# Project Exploration – Quick Guided Tour of OpenMRS

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## Background

If you are interested in contributing to an open source project, it’s important to understand that not all open source projects are equally good choices. Some projects just don't welcome new contributors, or are not well organized to support getting new people up to speed. Other projects are much more welcoming and provide clear pathways to join the community.

Anyone considering becoming a contributor to a project should have some idea what to look for in evaluating whether a project is a good choice for becoming a contributor. This activity introduces a basic set of criteria to consider when thinking about becoming a contributor to a project.

This activity uses the OpenMRS project as an example project to explore. OpenMRS is an electronic medical record system that is used primarily in the developing world.

## Instructions

Use the steps below for each criterion as a way to explore and evaluate OpenMRS. FOSS projects tend to have similarities in the way they are organized, so walking through these steps for OpenMRS will provide an example that will be useful in understanding and evaluating other FOSS projects.

**Licensing** - An important first step is to identify the license used by the project. An open source project must specify that others are free to use it, redistribute it, change it, and redistribute modified versions too. An extensive list of open source licenses can be found at <https://opensource.org/licenses/alphabetical>. A list of free software licenses can be found at <https://www.gnu.org/licenses/license-list.html#GPLCompatibleLicenses>

* Go to the OpenMRS core repository (<https://github.com/openmrs/openmrs-core>). On the repository page, click on the "< > Code" tab below the repository name. Look at the “About” information down the right side of the screen for a license name. Note: if the license does not appear here, or if a project is not on GitHub, look at the top level files in the repository for a license file, typically called LICENSE.
* Does OpenMRS use an OSI approved open source license? What license is used?

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**Technology** - The software technology used in a project is an important consideration for picking a project. If the project is written in a language you are already familiar with, or better yet, well-versed in, this is one less hurdle to overcome. On the other hand, you may pick a project that uses a language you do not know, but would like to learn. Programming language is a key element of evaluating technology, but you should also consider other aspects of the technical architecture. This may include frameworks, libraries, DBMS, etc. Depending on what sort of contribution you intend, these elements may be very important to your evaluation or not important at all. For OpenMRS:

* In the same right-hand panel that contains the license information, look for the section with programming language information. Record the top languages (up to three) used and the percentage for each.
* Language 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Language 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Language 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Determining use of other technologies can require much more varied approaches for different FOSS projects. Developer documentation is often helpful. For example, for OpenMRS, browse this page: <https://devmanual.openmrs.org/technology/architecture/>

**Level of Activity** - To support new participants, a project should be reasonably active. Number of commits can be used as an indicator of activity. Little to no activity over a year, for example, may indicate that the project is dead, or mature and not being actively developed.

* In GitHub, click the "Insights" tab near the top of the screen and then select "Commits" option from the menu on the left.
* If we define "Active" as meaning that a majority of the weeks in a given quarter have commits, determine whether each quarter was active over the last year. Note: since the definition of "active" is approximate, assess each quarter at a glance rather than by actual count of commits.
* Number of quarters active: \_\_\_\_\_\_\_\_\_\_

**Number of contributors** - A common FOSSism (an expression about FOSS) states that "It's all about community," so a suitable project should have an active community. The community members are great resources for potential new contributors as they begin to learn about a new project, its culture, and norms.

* Click the "< > Code" tab. The right hand panel shows the number of contributors.
* How many contributors there are for the OpenMRS core project? \_\_\_\_\_\_

**New contributor** - The project should show an interest in welcoming to new contributors. Some clear examples of this would be links to “Getting Started” pages or information on ways to become involved. These pages, in turn, should include additional details about **how** to become involved, as well as information about **how** to connect with the community.

Briefly browse <https://openmrs.org/> and then click on the link at the top of that page Alabeled “Get Involved”. What are three of the areas where people might get involved:

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**Community Norms** - The way in which community members interact with one another is an important factor in community success. For any new contributor, it is unlikely to be a good experience to join a project that permits rude, aggressive, or unprofessional behavior.

Many projects provide a "Code of Conduct", yet others do not. On GitHub, you can select “Insights” along the top tabs, and then select “Community Standards” along the left menu. This will bring you to a “best practice” list that has evolved for projects on public development platforms including GitHub. For OpenMRS, the list does not locate a Code of Conduct. In cases like this, a Web search may be quicker than hunting through the project site. A search for “OpenMRS Code of Conduct” will provide this link: <https://wiki.openmrs.org/display/RES/OpenMRS+Code+of+Conduct>

What are three areas addressed in OpenMRS Code of Conduct?

**User base** - A project will not thrive without a core user-base. The user-base consists of clients, people who use the product on a day-to-day basis. They provide the development team with necessary feedback about the project, what works, what doesn't and what new features they might like to see. If no one is using the product, then developers are likely to abandon it. Browse the repository and related links.

* Based on browsing <https://openmrs.org/> what indicators do you find about the size of the user base?

There are other important criteria in deciding whether you might contribute to a project. Two of those are discussed below, but will not be explored as part of this activity.

**Product Size** - The size of the project is likely to be a factor depending on the level of expertise of a potential contributor. A large project that is built using many technologies may be overwhelming to a less experienced person, but may be a perfect fit for someone with a lot of experience.

Since Product Size can take a lot of research, we will not try to analyze OpenMRS for this activity. As you might guess based on the project material we are browsing, OpenMRS is a very large project containing hundreds of thousands of lines of code.

**Issue tracker** - The issue tracker can provide insight into the health of a project. An active issue tracker should highlight issues that clients/developers have logged as well as an indication that these issues are being addressed. The OpenMRS issue tracker shows that the project has a high level of activity.

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