Installing Python on windows

Step 1: Select version of python to install

We need to choose the version which we want to use or need. There are different versions of Python 2 and Python 3 available.

Step 2: Download python executable installer

Go to https://www.python.org/downloads/ on browser and all the available versions of Python will be listed. Select the version required by you and click on Download.

Release version	Release date		Click for more
Python 3.9.10	Jan. 14, 2022	Download	Release Notes
Python 3.10.2	Jan. 14, 2022	Download	Release Notes
Python 3.10.1	Dec. 6, 2021	Download	Release Notes
Python 3.9.9	Nov. 15, 2021	Download	Release Notes
Python 3.9.8	Nov. 5, 2021	Download	Release Notes
Python 3.10.0	Oct. 4, 2021	Download	Release Notes
Python 3.7.12	Sept. 4, 2021	Download	Release Notes

On clicking download, various available executable installers shall be visible with different operating system specifications. Choose the installer which suits your system operating system and download the installer. Let suppose, we select the Windows installer (64 bits).

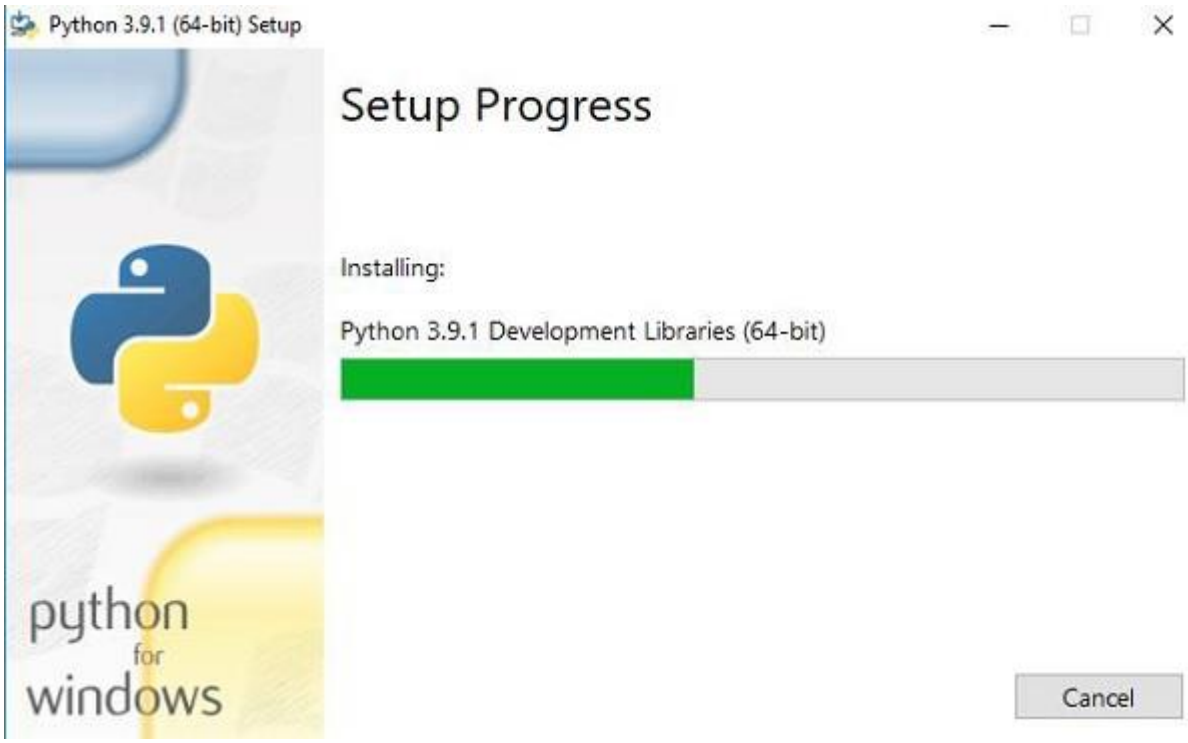
Version	Operating System	Description	MD5 Sum	File Size	GPG
Gzipped source tarball	Source release		1440acb71471e2394befdb30b1a958d1	25800844	SIG
XZ compressed source tarball	Source release		e754c4b2276750fd5b4785a1b443683a	19154136	SIG
macOS 64-bit Intel-only installer	macOS	for macOS 10.9 and later, deprecated	2714cb9e6241cf7e2f9022714a55d27a	30395760	SIG
macOS 64-bit universal2 installer	macOS	for macOS 10.9 and later	c2393ab11a423d817501b8566ab5da9f	38217233	SIG
Windows embeddable package (32-bit)	Windows		c1d2af96d9f3564f57f35cfc3c1006eb	7671509	SIG
Windows embeddable package (64-bit)	Windows		b8e8bfba8e56edcd654d15e3bdc2e29a	8509821	SIG
Windows help file	Windows		784020441c1a25289483d3d8771a8215	9284044	SIG
Windows installer (32-bit)	Windows		457d648dc8a71b6bc32da30a7805c55b	27767040	SIG
Windows installer (64-bit)	Windows	Recommended	747ac35ae667f4ec1ee3b001e9b7dbc6	28909456	SIG

Step 3: Run executable installer

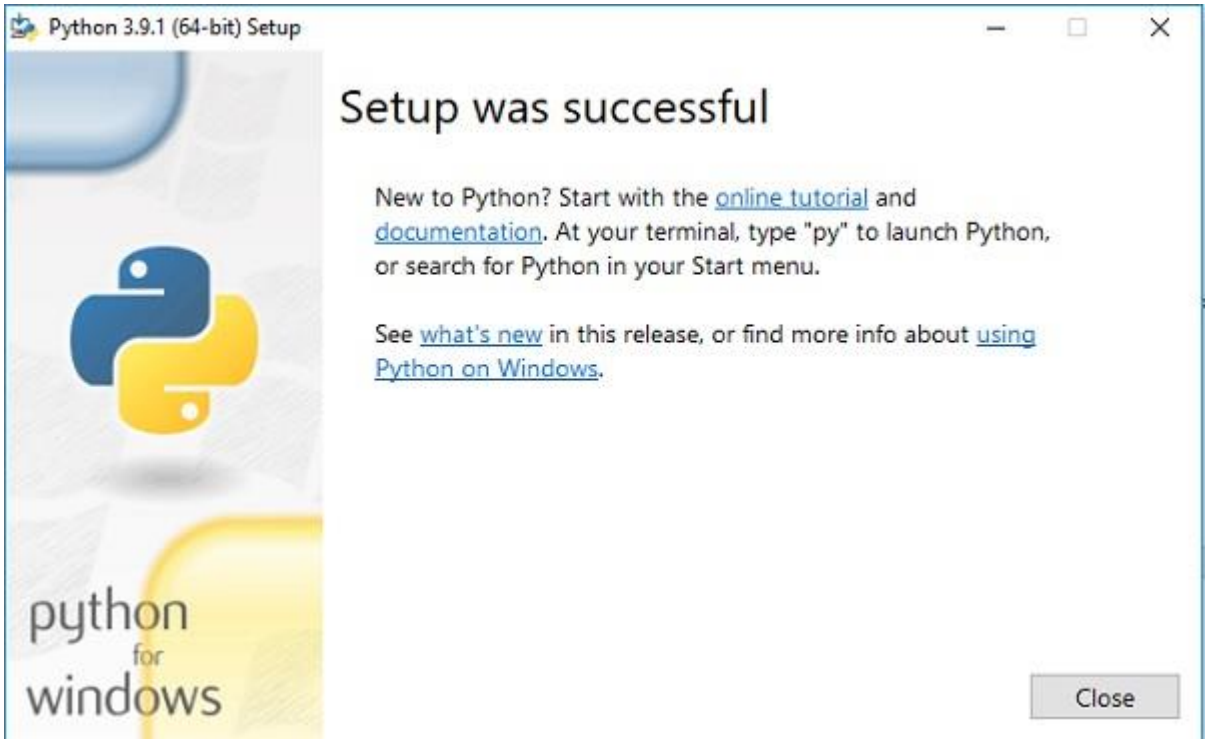
For example, We downloaded the Python 3.9.1 Windows 64 bit installer.

Run the installer. Make sure to select both the checkboxes at the bottom and then click Install New as shown below

On clicking the Install Now, the installation process starts.



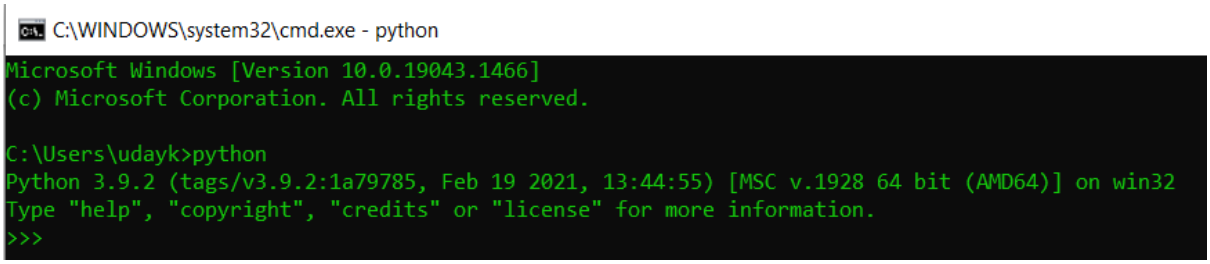
The installation process will take few minutes to complete and once the installation is successful, the following screen is displayed.



Step 4: Verify python is installed on windows

To ensure if Python is successfully installed on your system. Follow the given steps −

- Open the command prompt.
- Type 'python' and press enter.
- The version of the python which you have installed will be displayed if the python is successfully installed on your windows.



Step 5: Verify Pip is installed

To verify if pip was installed, follow the given steps −

- Open the command prompt.
- Enter pip –V to check if pip was installed.
- The following output appears if pip is installed successfully.

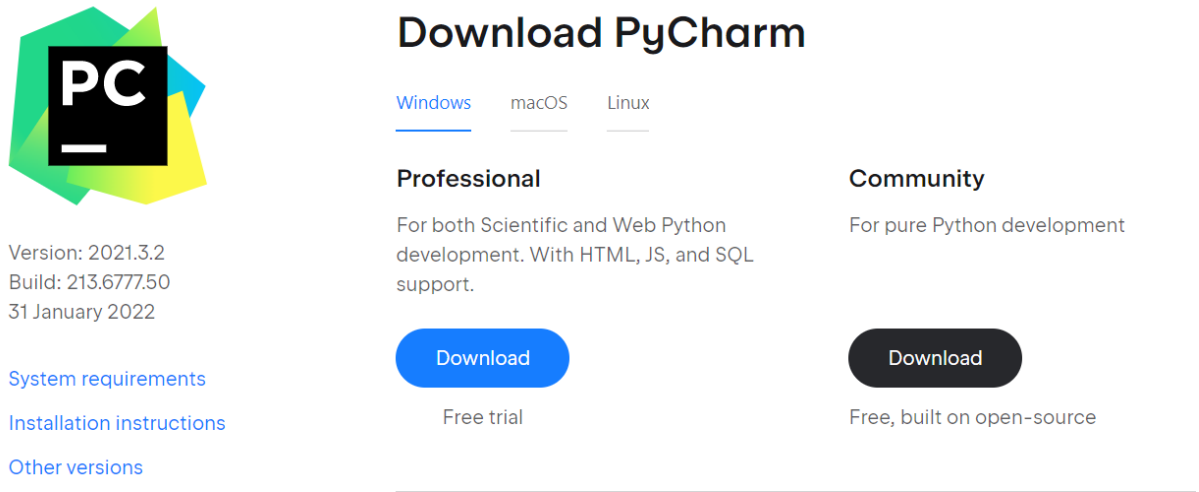
```
C:\WINDOWS\system32\cmd.exe

C:\Users\udayk>pip -V
pip 22.0.2 from C:\Users\udayk\AppData\Local\Programs\Python\Python39\lib\site-packages\pip (python 3.9)
```

We have successfully installed python and pip on our Windows system.

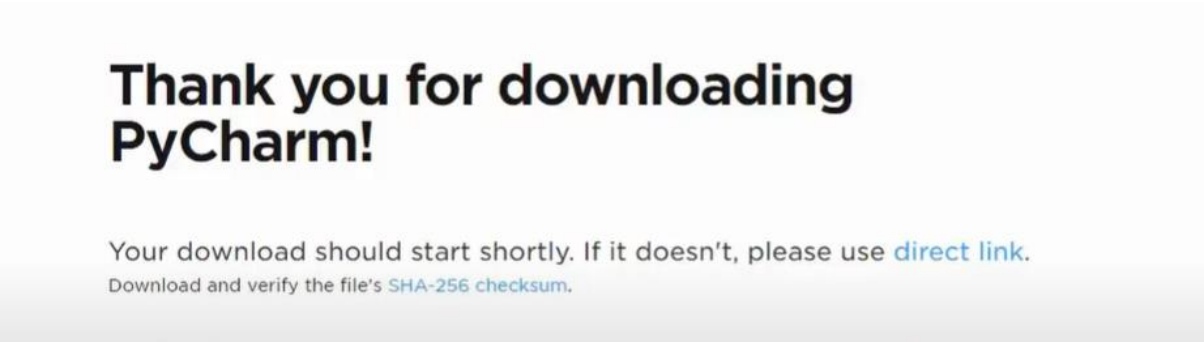
Installing PyCharm on windows

Step 1: Download python executable installer

Go to https://www.jetbrains.com/pycharm/download/#section=windows on browser and click on download **community** version of PyCharm.

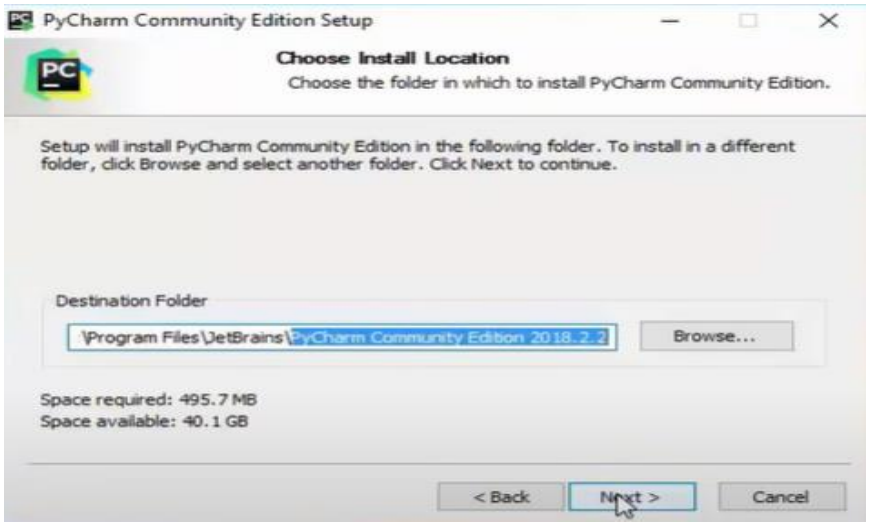


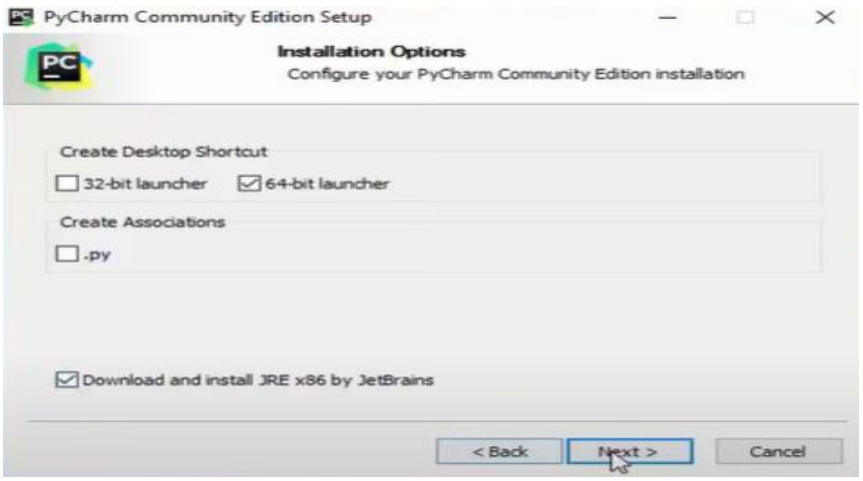
Once it you have clicked on it, PyCharm executable will be downloaded, and you can see below page.

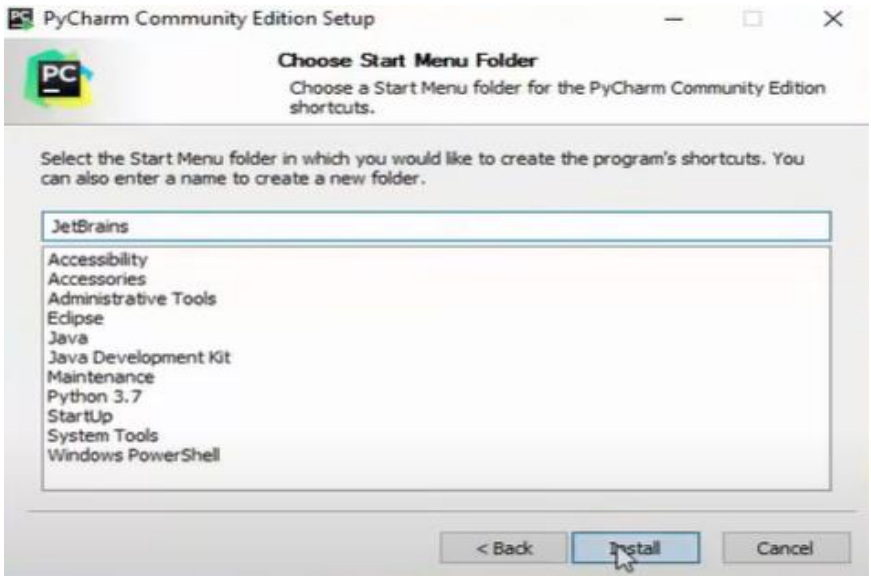


Step 2: Run executable installer

Run the installer, you can see below pop ups like location where PyCharm is installed on your machine, creating launcher shortcuts on your desktop, you can choose what is needed and click on install.



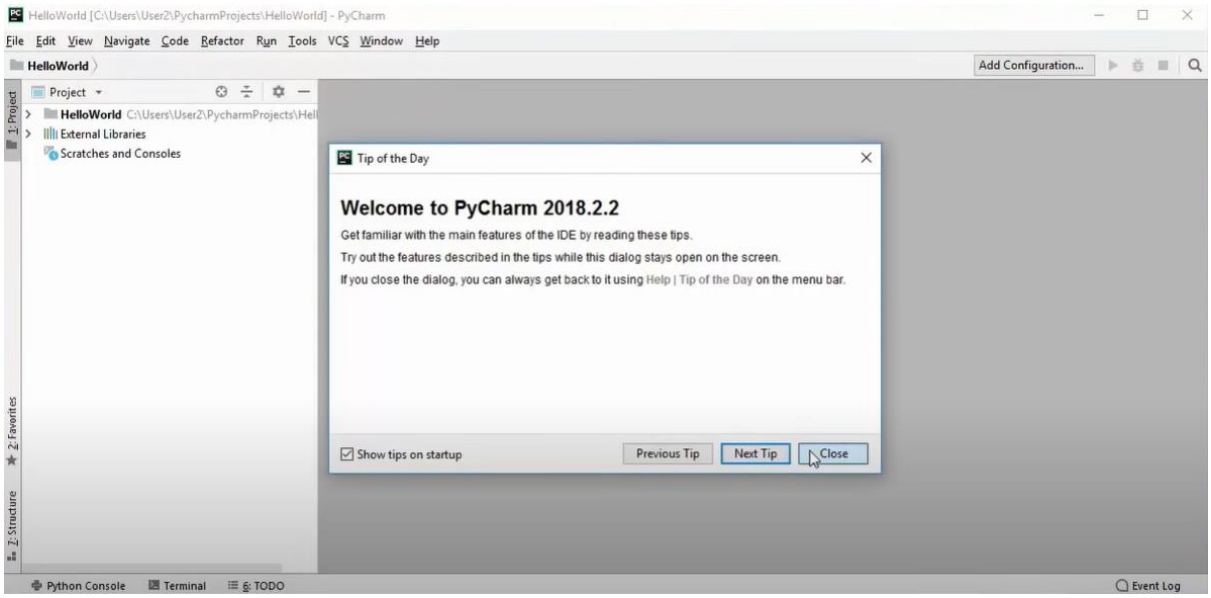




Once you have installed, the installation process will take few minutes to complete and once the installation is successful, then click on finish. You will be able to see a shortcut for PyCharm on your desktop and to open it.

Step 3: Open PyCharm IDE

Click on shortcut created on desktop to open it and accept the privacy policy. Then you can see PyCharm IDE.



We have successfully installed PyCharm on our Windows system.

Writing a Python Module

Steps:

1. Develop a feature function for the input
2. Use comments while writing function definition for everybody understanding
3. Do not use lower functions for whole input string in writing features. We can use in that lower function in conditions.
4. After writing feature function, put that code in a python file which will become a Module
5. Module name should be same as feature name
6. Use input string and schema parameters while developing feature, as we are using schema name parameter while calling feature functions in driver program.

Example Snippet:

In the below code snippet, we have created a module with name same as feature function

We have kept this code into a python file to make it a module, so that we can import this anywhere in our project and run independently.

This module is to handle the oracle input data, which is present in between when and then.

Module Name: when_then_inbetween.py

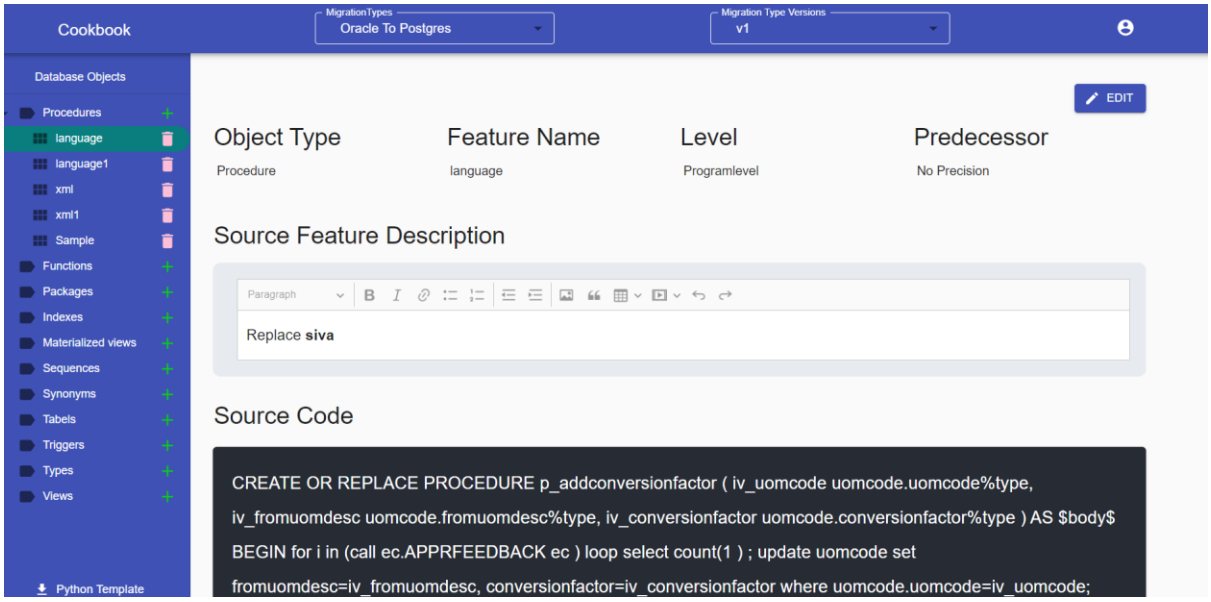
```python
import re


def when_then_inbetween(final_procedure,schema):
    if final_procedure:
        if 'when' and 'then' in final_procedure.strip().lower():
            when_then_data_1 = re.findall(r'\bwhen(.*?)then\b', final_procedure)
            for ele in when_then_data_1:
                if 'cursor_already_open' in ele.strip():
                    # logging.info("replacing 'cursor_already_open' key with ' duplicate_cursor ")
                    present = ele.lower().replace('cursor_already_open', ' duplicate_cursor ')
                    final_procedure = final_procedure.replace("when" + ele + "then",
                                                              "when" + present + "then")
        else:
            return final_procedure

    return final_procedure
```

We can use this function by importing:

from when_then_inbetween import when_then_inbetween

Using template.py:

- Download template.py from our application
- Write your feature function definition as part of main function declared in template.py and same can be inserted into feature code for conversion.
- Once you have done writing feature, add that into our react application where we can test whether that feature code is able to convert our input.



For adding new module into app, we need to click on plus sign on respective object, then you will be navigated to create page where you can provide different fields like feature name, level, predecessor, source description, source code, expected target code and conversion code(which will convert source code to actual target code).

Once you have given required fields, click on save, then convert.

Installing packages using Pip

Once you have downloaded python and pip on your machine, you can use this pip to install packages as shown below.

Step 1: Open command prompt or terminal in PyCharm IDE or any other IDE

Step 2:

Run **pip install package_name**

Example: If we want install package “Coverage”