

Develop the Python Script

Develop the python script:

- To create and edit a Python script, it is almost essential to use a text editor with syntax highlighting.
- For this course, we recommend using VSCode as provided by Microsoft.
- It's easily installed on Windows either directly or through Anaconda and macOS users can install and run it through Anaconda as well.

Steps:

1. Create and run your first Python project.
2. Create a Python file.
3. Edit Python code.
4. Run your application.
5. Summary.

Create a Python project:

1. If you're on the Welcome screen, click New Project. If you've already got any project open, choose File | New Project from the main menu.
2. Although you can create projects of various types in PyCharm, in this tutorial let's create a simple Pure Python project. This template will create an empty project.
3. Choose the project location. Click the Browse button next to the Location field and specify the directory for your project.
4. Also, deselect the Create a main.py welcome script checkbox because you will create a new Python file for this tutorial.

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5. Expand the Python Interpreter: New Virtualenv Environment node and select a tool used to create a new virtual environment. Let's choose Virtualenv tool, and specify the location of the environment and the base Python interpreter used for the new virtual environment.

Create a Python File:

1. In the Project tool window, select the project root (typically, it is the root node in the project tree), right-click it, and select File | New
2. Select the option Python File from the context menu, and then type the new filename.

PyCharm creates a new Python file and opens it for editing.

Edit Python Code:

Let's start editing the Python file you've just created.

1. Start with declaring a class. Immediately as you start typing, PyCharm suggests how to complete your line:
 1. Choose the keyword class and type the class name, Car.
2. PyCharm informs you about the missing colon, then expected indentation:
3. Note that PyCharm analyses your code on-the-fly, the results are immediately shown in the inspection indicator in the upper-right corner of the editor. This inspection indication works like a traffic light: when it is green, everything is OK, and you can go on with your code; a yellow light means some minor problems that however will not affect compilation; but when the light is red, it means that you have some serious errors. Click it to preview the details in the Problems tool window.

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4. Let's continue creating the function `__init__`: when you just type the opening brace, PyCharm creates the entire code construct (mandatory parameter `self`, closing brace and colon), and provides proper indentation.
5. If you notice any inspection warnings as you're editing your code, click the bulb symbol to preview the list of possible fixes and recommended action.
6. Intention actions.
7. Let's copy and paste the entire code sample. Click the copy button in the upper-right corner of the code block here in the help page, then paste it into the PyCharm editor replacing the content of the `Car.py` file.

Run your application:

Use either of the following ways to run your code:

Right-click the editor and select Run 'Car' from the context menu .

Press `Ctrl+Shift+F10`.

Since this Python script contains a main function, you can click an icon Run icon in the left gutter in the gutter..

If you click this icon, you'll see the popup menu of the available commands. Choose Run 'Car'.

Summary:

Let's repeat what you've done with the help of PyCharm:

1. Created a project.

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2. Created a file in the project.
3. Created the source code.
4. Ran this source code.