

# Build Source Code on Windows

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  - Install the Java Development Kit (JDK)
  - Install MySQL.
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  - Install Git
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## 1. Install Prerequisites

- **Install the Java Development Kit (JDK)**
  - Download the **Java Development Kit (JDK) 8** from <http://www.oracle.com/technetwork/java/javase/downloads/index.html>.
  - Follow the installation instructions at [https://docs.oracle.com/javase/8/docs/technotes/guides/install/windows\\_jdk\\_install.html](https://docs.oracle.com/javase/8/docs/technotes/guides/install/windows_jdk_install.html)
  - Set JAVA\_HOME:
    - For Windows 8, go to **Control Panel > System > Advanced System Settings**.
    - For Windows 10, go to **Control Panel > System and Security > System > Advanced System Settings**.
    - Click the **Environment Variables** button.
    - Under **System Variables**, click **New**.
    - In the **Variable Name** field, enter **JAVA\_HOME**
    - In the **Variable Value** field, enter the JDK installation path, e.g: **C:\Program Files\Java\jdk1.8.0\_77**
- **Install MySQL.**
  - Download MySQL Server 5.5 or above from <http://dev.mysql.com/downloads/mysql/>
  - Follow the installation instructions at <http://dev.mysql.com/doc/en/windows-installation.html>
- **Install Apache Maven**
  - Download Apache Maven 2.2.1 or above from <https://maven.apache.org/download.cgi>
  - Follow the installation instructions at <https://maven.apache.org/install.html>
  - Please ensure that the "mvn" command can be executed from the command line by adding it to the PATH:
    - In Windows 8 go to **Control Panel > System > Advanced System Settings**.
    - For Windows 10, go to **Control Panel > System and Security > System > Advanced System Settings**.
    - Click the **Environment Variables** button.
    - Under **System Variables**, select the variable Path and click **Edit**.
    - In the **Variable Value** field, append the Maven path (e.g. C:\Program Files\apache-maven-3.3.9\bin) to the current path
- **Install Git**
  - Download and install the Git client from <https://git-scm.com/download/win>

## 2. Install 3rd Party Libraries

- Download the 3rd party libraries ZIP from <http://dev.joget.org/community/download/attachments/19104566/install-libraries.zip>
- Unzip the file
- Open a Command Prompt to execute the install\_win.bat file

```
cd install-libraries
install_win.bat
```



Depending on your version of Apache Maven, you might get an error "BUILD FAILED" containing the message: Cannot run program "mvn.cmd"

In this case, edit the file install-libraries\lib\setup-maven\_win.xml and replace all occurrences of "mvn.cmd" with "mvn.bat"

### 3. Obtain Source Code

- Open a Git CMD (Git Bash) window and execute the following:

```
mkdir joget_src
cd joget_src
git clone https://github.com/jogetworkflow/jw-community.git --branch 7.0-SNAPSHOT --depth 1
```

### 4. Configure Datasource for Test Case

- Joget contains unit test cases that requires access to a **running MySQL database**.
- Open a Command Prompt, and create a MySQL database with the SQL file in `joget_src/jw-community/wflow-install/src/main/resources/data/jwdb-empty.sql`

```
mysql -uroot -p
create database jwdb;
exit
mysql -uroot -p jwdb < joget_src/jw-community/wflow-install/src/main/resources/data/jwdb-empty.sql
```

- Download the sample configuration files [wflow.zip](#) and unzip it in your **user home folder** e.g. `C:\Users\yourusername\`
- Edit the **wflowapp\_datasource-default.properties** file e.g. `C:\Users\yourusername\wflow\app_datasource-default.properties` and ensure that the configuration (e.g. MySQL username and password) is correct

```
workflowDriver=com.mysql.jdbc.Driver
workflowUrl=jdbc:mysql://localhost:3306/jwdb?characterEncoding=UTF-8
workflowUser=root
profileName=
workflowPassword=root
```



To pass unit tests which require a valid datasource, it is important to ensure that:

1. the **wflow** folder is located in the correct path inside your user home folder, e.g. `C:\Users\yourusername\wflow`
2. the MySQL configuration settings in **wflowapp\_datasource-default.properties** are correct

### 5. Build Project

- In a Command Prompt, browse to the **jw-community\wflow-app** folder and execute the Maven install command

```
cd joget_src\jw-community\wflow-app\
mvn clean install
```