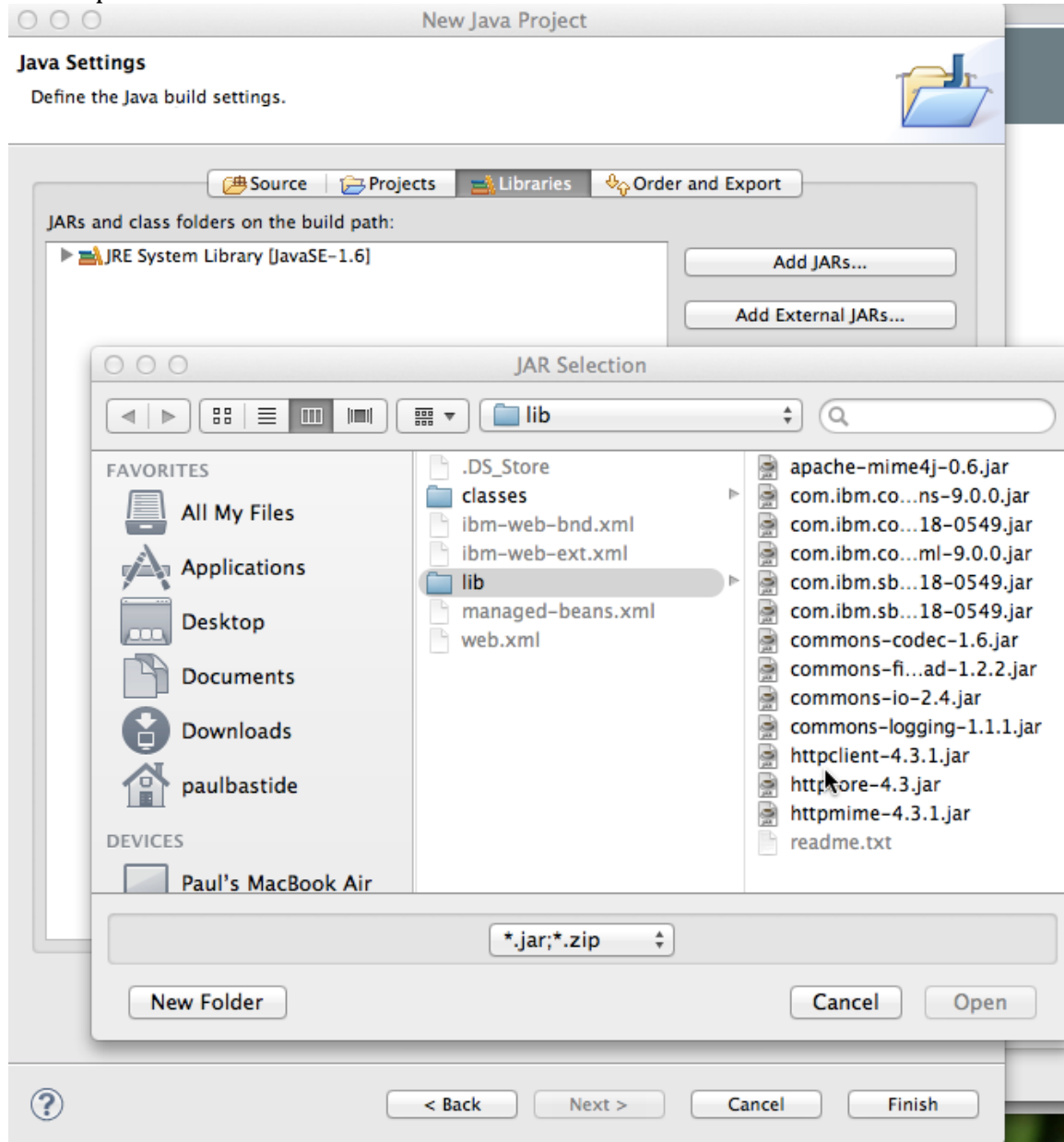
commons-codec-1.6.jar

commons-fileupload-1.2.2.jar

How to Develop a Simple Java Integration with the IBM Social Business Toolkit SDK Paul Bastide

commons-io-2.4.jar
httpclient-4.3.1.jar
httpcore-4.3.jar
httpmime-4.3.1.jar

Click Open



Click Add External JARs again

Open sbtsdk/redis/jar

Select the JAR files

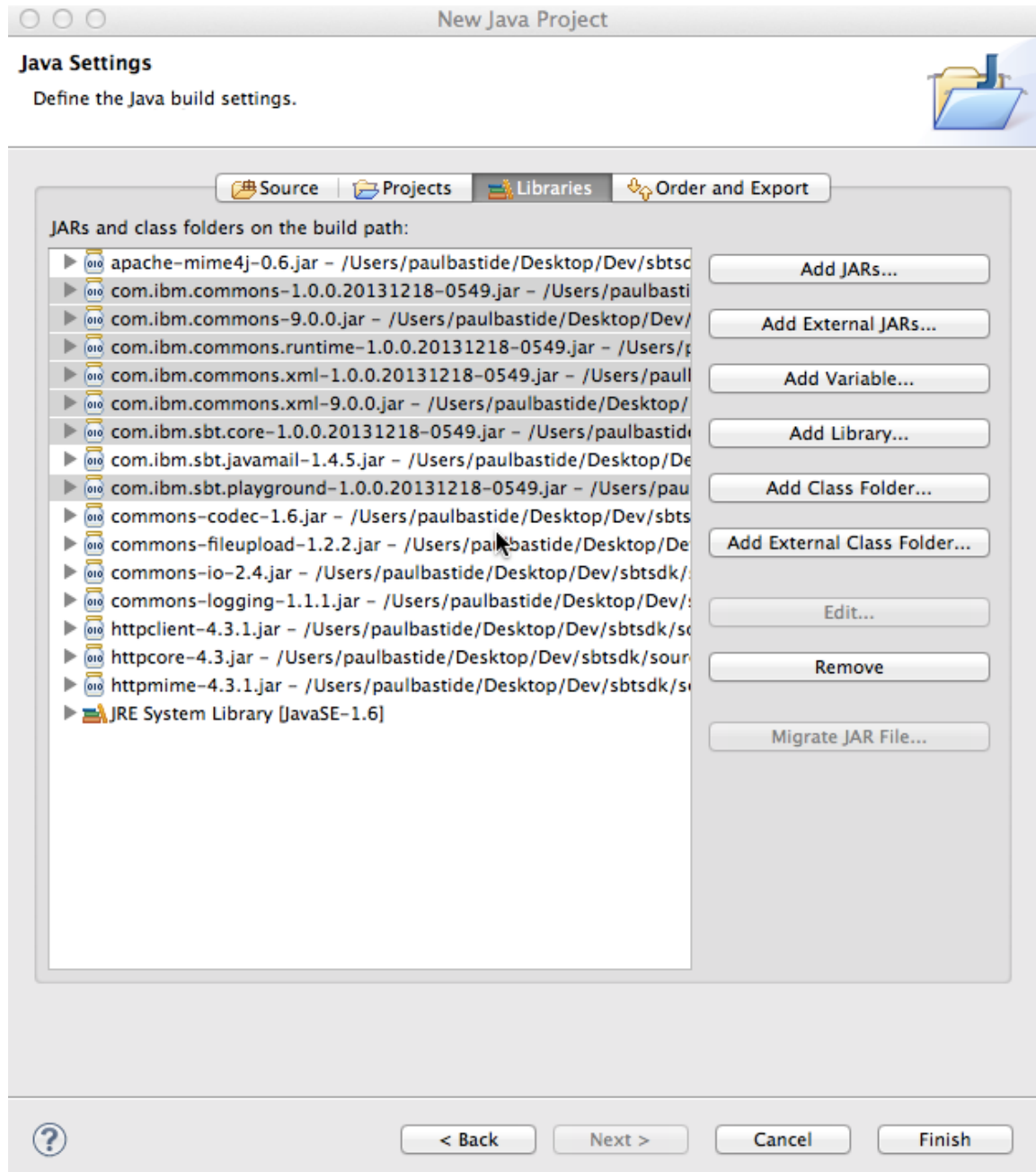
com.ibm.commons-1.0.0.20131218-0549.jar
com.ibm.commons-9.0.0.jar
com.ibm.commons.runtime-1.0.0.20131218-0549.jar
com.ibm.commons.xml-1.0.0.20131218-0549.jar

6 How to Develop a Simple Java Integration with the IBM Social Business Toolkit SDK

com.ibm.commons.xml-9.0.0.jar
com.ibm.sbt.core-1.0.0.20131218-0549.jar

Click Open

Click Finish



If prompted to Switch Perspectives, Click Yes

How to Develop a Simple Java Integration with the IBM Social Business Toolkit SDK

Paul Bastide



Expand the Project - `sbt.sample.standalone.java/src`
Right Click `src`
Expand New > Class

Enter a Name (e.g. `StandaloneDemo`)
Select method stub `public void static`
Click Finish

8 How to Develop a Simple Java Integration with the IBM Social Business Toolkit SDK

Java Class
Create a new Java class.

Source folder:

Package:

Enclosing type:

Name:

Modifiers: public default private protected
 abstract final static

Superclass:

Interfaces:

Which method stubs would you like to create?

public static void main(String[] args)
 Constructors from superclass
 Inherited abstract methods

Do you want to add comments? (Configure templates and default value [here](#))
 Generate comments

Now, I am going to show you how to code the boilerplate.

Let's add a simple function to this App.

Navigate to the end of the Class } and paste at the end

This code is accessing the boilerplate code, which the code is using to access the backend service using the Authorization Header in the HTTP request.

How to Develop a Simple Java Integration with the IBM Social Business Toolkit SDK

Paul Bastide

```
/**
 * creates a new Basic Endpoint to connect to Connections
 * @param url
 * @param user
 * @param password
 * @return
 */
private BasicEndpoint createEndpoint(String url, String
user, String password) {
    BasicEndpoint endpoint = new ConnectionsBasicEndpoint();
    endpoint.setUrl(url);
    endpoint.setUser(user);
    endpoint.setPassword(password);
    endpoint.setForceTrustSSLCertificate(true);
    return endpoint;
}
```

Next, you want to use the endpoint as part of the Class.

Enter

```
BasicEndpoint endpoint;
```

```
/**
 * creates the basicendpoint wrapped in the demo class
 * @param url
 * @param user
 * @param password
 */
StandaloneDemo(String url, String user,
                String password){
    endpoint = createEndpoint(url,user,password);
}
```

I added a getter for the endpoint, so it can be reused in other classes.

```
/**
 * returns the endpoint
 * @return
 */
public BasicEndpoint getEndpoint(){
    return endpoint;
}
```

You can now add the code to access the Forums you have access to.

```
String url = args[0];
String user = args[1];
```

```
String password = args[2];

StandaloneDemo demo = new StandaloneDemo(url, user,
password);
ForumService svc = new ForumService(demo.endpoint);
try {
    ForumList forumList = svc.getAllForums();
    for(BaseForumEntity forumEntity : forumList){
        Forum forum = (Forum) forumEntity;
        System.out.println("+F: " +
forum.getTitle());
        TopicList topics = forum.getTopics();

        for(BaseForumEntity topicEntity : topics){
            ForumTopic topic = (ForumTopic)
topicEntity;
            System.out.println("-- " +
topic.getTitle());
        }
    }
} catch (ForumServiceException e) {
    e.printStackTrace();
}
```

Click File > Save

Click Run

Click Run Configuration

Click on Arguments

Enter the URL for your connections server as the first argument

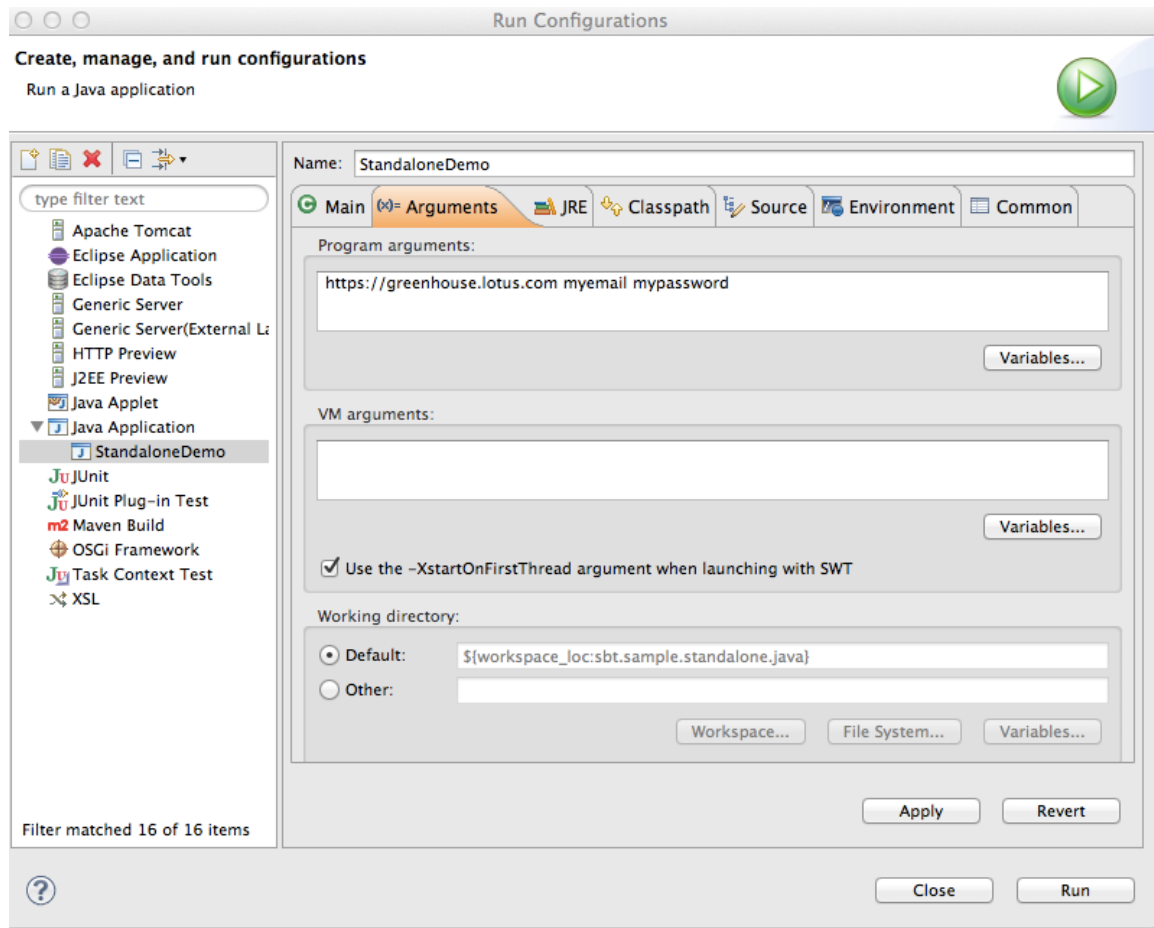
e.g. <https://greenhouse.lotus.com:443>

Enter your login id and login password

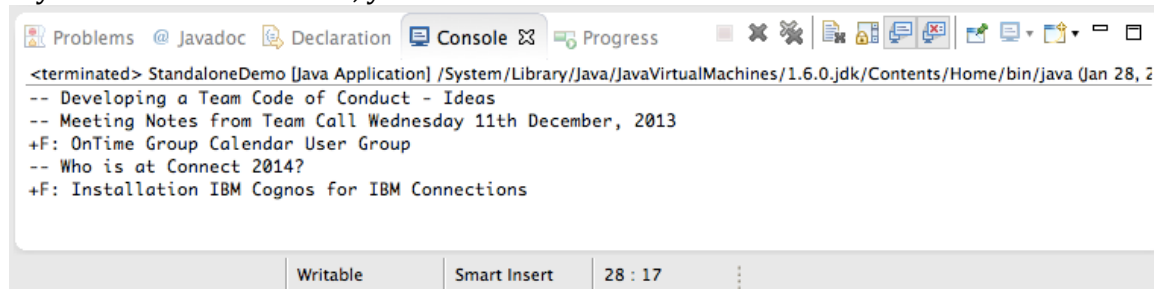
Click Run

How to Develop a Simple Java Integration with the IBM Social Business Toolkit SDK

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If you look in the Console, you'll see the Results.



The Java File is attached.

You can use this approach with your development and application to access the Social Business platform, and you can use this to access any web resource from your application.

Some other samples are

<https://github.com/OpenNTF/SocialSDK/blob/master/samples/java/sbt.sample.app/src/com/ibm/sbt/sample/app/BlogServiceApp.java>

- 1 How to Develop a Simple Java Integration with the IBM Social Business
- 2 Toolkit SDK

Summary

For those who wish to get help with their Java integration with the SDK, you may feel free to leave a comment on the blog, or use the StackOverflow Tag [#ibmsbt](#).

Referenced links are:

StackOverflow Channel #ibmsbt	http://stackoverflow.com/questions/tagged/ibmsbt
IBM Social Business Toolkit Homepage	http://ibmsbt.openntf.org
IBM developerWorks Social	http://www.ibmdev.net/social
IBM Social Business Toolkit on GitHub	https://github.com/OpenNTF/SocialSDK