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MEDLOG MANUAL

REVISION HISTORY

Revision #	Author	Revision Date	Comments
1.0	John Allison, Brian Gander, Jesse Gardner, Dan Kauffman, Hong Nguyen	11/07/2016	Initial Draft
1.1	John Allison	12/09/2016	Mobile App Quick Start basics and Requirements added, minor addition to Web App Quick Start

CONTENTS

OVERVIEW

MedLog is an application (web/mobile) that focuses on patients as the end-user, allowing them to log and manage health-related information in order to better maintain personal livelihood. MedLog enables the user to log information on the go as necessary and removes the burden of having to organize and consolidate these different types of records while also allowing logged information to be easily sent to a healthcare provider as the need arises.

Logs are separated between four core components/categories of information archiving — personal diary/notes, medication/supplementation, dietary restriction and healthcare provider contact information. Logs will have the capability of being forwarded to a specific healthcare provider.

By giving patients the ability to create and manage health-related logs, not only are they able to more accurately keep tabs on lifestyle by developing a heightened sense of personal awareness, but also develop and maintain more improved interactions with their healthcare providers, reinforcing follow-up treatment.

DOCUMENT OVERVIEW

This document was developed to aid users and administrators/maintainers in using and interacting with MedLog. It has been separated into two sections: **User Manual** and **Maintainer Manual**, one directed towards users and information on general usage, the other directed at MedLog administrators, maintainers and developers.

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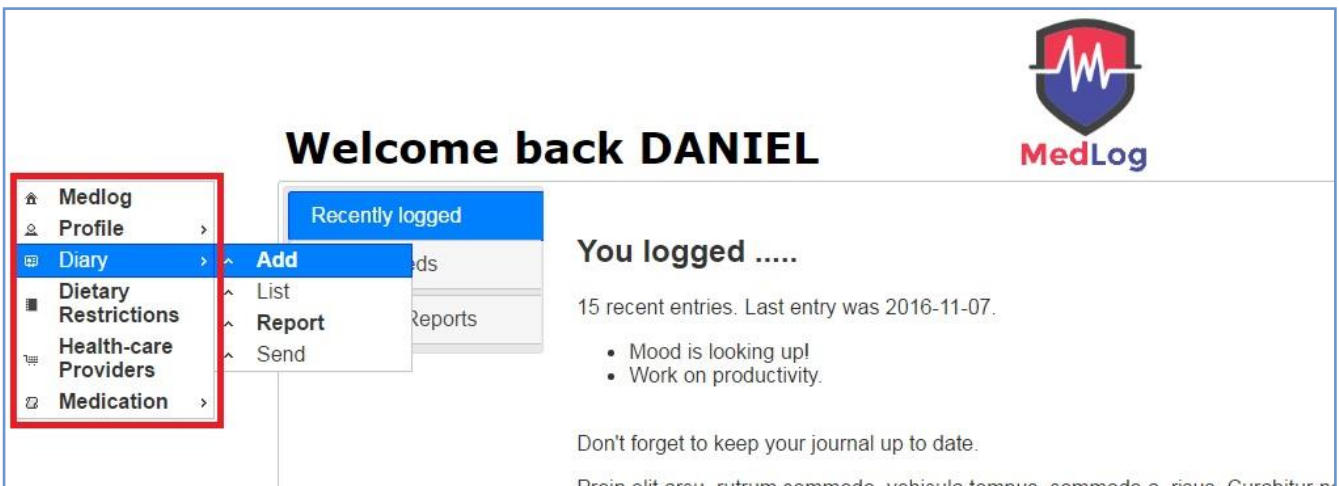
USER MANUAL

QUICK START GUIDE (WEB)

Web-application URL: **www.niftybull.com/MedLogRS**

To use MedLog, the user must first **create an account** using the **registration** page (accessed from the **home/login** page linked above or accessed directly at **www.niftybull.com/MedLogRS/User.html**)

Upon signing in, the user will be directed to a page similar to the one **pictured below**. To begin logging medical information, the user will use the **menu on the left** (highlighted/enclosed in **red**) to select the category for which they would like to insert/update an entry.

Use the **Add** function to add a new entry and **List** to view logged entries as well as edit them.
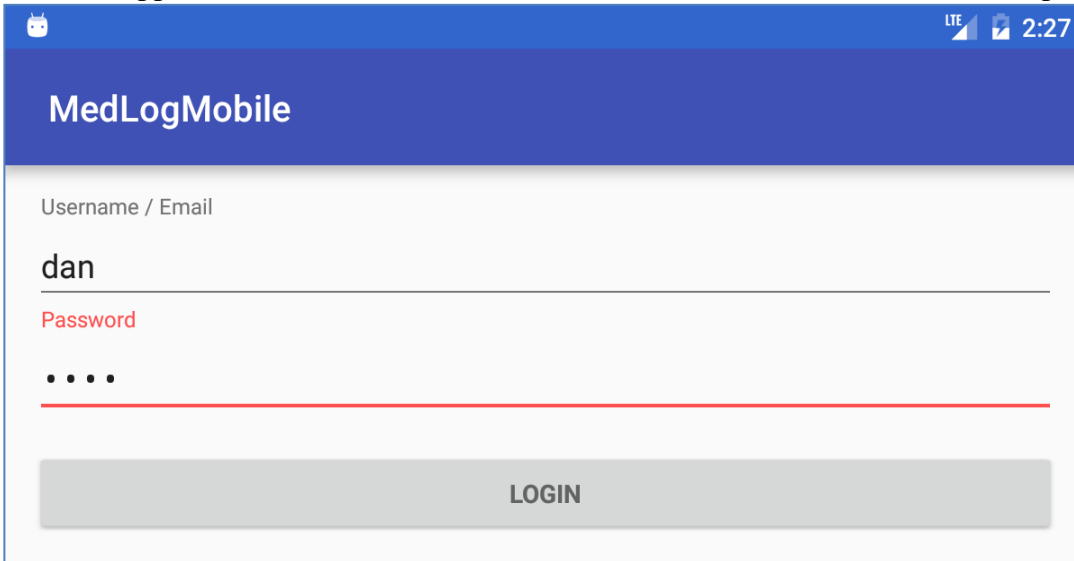
On the **List** page (pictured below), click the icon/button in the left-most column (**Edit**) for the desired row in order to view *all* data logged for that entry as well as update/edit the entry.

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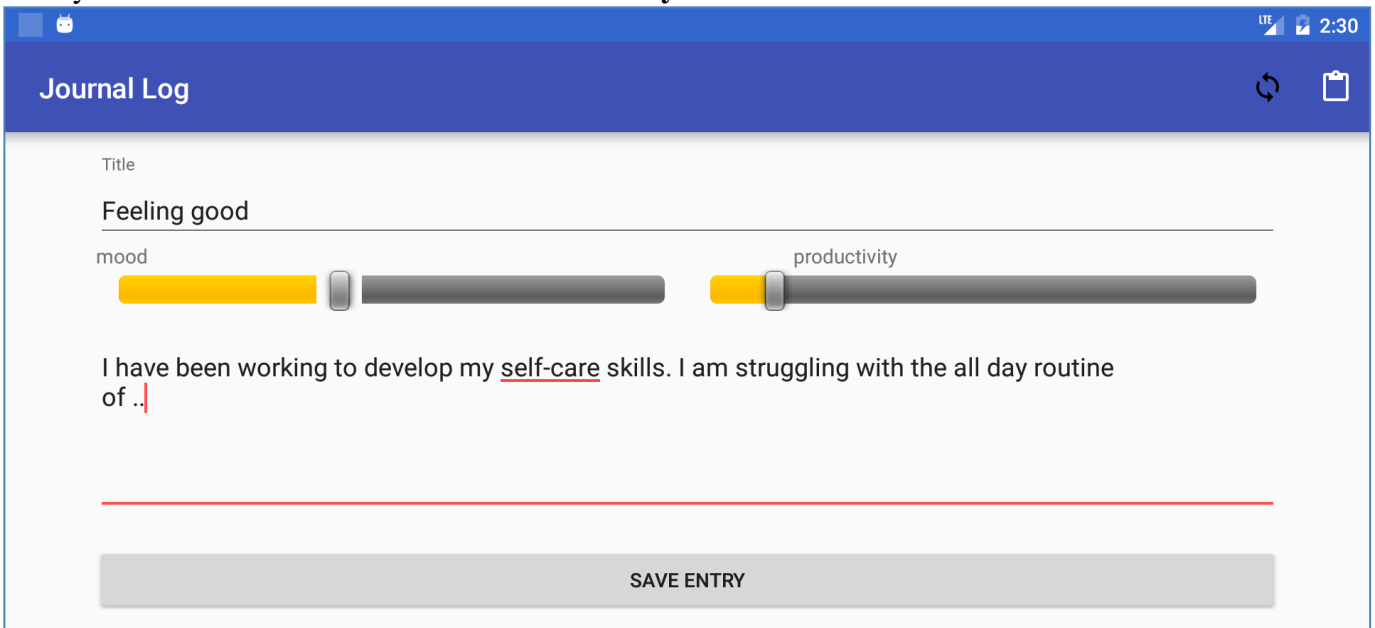# QUICK-START GUIDE (MOBI   LE)

Once the application has been installed and launched from the device, the user is prompted to login.

The user is able to log entries using the device whether online or offline, as the data is initially saved locally on the device when the user hits '**Save Entry**'.

Use the '**Sync**' button (highlighted in red below) after saving entries to attempt to add the new data to the MedLog database. If the device is properly connected to the internet, the data will be inserted into the database and can now be accessed from the web application as well.

INSTALLATION & REQUIREMENTS

The web-app for MedLog requires no installation from the user, so long as the user has access to a web browser (Chrome, Firefox, Internet Explorer/Edge, etc.) and has an internet connection.

The mobile app for Android can be found here: https://github.com/tue65786/MedLog/tree/master/release
System Requirements:
2MB disk space
Minimum SDK: KitKat 19
Recommended: Android 5.1 Lollipop (API22)

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SECURITY & PASSWORDS

When filling out the registration form, each user will create a desired (unique) username and password which will be required to login and access a personal account.

DATABASE

User's interaction with the database will be exclusively through the use of the application (submitting forms in the various categories/sections provided)(also updating/deleting)

For more detailed information on the database as well as its management and maintenance, please see **Maintainer's Manual** portion of this document further on.

BACKUP/RECOVERY

As discussed above, storage of each user's information is handled using the application database. However, please be aware that if the browser is closed or power is lost to the machine before a form is submitted, any information which may have been input into the form fields will be lost.

SUPPORT

If you require additional support, please contact a MedLog support expert at one of the email addresses listed below.

tuc59322@temple.edu
tuf29482@temple.edu
tue65786@temple.edu
htn17@temple.edu

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MAINTAINER MANUAL

DATABASE

Database management should be done using the Microsoft software **SQL Server Management Studio**,

"an integrated environment for accessing, configuring, managing, administering, and developing all components of SQL Server. SSMS combines a broad group of graphical tools with a number of rich script editors to provide developers and administrators of all skill levels access to SQL Server."
https://msdn.microsoft.com/en-us/library/mt238290.aspx

Please contact project leader for access credentials (server name, login, password).

To create a MedLog on your local SQL Server instance, open the following script, to generate the MedLog database structure.
https://github.com/tue65786/MedLog/blob/master/CreateMedlogSQL.sql

NETBEANS & TOMCAT INSTALLATION

It is highly recommended that before trying to install the project, the user download and install the most up to date version of the full NetBeans bundle (link and image provided below) to ensure that they have all necessary components (Apache Tomcat required)

https://netbeans.org/downloads/
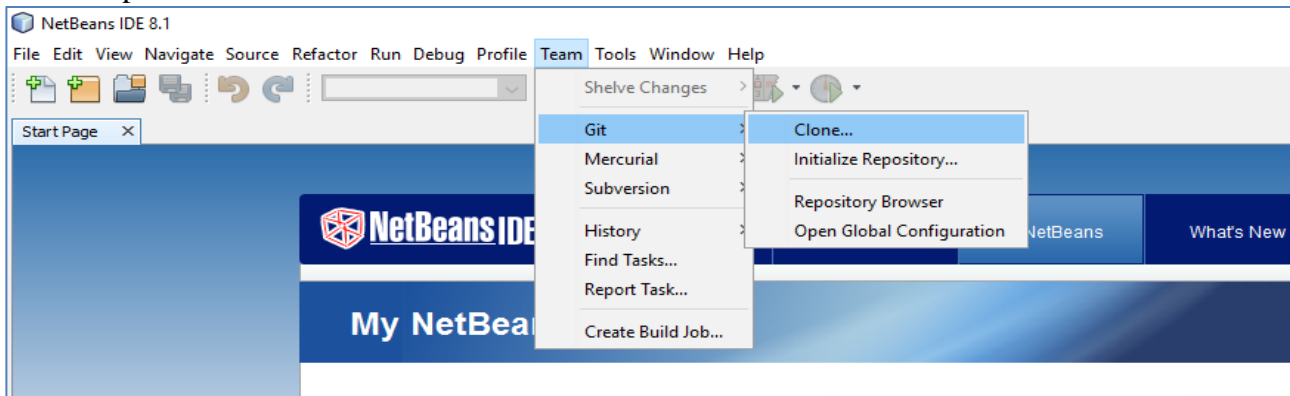
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PROJECT INSTALLATION

There are two different methods to obtain the content of MedLog project.

Method 1: Pull repository from Github in Netbeans
Step 1:
      Open Netbeans. Under Team → Git → Clone…

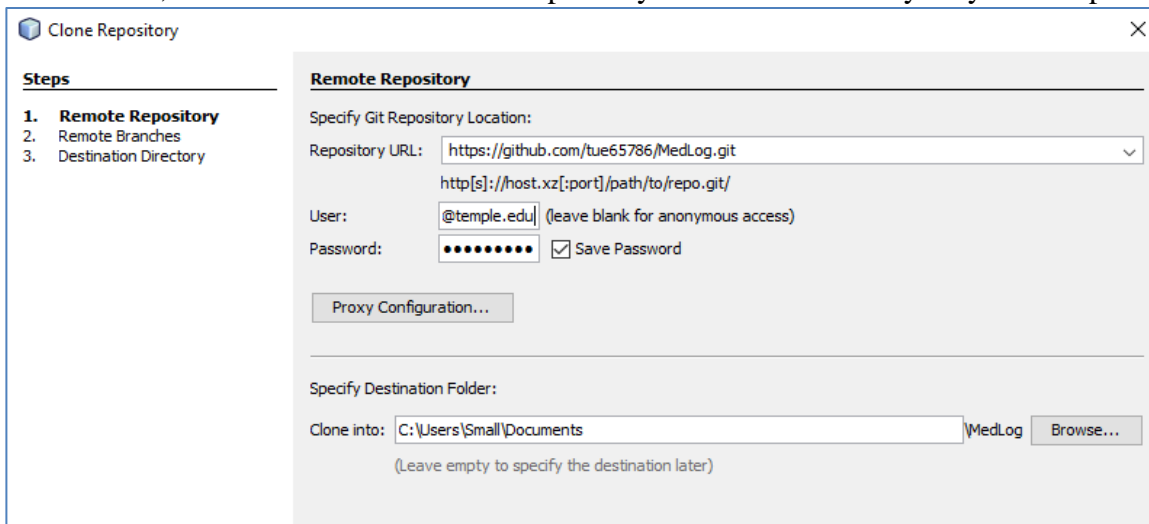

Step 2:
      The repository location is: https://github.com/tue65786/MedLog.git .
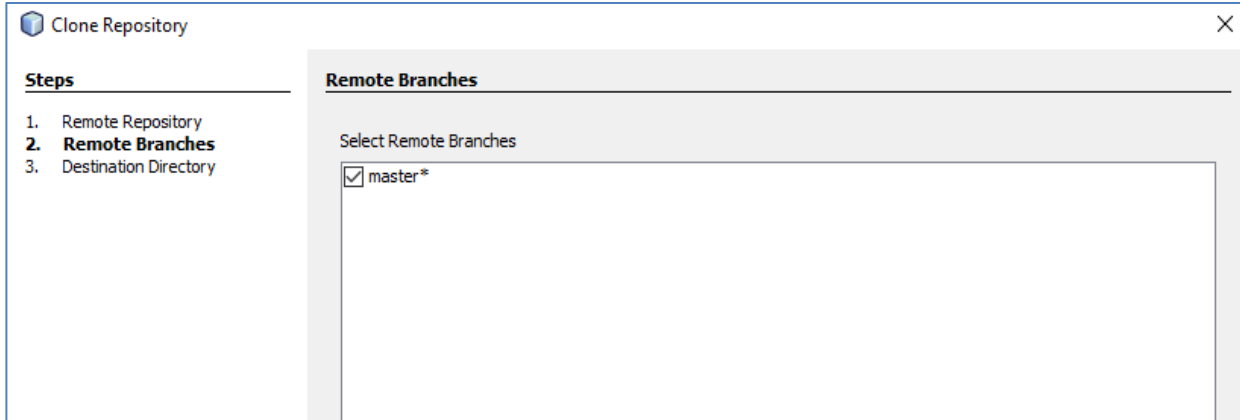   If you would like to, enter your GitHub information for User and Password. It will still work if left blank.
      Also, choose the location for the repository to be located locally on your computer. Click Next.

Step 3:
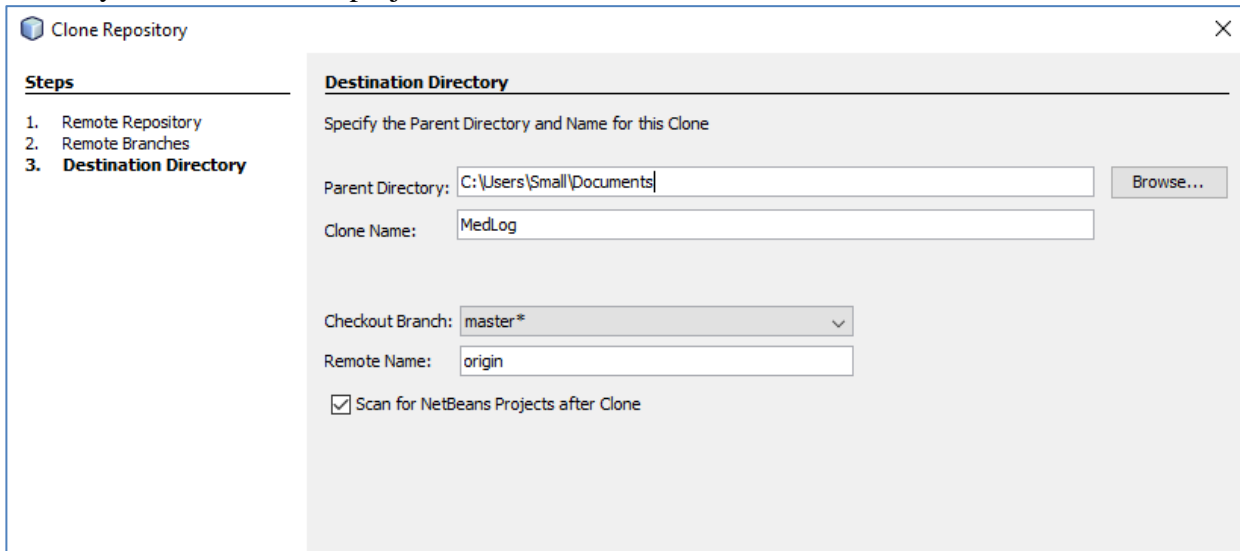
The branch being cloned is the master branch. It should be checked. Click Next again.

Step 4:

It is suggested that the Clone Name be changed to differentiate between the cloned project, and your version of the project. Otherwise, it can be left as is. Click Finish.

Step 5:

Once clone is successful, this window will appear. Click Open Project.
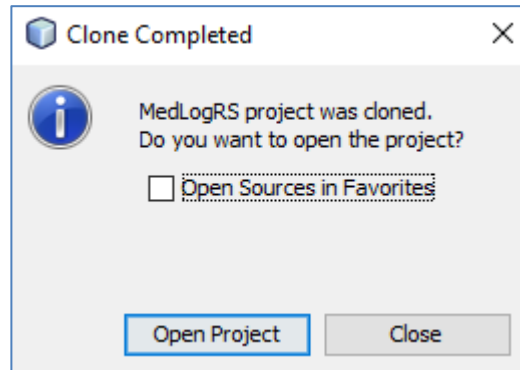
Congratulations. You have successfully cloned the MedLog repository!

Method 2: Downloads zip file from GitHub

Step 1: Open the browser of your choice. Go to **https://github.com/tue65786/MedLog/tree/master**.
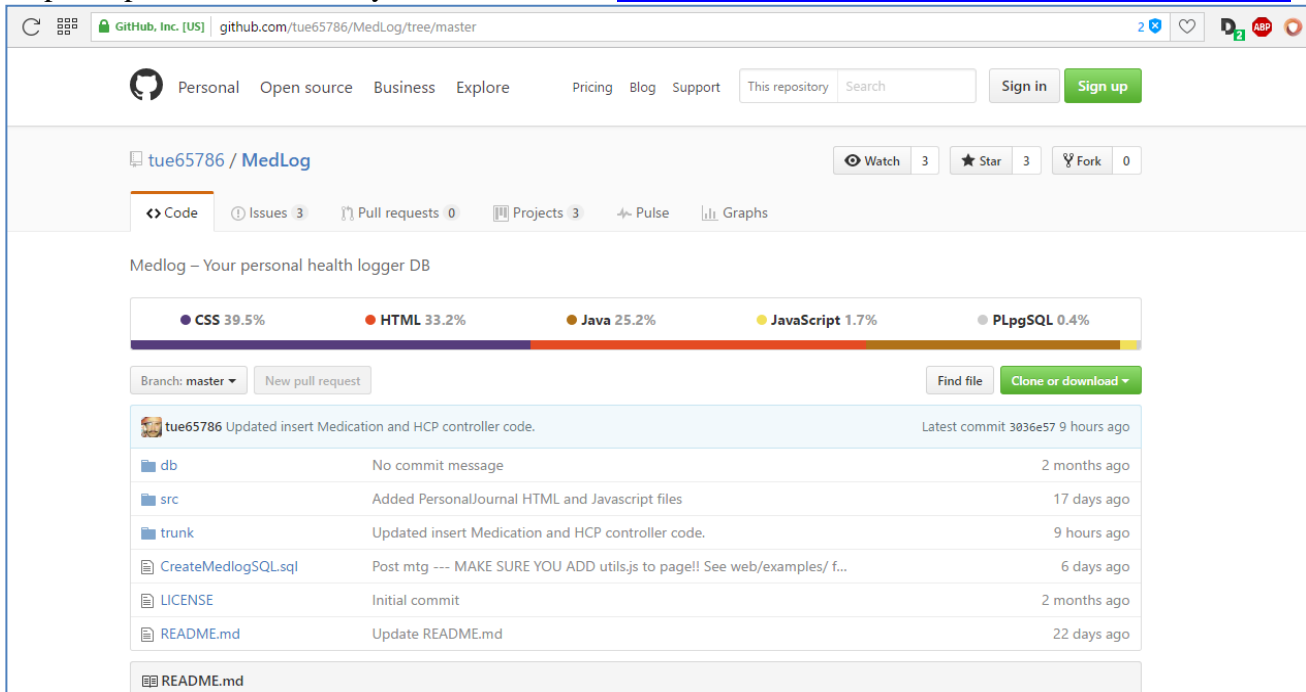
Step 2:

On the left side, there is a Clone or Download button. Click on it and download the ZIP repository.
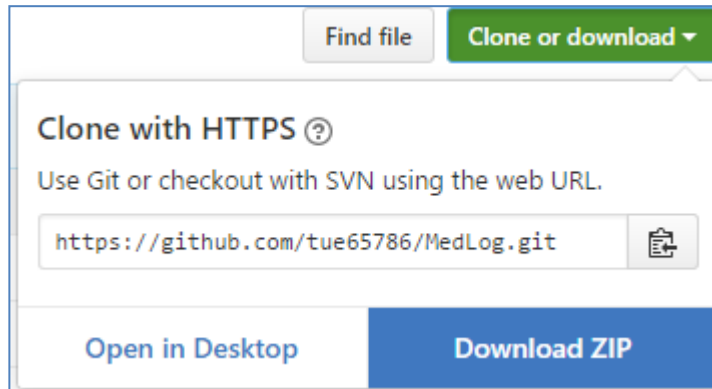
Step 3:
> Locate the ZIP file and unzip the file. After unzipping, you should get the repository. From here, you may utilize the project in your desired IDE. NetBeans is highly suggested.

CONFIGURATION

SQL Server

Step 1:
> Using TSQL, create a new query tab in IDE (SSMS)

Step 2:
> Enable the **sa** login (per [MSDN](#) instructions)

```
ALTER LOGIN sa ENABLE ;
GO
ALTER LOGIN sa WITH PASSWORD = '<enterStrongPasswordHere>' ;
GO
```

Step 3:

Update database.properties file with new login information in Web Application source code (or compiled WAR code)

a) Change IP to localhost (or name of your server)

b) Change dbUser to **sa** or specififed user

c) Update Password

```
# Server IP
dbServer=108.161.128.42
#
# Database name
dbName=MedLog
#
# Schema
dbSchema=dbo
#
# User
dbUser=MedLog
#
# Password
dbPassword= ***********|
```

Web Server

Pre-requisite: Install Java SDK "JDK" from Oracle's website:

Java SE Downloads

Java Platform (JDK) 8u111 / 8u112   NetBeans with JDK 8

Java Platform, Standard Edition

Java SE 8u111 / 8u112
Java SE 8u111 includes important security fixes. Oracle strongly recommends that all Java SE 8 users upgrade to this release. Java SE 8u112 is a patch-set update, including all of 8u111 plus additional features (described in the release notes).
Learn more ▸

Important planned change for MD5-signed JARs
The next scheduled JRE update, planned for January 2017 will treat JARs signed with MD5 as unsigned. Learn more and view testing instructions.
For more information on cryptographic algorithm support, please check the JRE and JDK Crypto Roadmap.

- Installation Instructions
- Release Notes

JDK
DOWNLOAD ⬇

Step 1:

Download stand-alone web-server from Apache's site - select the Windows service option to allow web server to run on its own, or choose the OS-compatible version

Step 2:

Run the installer

Step 3:

Open Tomcat manager application in your web-browser. (ex: http://localhost:8080/manager)

Step 4:

Click to add the MedLog WAR file (compile the WAR file from your IDE, or use the precompiled WAR from the GitHub repository)

Step 5:
Done!

APPLICATION FUNCTIONS

HTTP requests

http://[yourhost].com/api/[fields]

API Structure and Fields

Field name	Field desc.	Scope		
res	resource	entity		
fn	function	crud+		

Structure Entity Queries

Name	Value	Function (fn)					
		add	update	find	findByUser	findByKeyword	assign/unassign
diary	d	Yes	Yes	Yes	Yes	Yes	No
patient	p	Yes	Yes	Yes	Yes	No	Yes
medication	m	No	No	Yes	Yes	Yes	Yes
sig	sig	No	No	Yes	Yes	Yes	No
state	s	No	No	Yes	Yes	Yes	No
pharm	ph	Yes	Yes	Yes	Yes	Yes	No
dietary	r	Yes	Yes	Yes	Yes	Yes	Yes

MedLog sync functionality allows for bulk import and export of system data - specs for this API forthcoming

BACKUP/RECOVERY

SQL Server Management Studio provides two options:
1. Backup – Generates a database backup file
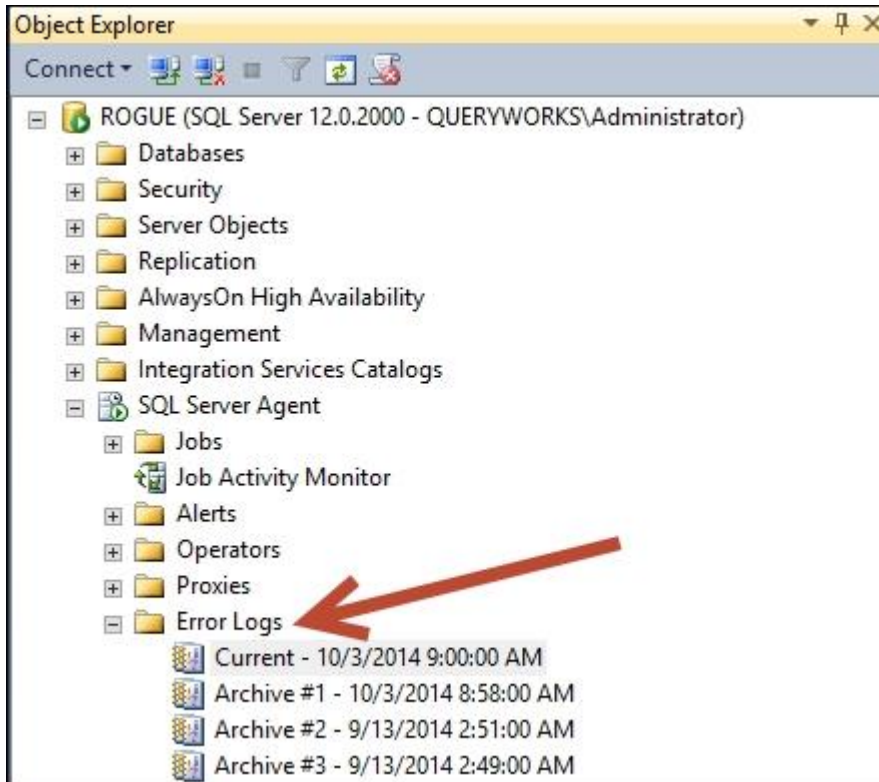2. Generate scripts – creates executable SQL script
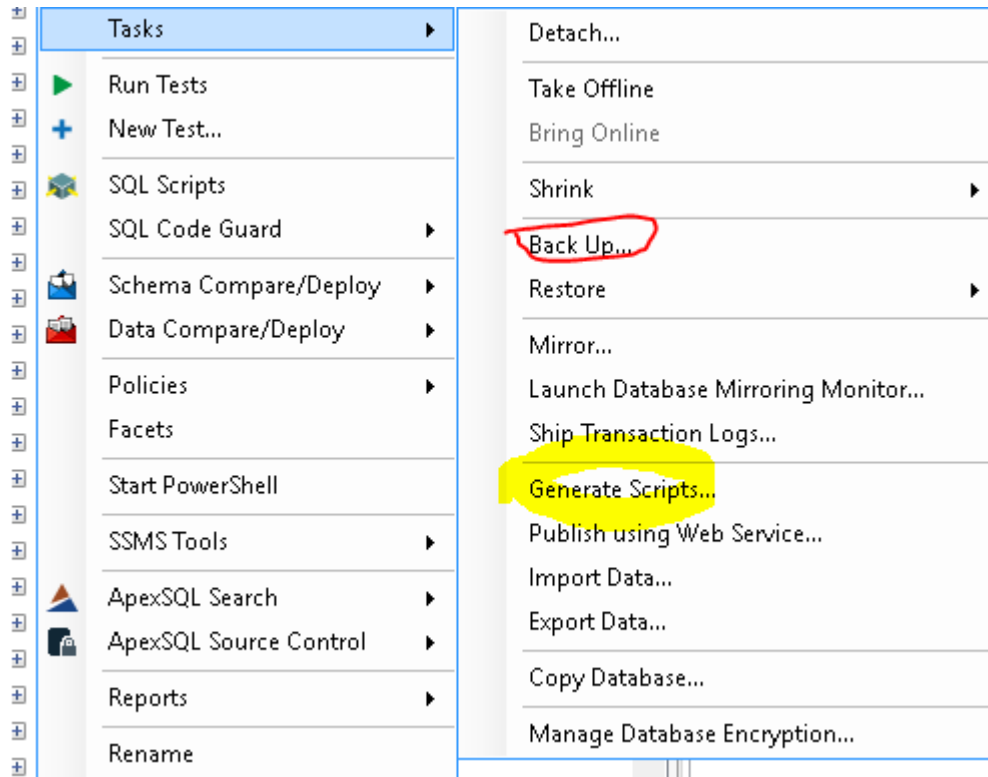
ERROR MESSAGES

Tomcat Console

Tomcat will display syntax and connectivity errors.

SQL Server

Expand SQL Server Agent and Error Logs. Double click on "Current" to view recent errors.

1. Search for error code on MSDN. http://msdn.microsoft.com/en-us/library/ms187382.aspx
   a. Common error and resolution
      i. Object exists, drop and re-create.
      ii. Constraint error: Likely the dependent table script threw an exception prior to creation. Drop and re-create.
      iii. Error codes by number @ http://msdn.microsoft.com/en-us/library/ms131381.aspx

2. Java Connection Errors:
   a. From same machine, make sure dual SQL authentication is enabled.
   b. Change database.properties file located @ MedLog/ trunk/ MedLogRS/src/java/database.properties
      i. Update sever to "localhost"
      ii. Username to "**sa**" – or your local account
3. JavaEE Errors
   a. Check
      i. JDK > 7.0

      ii.   JavaEE > 5

     iii.   Tomcat > 7..0

TROUBLESHOOTING

Restore Initial State of App

Web: Remove current installation of Tomcat from %ProgramFiles%\Apache\ directory
     Follow [instructions](#) to install Tomcat

SQL: Delete the current database with DELETE DATABASE command
     Follow [instructions](#) to install database

SYSTEM REQUIREMENTS

- Microsoft Windows
  - SQL Server 2008R2+
- Apache Tomcat v7+
- 1GB Free Hard Drive
- 4GB Ram