

Create a new JavaFX project

JavaFX is a software platform that is used for developing desktop applications that can run across a wide variety of devices.

JavaFX support in IntelliJ IDEA includes code completion, search, navigation and refactoring in JavaFX-specific source files (including `.fxml` and JavaFX `.css` files), integration with JavaFX Scene Builder, JavaFX application packaging capabilities, and more.

Note that JavaFX is **no longer a part of the JDK** starting from JDK 11. That is why, if you use Java 11 and later, you need to download the open-source JavaFX SDK in addition to the JDK.

If you use Java 10 and earlier, you can create a new project right away.

Download the JavaFX SDK

1. Download the [JavaFX SDK](#) package suitable for your operating system.
2. Unpack the archive and place the folder to a meaningful location, for example:
`/Users/jetbrains/Desktop/javafx-sdk-12`.

Create a new project

When you create a new JavaFX project, IntelliJ IDEA generates a fully configured sample application.

1. Launch IntelliJ IDEA.

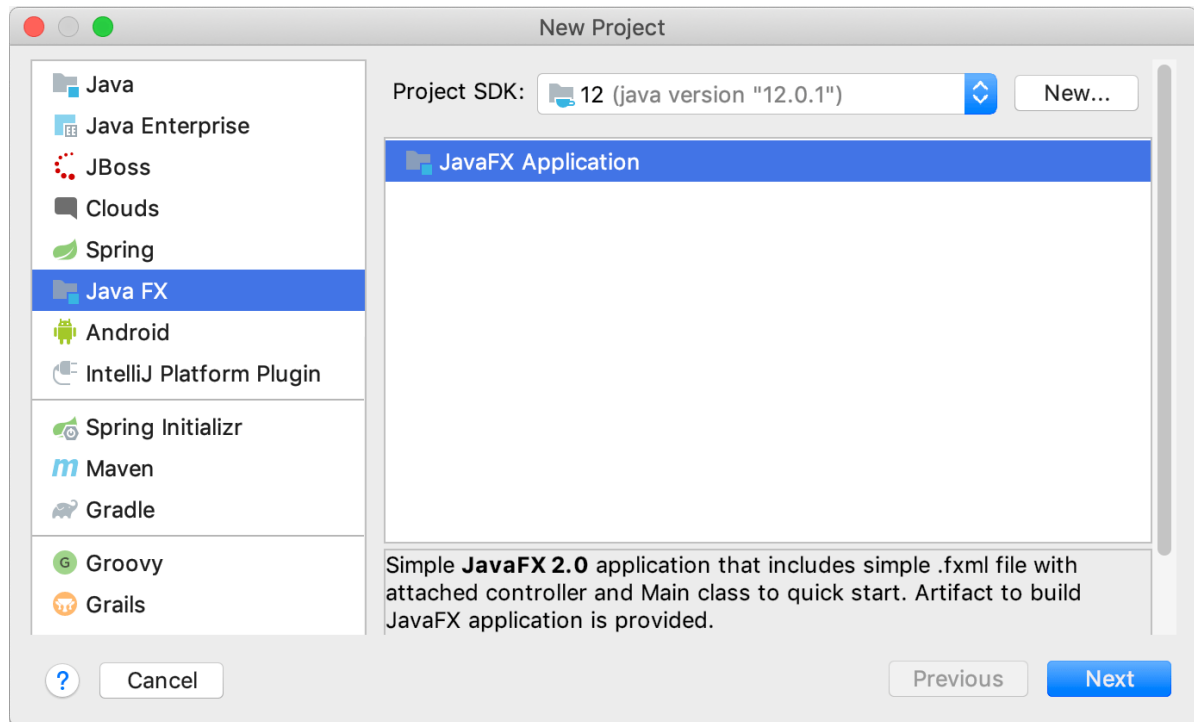
If the **Welcome** screen opens, click **Create New Project**.

Otherwise, from the main menu, select **File | New | Project**.

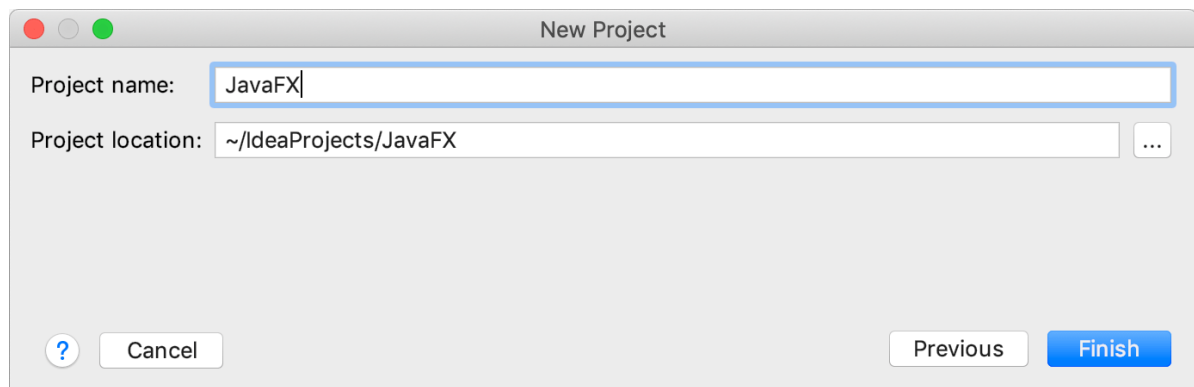
2. In the **New Project** wizard, select **JavaFX** from the list on the left.
3. From the **Project SDK** list, select the JDK that you want to use in your project.

If the list is empty, click **New** and specify the path to the Java home directory (for example, `/Library/Java/JavaVirtualMachines/jdk-12.0.1.jdk`).

If you don't have Java on your computer, refer to [Download a JDK package](#) for the instructions on how to download and install it.





4. On the next step of the wizard, name the project, for example: **JavaFX**.
5. If necessary, change the default project location and click **Finish**.

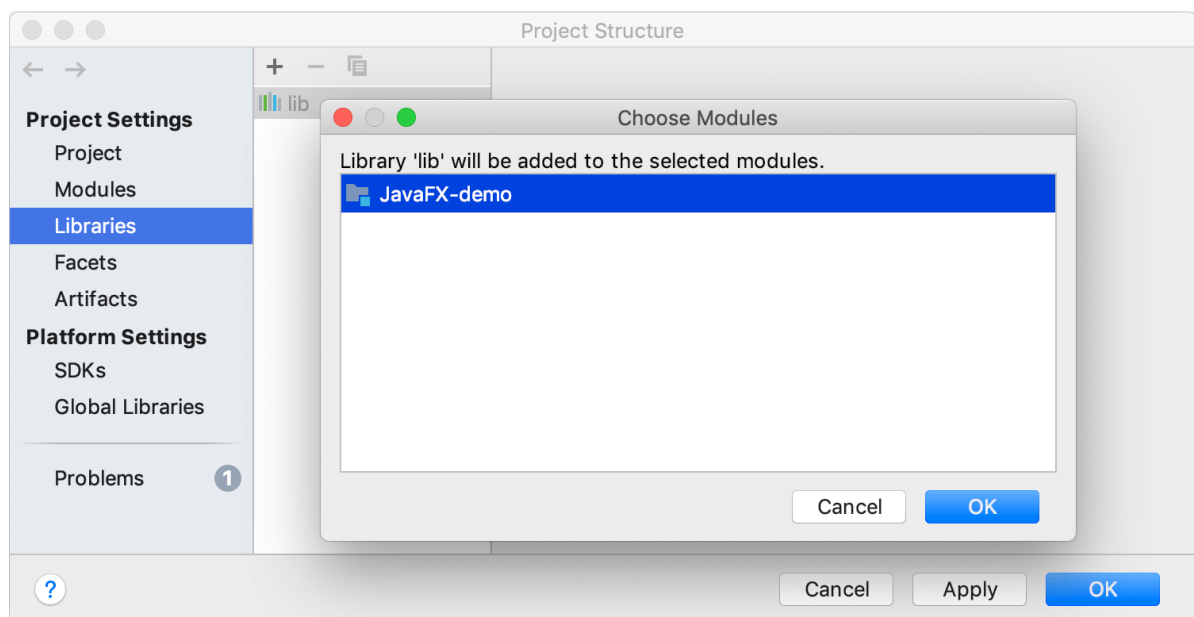


If you cannot find JavaFX in the **New Project** wizard, make sure that the bundled **JavaFX** plugin is enabled in **Settings/Preferences | Plugins**.

Add the JavaFX library

These actions are required if you use Java 11 and later. If you use Java 10 and earlier, run the sample application created together with the project to make sure that everything is working as intended.

1. From the main menu, select **File | Project Structure** ; or click  on the toolbar.
2. Open the **Libraries** section, click **+**, and select **Java**.
3. Specify the path to the **lib** folder in the JavaFX SDK package, for example:
`/Users/jetbrains/Desktop/javafx-sdk-12/lib` .
4. In the **Choose Modules** dialog, select the necessary module and click **OK**.



5. Apply the changes and close the **Project Structure** dialog.

Add VM options

These actions are required if you use Java 11 and later. If you use Java 10 and earlier, you can run the sample application created together with the project to make sure that everything is working as intended.

1. From the main menu, select **Run | Edit Configurations**.

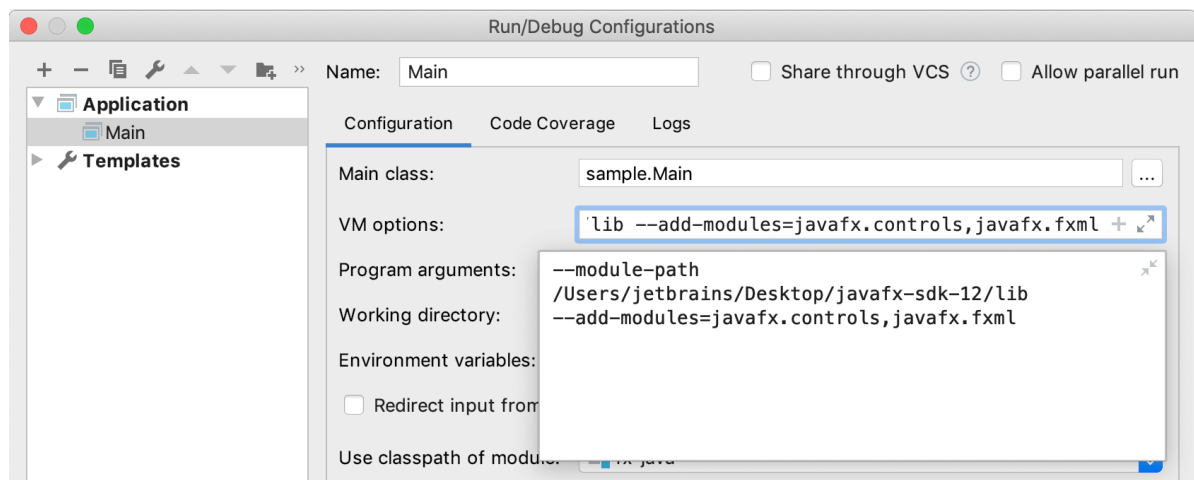
2. Select **Application | Main** from the list on the left.

3. In the **VM options** field, specify:


```
--module-path %PATH_TO_FX% --add-modules  
javafx.controls,javafx.fxml
```

Instead of `%PATH_TO_FX%`, specify the path to the JavaFX SDK **lib** directory, for example: `/Users/jetbrains/Desktop/javafx-sdk-12/lib`.

4. Apply the change and close the dialog.



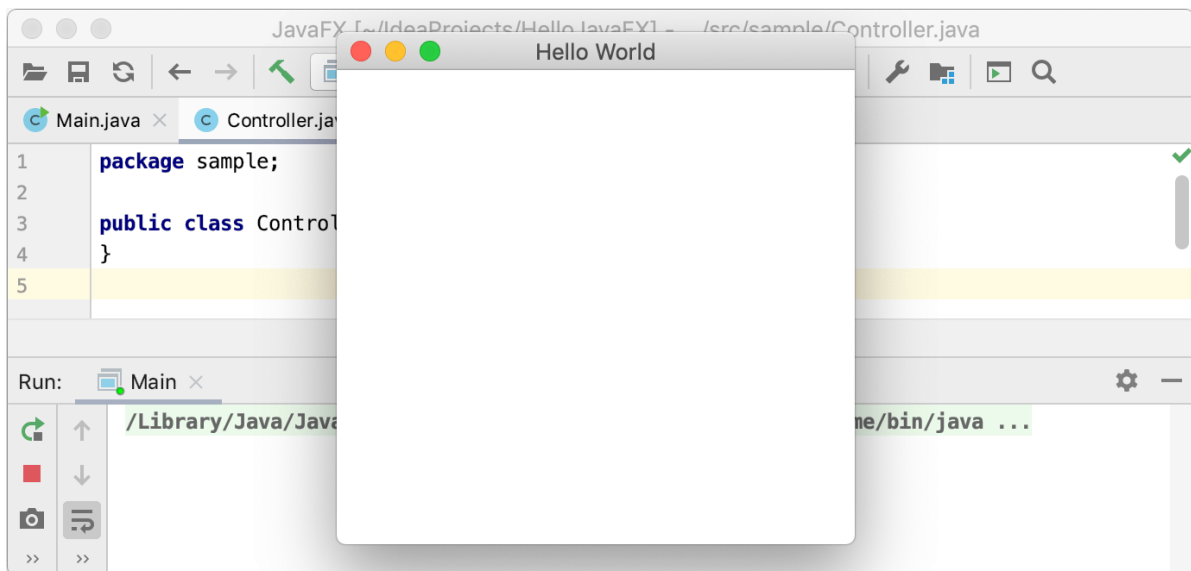
Run the application


1. From the main menu, select **Run | Run 'Main'** .

The IDE starts compiling your code.

2. When the compilation is complete, the application window appears.

This means that the project is configured correctly and everything works as it should. The window is empty at the moment as we haven't added any elements yet.



-  For information on how to create modular and non-modular projects with Maven or Gradle, refer to [Getting Started with JavaFX](#).

Troubleshoot

- Error: JavaFX runtime components are missing, and are required to run this application

The Java launcher checks if the main class extends `javafx.application.Application`.

If you use Java 11 and later, make sure to specify [VM options](#) in the run configuration.

- Error occurred during initialization of boot layer
`java.lang.module.FindException: Module javafx.base not found`

The [path to the JavaFX library](#) in the **VM options** field in the run configuration is likely to be incorrect. Make sure that the path is valid and try again.

- Process finished with exit code `-1073740791 (0xC0000409)`

The problem is caused by an error in the NVIDEA driver. Update your driver to the latest version. For more information, refer to the [community forum](#).