**Open Source Software (OSS) Score Sheet**

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## **Introduction**

This document is designed to guide the reader through picking an open source software (OSS) that they can use in developing another program. The OSS they choose might be used as the base for another software or it might be used as more of a tool in the software development process.

In the below sections, the reader will be walked through a series of criteria that they can use to judge a set of OSSs. This document only provides a limited set of criteria to judge the OSS by, so the reader is invited to use other forms of criteria in their OSS selection.

## **Before Scoring: Create a Selection of OSS to Choose From**

Before you can begin scoring your OSS, there are few preliminary things that must be done. First, you must have developed a project plan enough that you have the requirements and other basic ideas of what your software is going to look like. The purpose, functional requirements, and the nonfunctional requirements should be defined, and with it, your software’s planned features should also be defined (at least on a high-level).

Once you know what you want out of your OSS, it is time to conduct research on possible OSS options that you could use in your project. Find and narrow down your selection to a manageable list (we recommend no more than 7). This list of OSS is ideally what you will be using this guide to compare.

Write the list of OSS that you will be comparing in the table below.

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| 2. |  |
| 3. |  |
| 4. |  |
| 5. |  |
| 6. |  |
| 7. |  |

## **Criteria 1: Number of Desired Features**

Probably the most important criteria to judge your OSS selection on is the number of desired features each OSS has. In this section, you can figure out which OSS has the most features that you are looking for, and which one can be used to meet the most requirements.

First, list out the most important features or requirements that the OSS must have. It is recommended that you list these features/requirements in the order of their importance.

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| 14. |  |
| 15. |  |

**Total Number of Features: \_\_\_\_\_\_\_\_\_\_**

Next, using your research, figure out how many of your top features/requirements listed above does each OSS have/meet. In the table below, put the name (and possibly the corresponding number) of each OSS in the first column. Then in the second column, list the corresponding numbers of the features that each OSS achieves. Finally, in the third column, count the number of features each OSS meets, and mark down the ratio of each count compared to the total number of features.

| Name of OSS | List of Corresponding Numbers of the Features Met | Number of Features Met Compared to Total Number of Features |
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After you complete the table, take note of which OSS has or is capable of having the most amount of desired features/requirements.

## **Criteria 2: Skills Required**

In order to use an OSS in your project, you or your team must have the necessary skills needed to properly understand and implement the OSS. These skills may be ones that you can easily learn given enough time, or they can be skills that are only obtainable through extensive experience. Additionally, some of the OSS that is in your selection list might require that you gain more skills than the others. You should also consider whether any of the skills you or your team needs can be obtained in-house, or whether you will have to look to outside professionals for help.

Fill out the table below to see if any of your OSS will require more training to use.

| Name of OSS | What Skills are required to use this OSS? | List Any Skills That Need to be Obtained | Is it Easy to Obtain These Skills? | Total Number of Missing Skills |
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Analyze the table above and take note of any OSS that requires more skill training than the rest.

## **Criteria 3: Hardware Compatibility**

Not all software works with every piece of hardware. It is important to check whether the hardware you plan to use for your project is compatible with the OSS you are using. This is especially important if your project relies heavily on its machine’s hardware.

Fill in the writing prompt and table below to check whether your OSS selections are compatible with your project’s hardware.

**Your project’s hardware specification: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

| Name of OSS | Hardware That OSS is Compatible With | Does OSS Meet Your Project’s Hardware Specifications? |
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Take note of any OSS that is not compatible with your project’s hardware. Depending on whether it meets your other important needs or not, you will need to either not use this OSS or you will need to change your project’s hardware specification.

## **Criteria 4: Operating System Compatibility**

Just like with hardware, not all software is compatible with every operating system (OS). It is critical that you take note of what operating system you plan to use for your project and check that your chosen OSS is compatible with it. It is also important to take note if your OSSs is specifically made with one operating system in mind since one OSS might be more optimized with your chosen operating system more than another.

Fill in the writing prompt and table below to check whether your possible OSSs are compatible with your chosen operating system.

**Your project’s operating system: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

| Name of OSS | Operating Systems That the OSS is Compatible With | Is OSS Compatible With Your Operating System? |
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Take note of any OSS that is not compatible with your operating system. Depending on whether it meets your other important needs or not, you will need to either not use this OSS or you will need to change your project’s operating system.

## **Criteria 5: Time of Last Update**

As time passes, technology changes and gets updated. Software that hasn’t been updated in a while might use libraries and coding techniques that are no longer used and supported. For that reason, it is important to note when was the last time that your OSSs were updated.

Fill in the table below to note the last time your OSSs were updated.

| Name of OSS | Time and Date of Last Update/Version |
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Note any OSS that haven’t been updated in a while. These OSSs might require an extensive amount of time to modernize.

## **Criteria 6: Active Community and Community Size**

One of the major advantages of using OSS is the community that exists behind the software. This community develops, documents, and troubleshoots that software, and can be a great asset to use when developing your project. Thus, it is a good idea to mark down the size of the community behind each of your OSSs and how active those communities are.

Fill in the table below to note active status and size of the community behind each of your possible OSSs.

| Name of OSS | Is the Community that Supports the OSS Still Active? | How Big is the Community that Supports the OSS? |
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Depending on what you are using the OSS for and how knowledgeable you and your team are, the community behind an OSS might be very important to your project development.

## **Criteria 7: Amount of Documentation**

An important criteria that people tend to forget when selecting an OSS is the amount and the level of detail of documentation that exists for each OSS. Documentation is very important to understanding the design, structure, issues, and thought process of any software. Thus, it is important to look through and note down the amount and detail level of the pre-existing documentation that exists for each of your possible OSS choices.

Fill in the table below to roughly check the amount and level of detail of the documentation that exists for your possible OSS selections.

| Name of OSS | How Much Documentation Exists for the OSS?  (~a lot, a decent amount, or none) | Estimate the Level of Detail of the Documentation  (high-level, low-level, or both) |
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Depending on your and your team’s level of skills and knowledge, an OSS with a limited amount of documentation might not be your solution.

## **After Scoring: Results**

Now that you are done analyzing and scoring each OSS based on the criteria listed above, it is time to compare all of the OSSs against each other and find the one that will suit your needs. **It should be noted that the importance of each criteria is entirely dependent on your project’s purpose and what you plan to use the OSS for. The decision on which OSS is the best for your project is entirely up to you.**

To help you compare your results on a high-level, you can fill in the table located on the next page.

| Name of OSS | Ratio of Features Included vs. Total Desired Features | Total Number of Missing Skills | Is Hardware Spec. Met? | Is it Compatible With Desired Operating System? | Time and Date of Last Update | Active Community? | Size of Community | Amount of Documentation | Detail of Documentation |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
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Once you have looked over all of the scoring results, you can choose an OSS that fits your needs the best.

**The OSS you will be using is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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