Object-oriented programming (OOP)
(Python)
Lab1

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Python Introduction

What is Python?

Python is a popular programming language. It was created by Guido van Rossum, and released in 1991.

It is used for:

- web development (server-side),
- software development,
- mathematics,
- system scripting.

What can Python do?

Python can be used on a server to create web applications.

Python can be used alongside software to create workflows.

Python can connect to database systems. It can also read and modify files.

Python can be used to handle big data and perform complex mathematics.

Python Introduction…

Why Python?

Python works on different platforms (Windows, Mac, Linux, Pi, etc).

Python has a simple syntax similar to the English language.

Python has syntax that allows developers to write programs with fewer lines than some other programming languages.

Python runs on an interpreter system, meaning that code can be executed as soon as it is written. This means that prototyping can be very quick.

Download Python

Step 1: Select the version of to install the python . Python available from its website, Python.org . Once there, hover your mouse over the download menu, then over the windows option, and then click the button to downloaded the latest release in the fig. 1.1

fig. 1.1

Download Python …

Step 2: We select the **add python 3.9 to PATH** and then click on **customize installation**.

fig. 1.2

Download Python…

Step 3: a) Then select (documentation, pip, td/tk and IDE , python test suite)

b) Click on **next.**

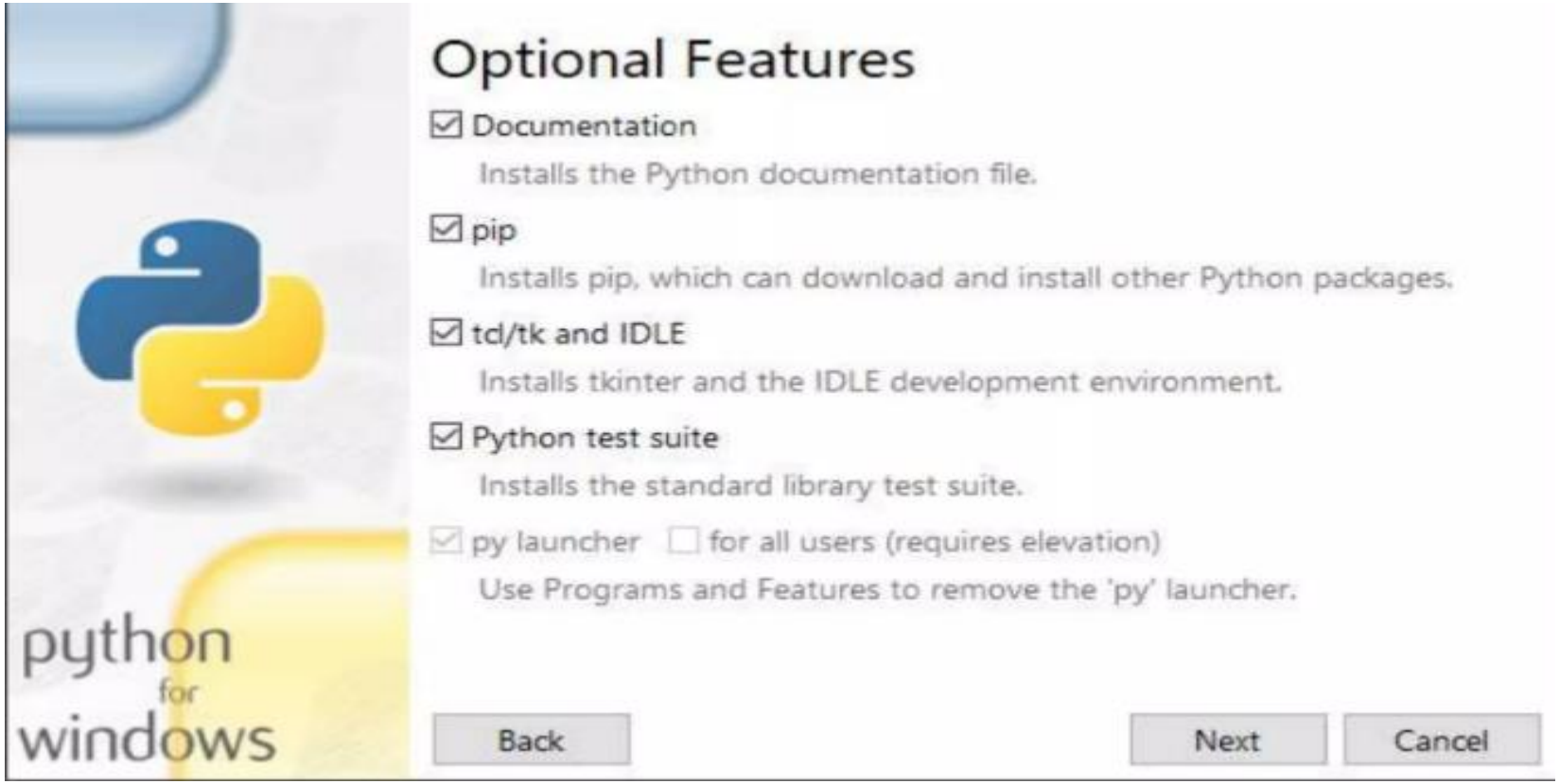


fig. 1.3

Download Python…

Step 4: Select the **check boxes** as shown in Figure 1.4 and then click **Install**

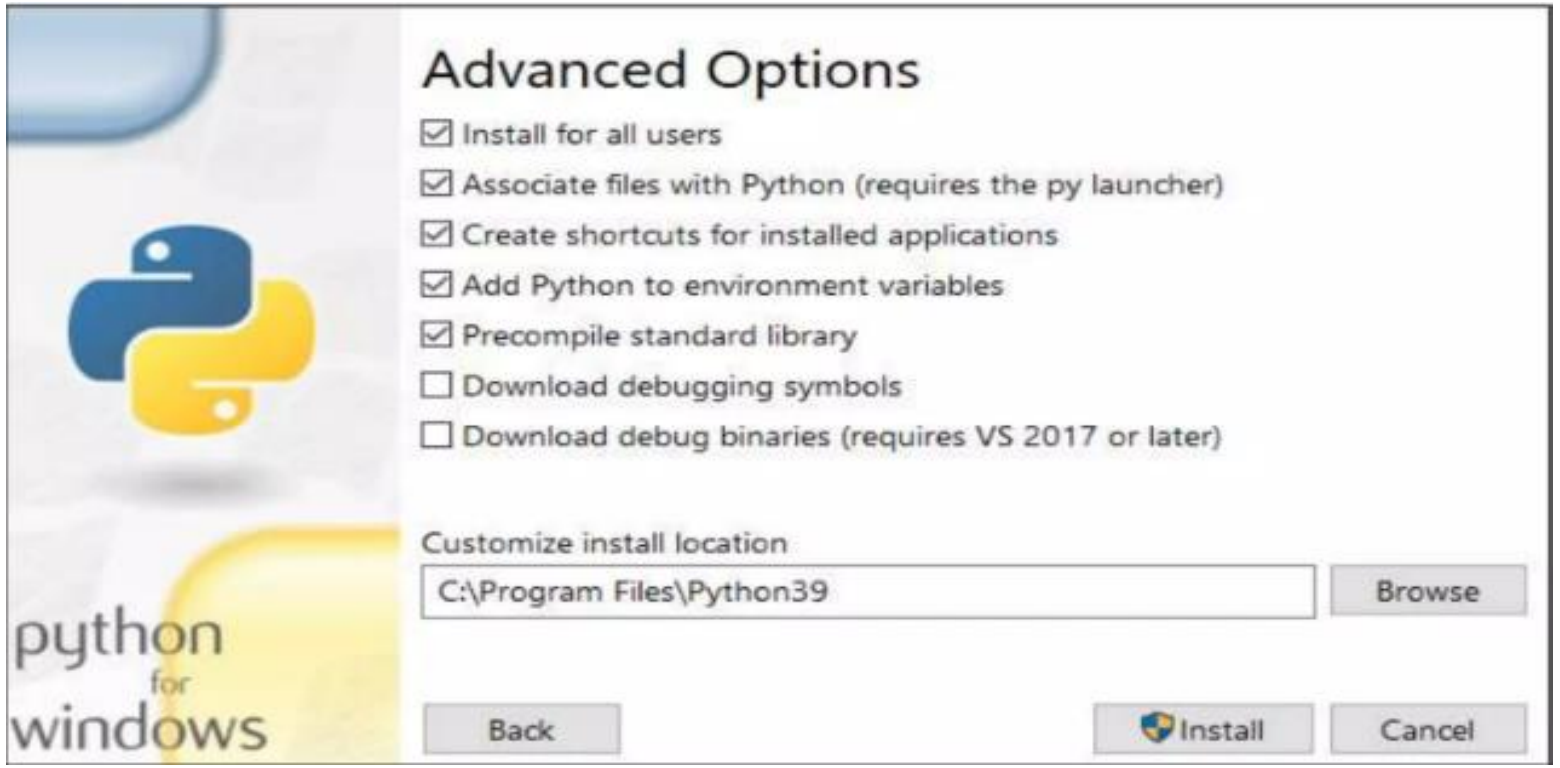


fig. 1.4

Download Python…

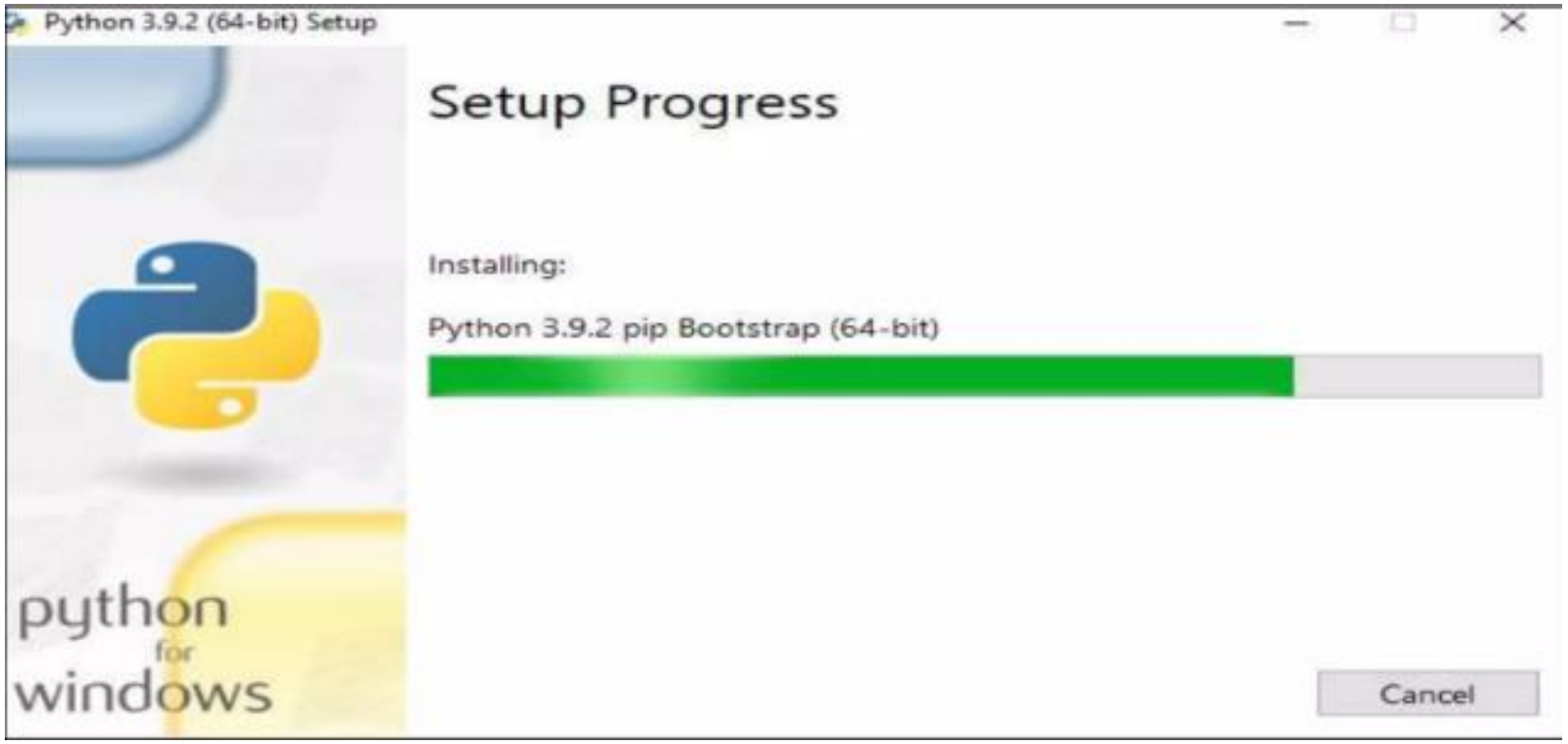


fig. 1.5

Download Python…

Step 5 : Close the installation. We can see that our setup was successful.

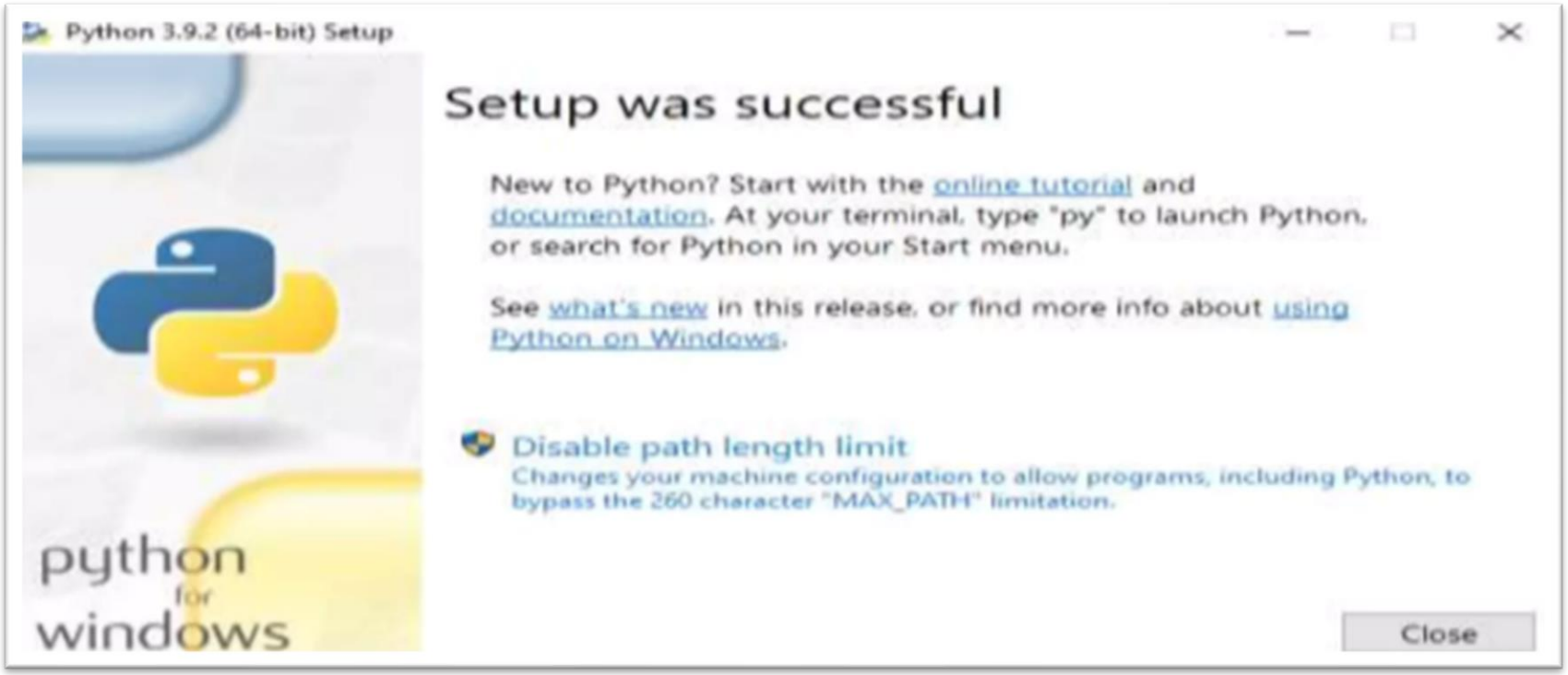


fig. 1.6

Download PyCharm

PyCharm is the most popular used for python scripting language. PyCharm offers some of the best features to its users and developers in the following aspects:

- Code completion and inspection.
- advance debugging.
- support for web programming and frameworks such as Django.

The steps to download PyCharm:

Download the required or executable from the official website of PyCharm

https://www.jetbrains.com/pycharm/download/?section=windows of package for windows as shown fig.1.7 given below:

Download PyCharm…

- Scroll down the page and download from the community edition.

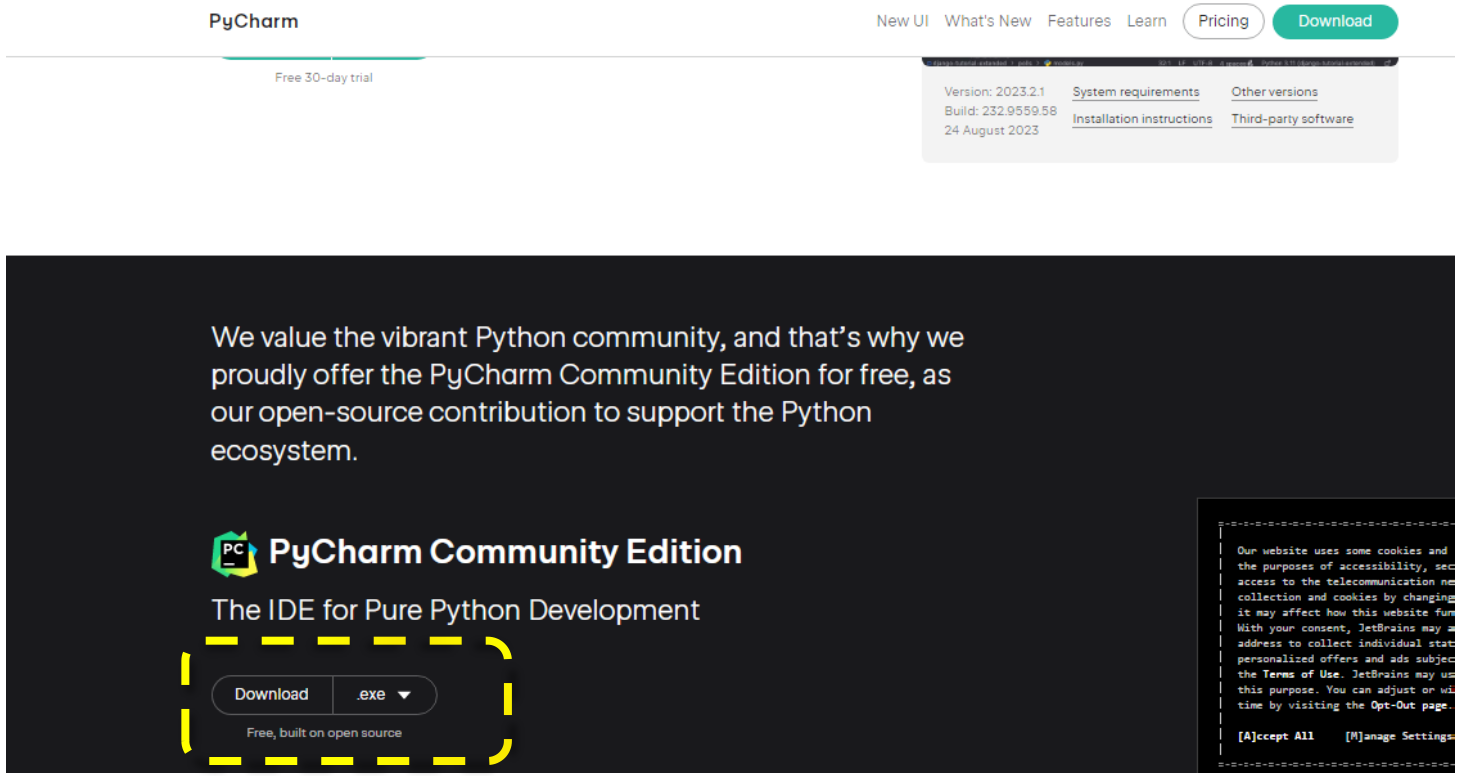


fig. 1.7

Download PyCharm…

- Click on **next** to continue.

fig. 1.8

Download PyCharm…

- Click on all options and then on Next.

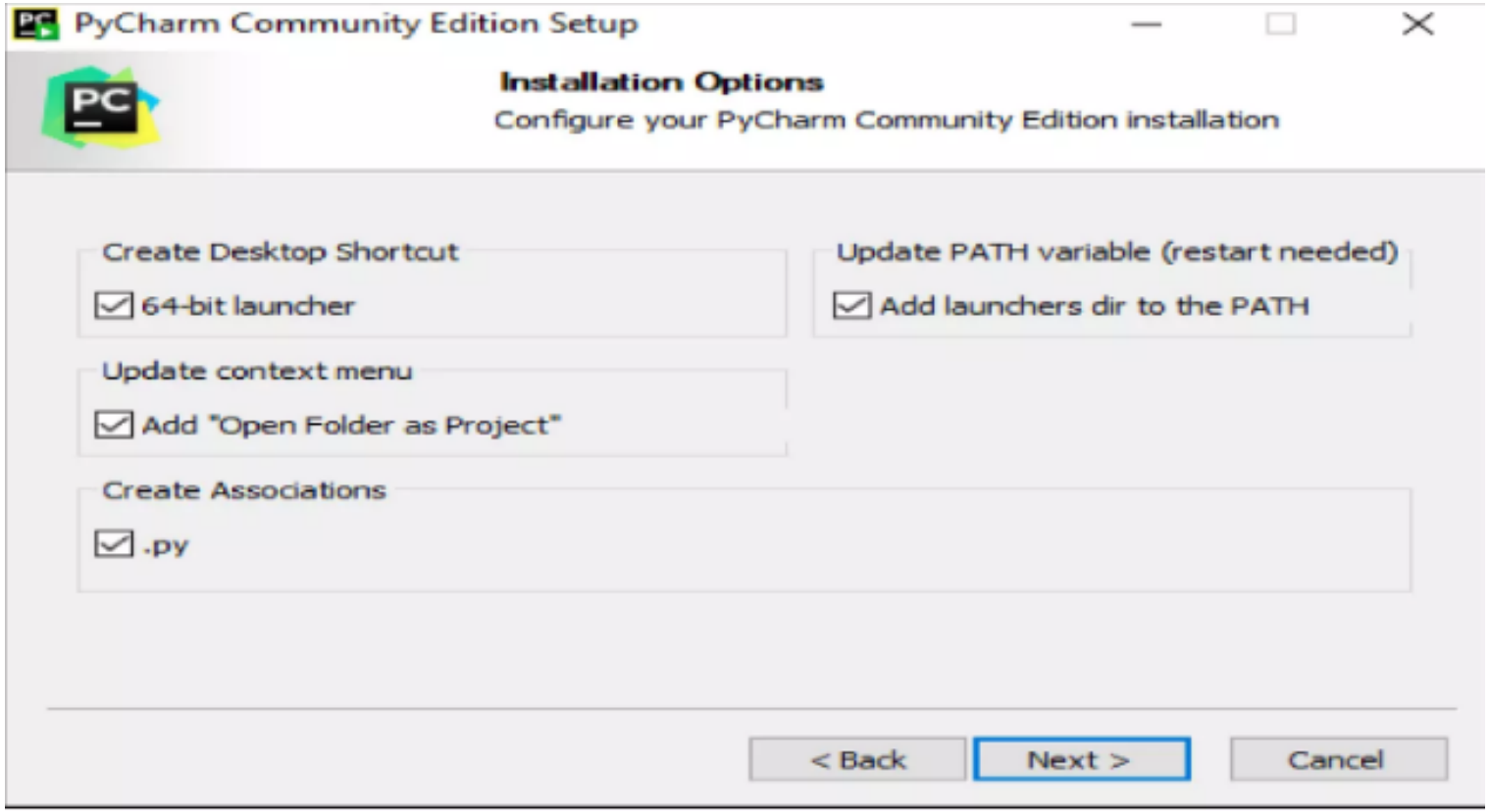


fig. 1.9

Download PyCharm…

- Now, begin the installation procedure similar to any other software package.

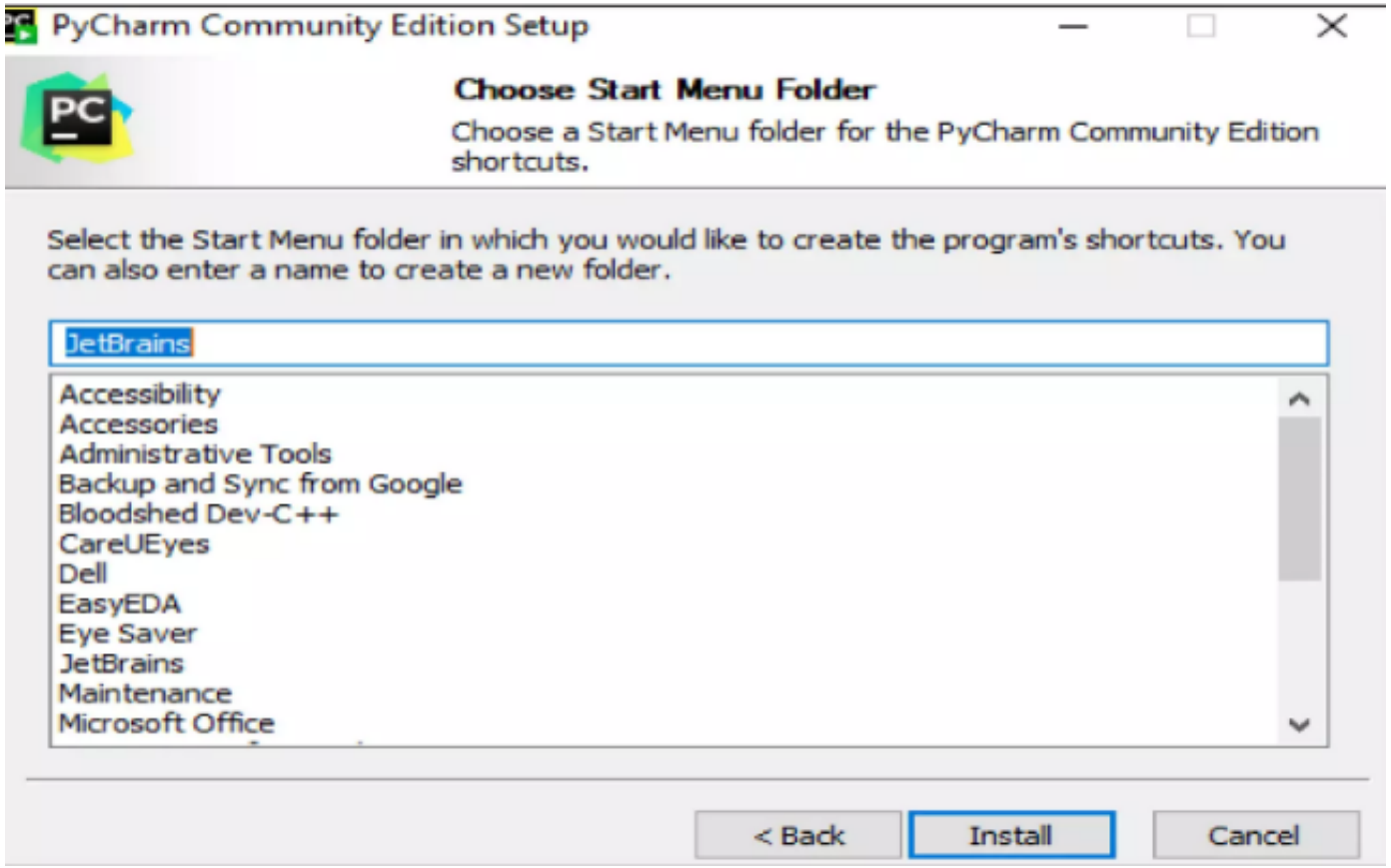


fig. 1.10

Download PyCharm…

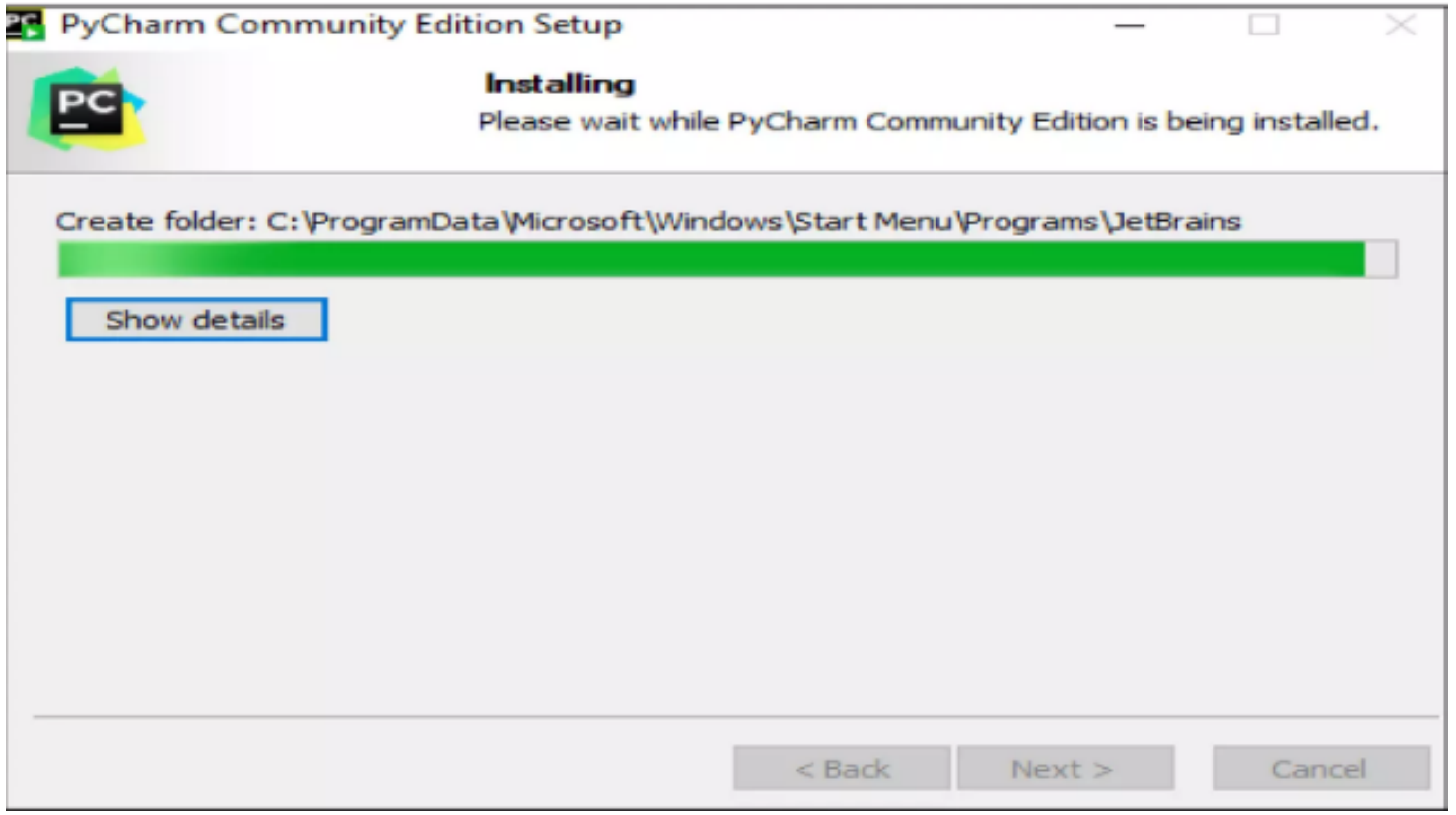


fig. 1.11

Download PyCharm…

fig. 1.12

when

Download PyCharm…

When the installation is successful as shown in fig.13, PyCharm asks you to import settings of existing package if any

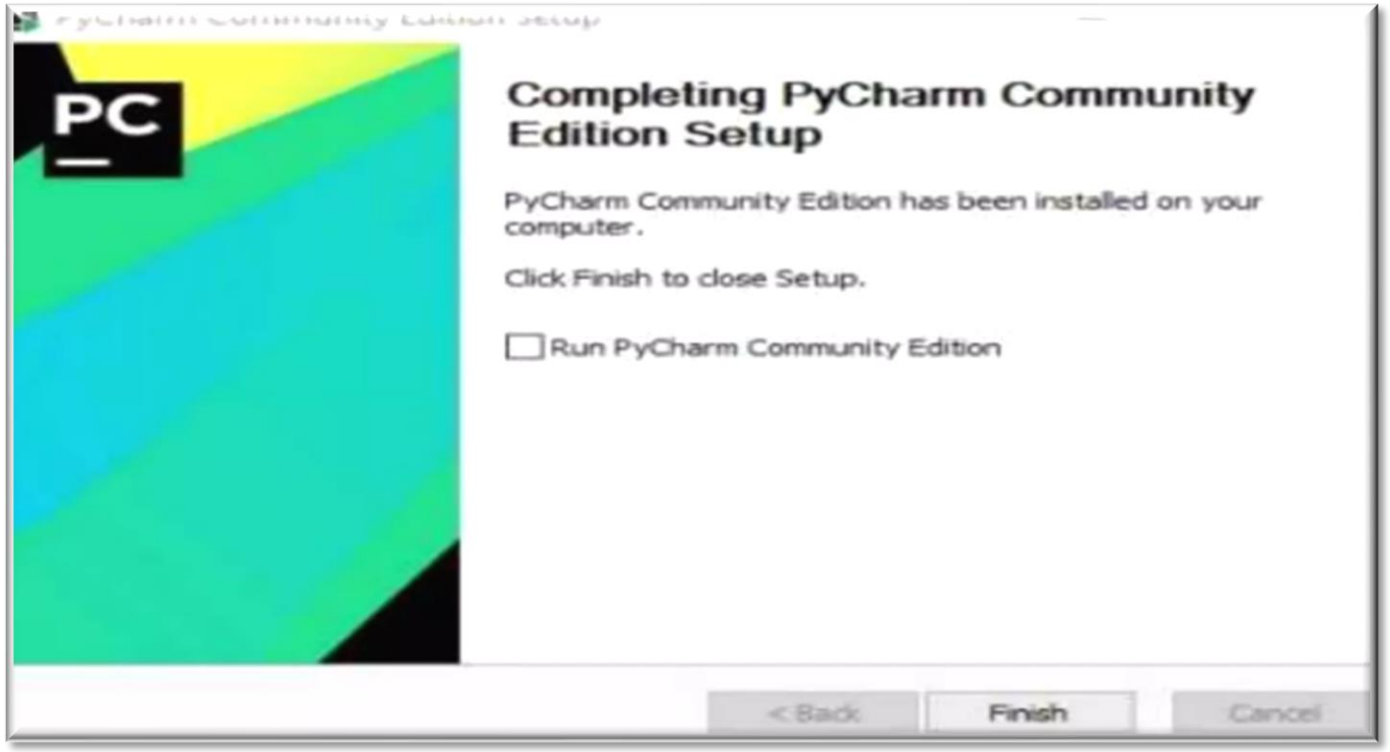
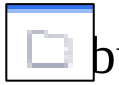
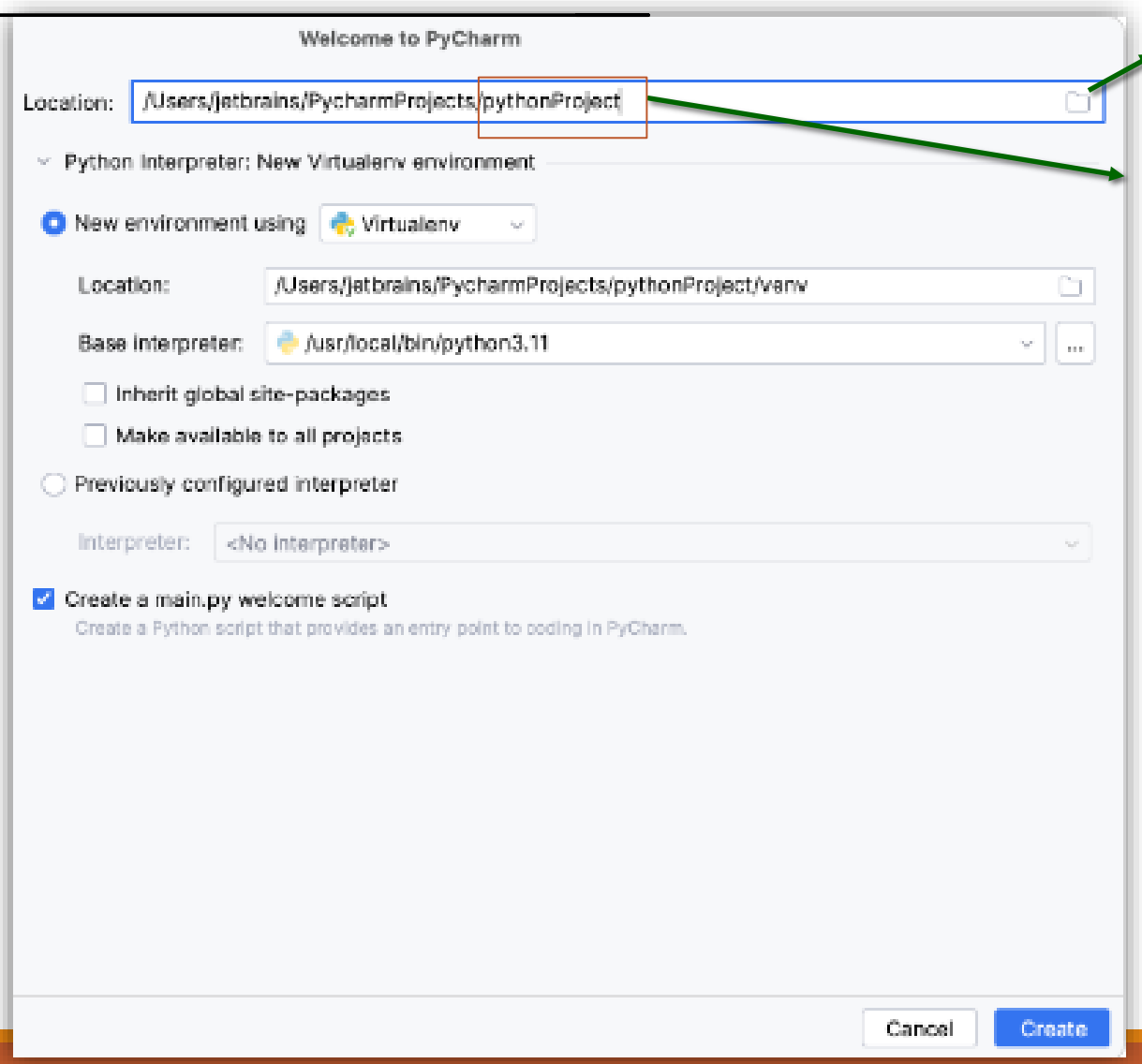


fig. 1.13

Create a Python project

1. When you open program and show beginning interface , **click Create New Project**. If you've already got any project open, choose **File | New Project** from the main menu.
2. Choose the project location by Click  button next to the **Location** field and specify the directory for your project , as figure 1.14.

Create a Python project…



Choose the project location

project name: /pythonprojrct

fig. 1.14

Create a Python project…

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** .

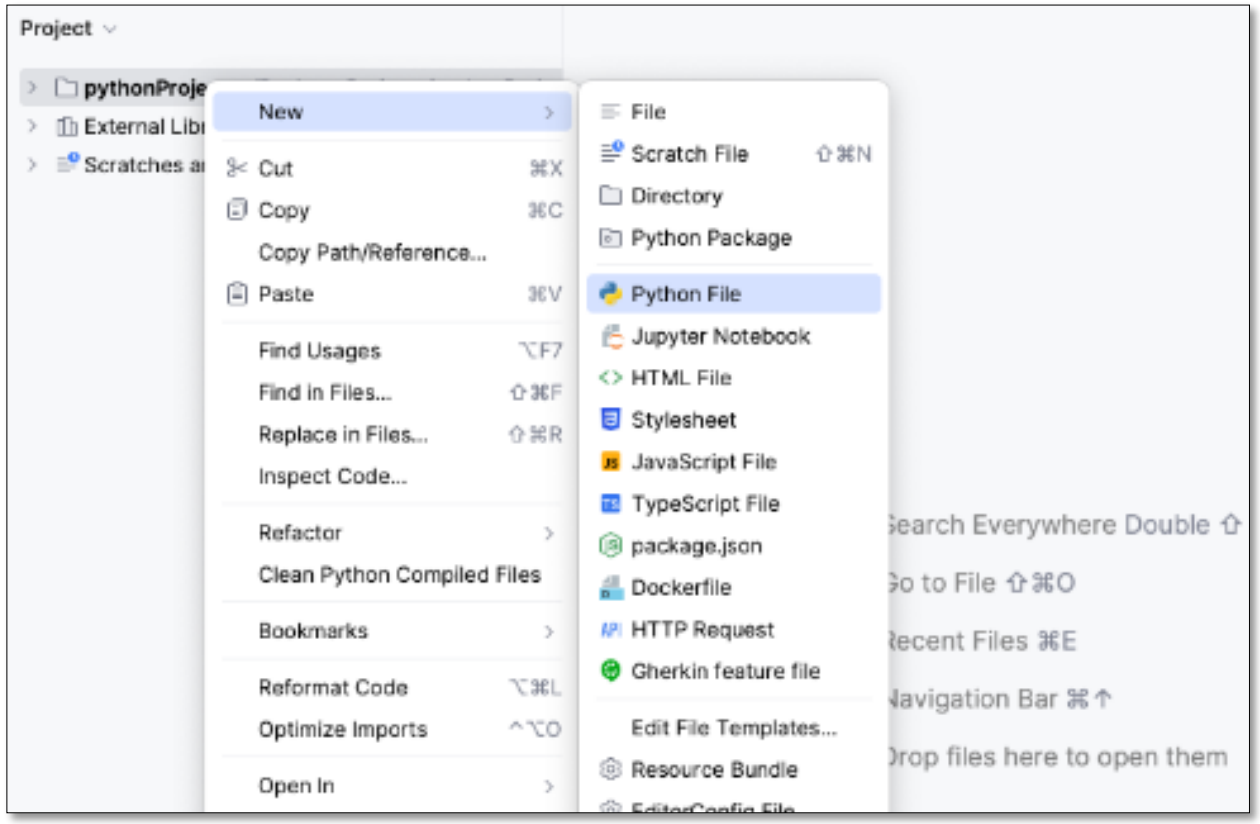


fig. 1.15

Create a Python project…

2. Select the option Python File from the context menu, and then type the new filename.

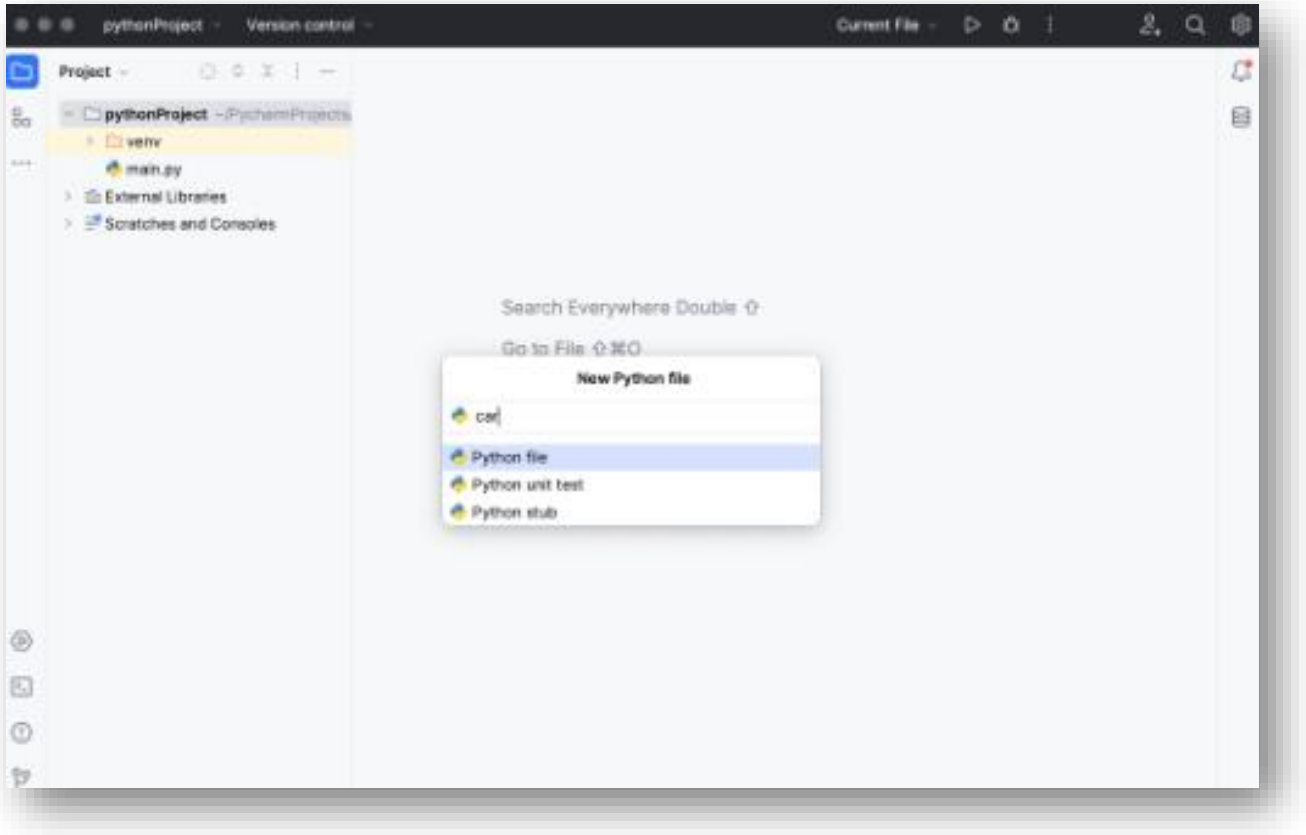


fig. 1.16

Create a Python project…

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

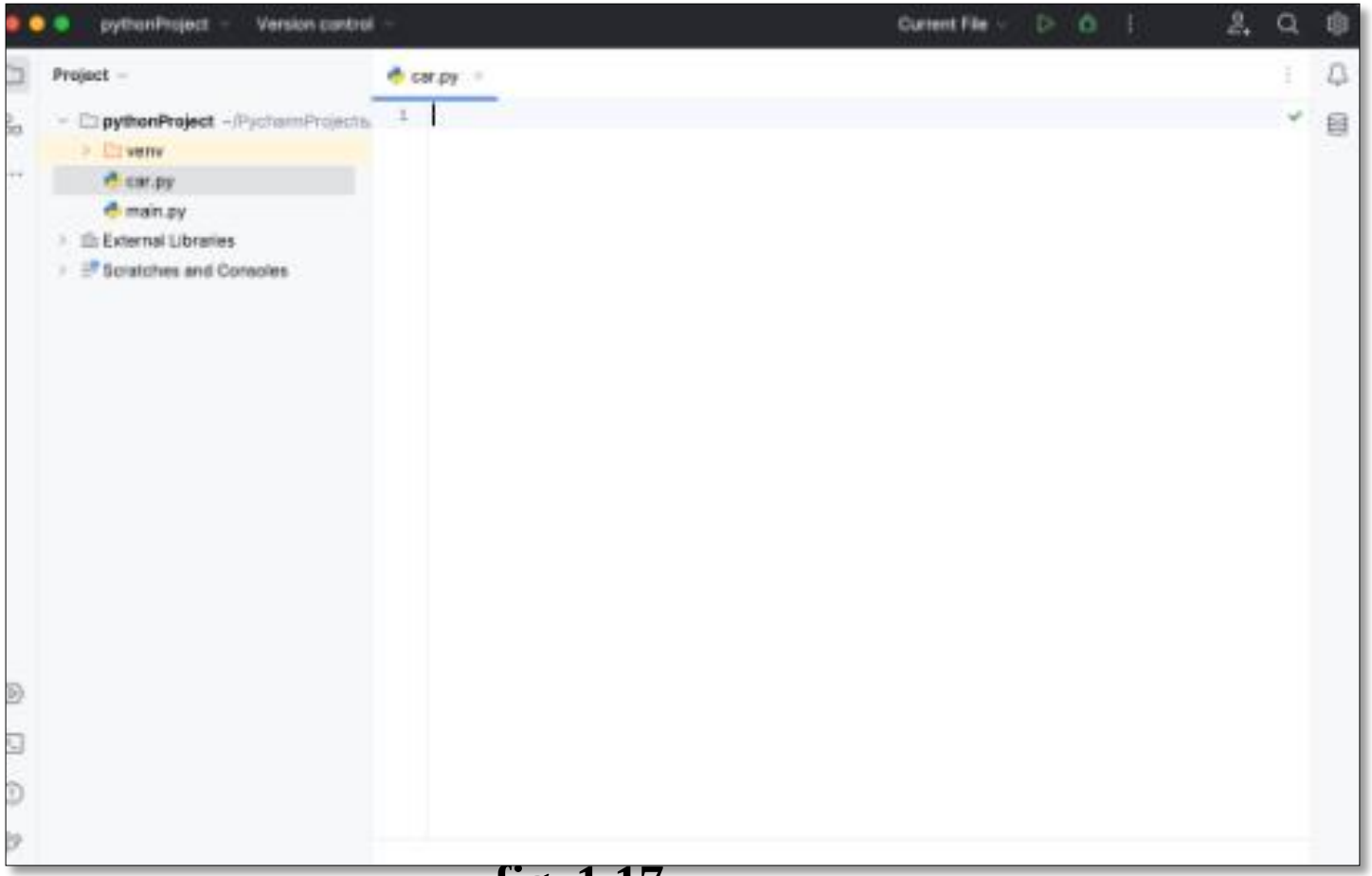


fig. 1.17

Thank you