

## Differences between Library and a Framework:

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<b><u>Feature</u></b>	<b><u>Library</u></b>	<b><u>Framework</u></b>
<b>Purpose</b>	Provides pre-written code for specific tasks	Provides a foundation and structure for building applications
<b>Control Flow</b>	You control when and how the library is used	The framework dictates the overall structure and flow of your application
<b>Scope</b>	Offers functionality for specific tasks	Offers a broader range of features for entire applications
<b>Flexibility</b>	More flexible, you can use functions as needed	Less flexible, you need to adapt your code to the framework's structure
<b>Example</b>	Math library for calculations	Web development framework like Django or Ruby on Rails

Here's an analogy:

•**Libraries are like toolkits:** They provide a set of tools (functions) that you can use to complete specific tasks while working on your project. You decide which tool to use and when.

•**Frameworks are like pre-fabricated houses:** They provide a blueprint and most of the materials (pre-written code) to build a house (application). You can customize the house (code) to some extent, but the overall structure is predetermined.

Choosing between a library and a framework depends on your needs. If you need to add a specific functionality to your existing project, a library is a good option. If you're building a new application from scratch and want a structured approach, a framework might be better.