

Getting Started as a Developer

Welcome to the world of OpenMRS development! This page introduces you to the things you'll need to get started on your journey.

Your first step when getting started as a developer should be to look through our [Developer Manual \(PDF\)](#). This book will give you all the information you need to get started as an OpenMRS developer in an easy to read and concise format.

Once you've read through the Developer Manual, here's a quick summary of things you can do to get started:

1. **Create an OpenMRS ID.** Your OpenMRS ID defines your username in the OpenMRS community and provides access to community resources, like this wiki, our issues tracker, and the OpenMRS Talk forums.
2. **Create a new case at OpenMRS Helpdesk** stating you'd like to contribute and would like edit access to Wiki and JIRA. Because of spammers, we must require this extra step before you can edit wiki pages or make any changes to JIRA tickets.
3. **Create a GitHub account** if you don't have one.
4. **Join discussions at OpenMRS Talk.** Be sure to add your GitHub username to your settings in Talk, then [introduce yourself to the community](#). You can learn more about how to use Talk by reading this [introduction](#).
5. **Set up your development environment.** Follow the [Step-by-Step Installation for Developers](#) and [How-To Setup And Use Your IDE](#). The Developer's Manual also has a helpful chapter on [Setting Up Your Development Environment](#).
6. Download and install the [OpenMRS SDK](#).
7. Watch some OpenMRS [development screencasts on YouTube](#).
8. **Create your first OpenMRS module.** The Developer's Manual features a chapter on how to create a [Hello World Module](#).
9. **Claim an issue.** Review community priorities and introductory issues below to find an issue of interest to you that is ready for work, claim it, and make your first contribution. If you need any clarification on the issue, use [OpenMRS Talk](#) or join [IRC](#) for real-time interaction. If you find yourself taking long (days) without making any progress, feel free to un-assign yourself from the issue and choose another.
10. **Meet some other developers** through real-time chat in [Telegram \(telegram.me/openmrs\)](#) or [IRC \(irc.openmrs.org\)](#).
11. **Learn about OpenMRS Developer Stages**, earn the `/dev /null` badge and, when you're ready, [take the quiz to earn /dev/1](#).
12. Try as much as you can to **include unit tests for your changes**. Remember to also do an "mvn clean install" to ensure that all existing unit tests and yours pass. Then create a pull request. If your changes affect the user interface, please run the web application to see the effects, and then attach a screenshot, before you commit. Remember to have a look at the [Pull Request Tips](#).
13. **When you complete work on an issue**, log your time spent on that issue and click "Request Code Review" and another developer will get you some feedback in short order.
14. **Read about Using Git.** This is especially useful if you join a sprint or choose to share your module (we hope you do).
15. **Avoid staying assigned to issues you aren't actively working on.** When you no longer want to work on an issue that you have already assigned to yourself, please remember to un-assign yourself from it such that others can take it up. If you have any findings that you feel would be useful to whoever takes it up, please feel free to add a comment.
16. **Do some code reviews.** Here is the [list of pull requests](#) that are waiting for review. Reviewing other people's work is one of the great ways of learning about OpenMRS. You can even review code for some one more experienced than you. Reviews can be as simple as checking to ensure that

Are you stuck or not sure where to start? Specific technical questions can be asked at [om.rs/ask](#). For real time interaction, join our developers in Telegram ([telegram.me/openmrs](#)) or IRC ([irc.openmrs.org](#)). Who knew saving lives with code could be this fun? Come join us!

commits are squashed into one, adherence to our [code conventions](#), finding spelling mistakes, or pointing out missing JavaDoc comments. More details about code reviews can be found at this [wiki page](#).

17. **Review Unassigned Projects** if you want to find a larger project to work on.

Share your experience

New developers, please share your experiences (good or bad) on [this page](#). We are always trying to find ways to improve where we can do better and reinforce things we are doing well, so getting input from your perspective is very helpful & appreciated.

Community Priorities

Here is a list of tickets prioritized by the community from the [Community Priority Kanban](#):

Key	Summary	T	Created	Updated	Due	Assigned	Reporter	P	Status	Resolution
RA-209	Condition List phase 1		2013-08-26	2019-02-02		Unassigned	Darius Jazayeri	⬆️	Waiting for Dev	Unresolved
RA-452	XSS vulnerabilities in Ref App 2.x	🔴	2014-10-20	2018-10-13		Unassigned	Wyclif Luyima	⬆️	Waiting for Dev	Unresolved
RA-1359	Enable Dashboard Widgets to be created in other modules	🟢	2017-05-10	2019-02-11		Unassigned	Stephen Senkomago Musoke	⬆️	Waiting for Dev	Unresolved
TRUNK-5406	Add NOTICE file to openmrs-core	🟩	2018-05-24	2019-02-02		Unassigned	Burke Mamlin	⬆️	Ready for Work	Unresolved

4 issues

Introductory Issues

The following issues are both "introductory" and also "curated", meaning that they have thorough descriptions of how to approach solving them:

T	Key	Summary
🟢	TRUNK-4655	Add openmrs-core and Standalone 2.x module messages to transfex
🔴	SYNC-285	Cannot download database from parent during child server setup
🔴	RA-452	XSS vulnerabilities in Ref App 2.x
🔴	LUI-55	Error adding a ConvSet in a second form schema
🔴	LUI-44	TaskHelperTest results in errors randomly

5 issues

If you aren't able to find an appropriate issue in the list above, you can take a look at the [complete list of "introductory" issues](#), (not necessarily "curated").

Beyond Introductory Issues

You could also do code reviews for [pull requests](#).

If you try out the sprint, code reviews, and still find it boring, please feel free to ask us on [IRC](#) or the developers [mailing list](#).

Current Sprint Issues

We may have an ongoing [Development Sprints](#). Feel free to ask on [IRC](#) or the development category of [OpenMRS Talk](#).

Other Useful Resources

- [Conventions](#)
- [Code Review](#)
- [Code Review Checklist](#)
- [Simple Secure Coding Checklist](#)
- [Newbie Guide to OpenMRS Development](#) - by Sri Maurya Kummamuru
- <http://stackoverflow.com/help/how-to-ask>
- <http://www.catb.org/~esr/faqs/smart-questions.html>
- [How to send a good PR to the OpenMRS ?—?A complete work flow by Jeyasumangala Rasanayagam](#)