

CSE 4850/6850

Python Development Environment

Instructor: AKM Kamrul Islam

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Dept. of Computer Science
Georgia State University

(Materials are highly adapted from different online sources)

Anaconda



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Description. Python is a widely used high-level, general-purpose, interpreted, dynamic programming language. Its design philosophy emphasizes code readability, and its syntax allows programmers to express concepts in fewer lines of code than would be possible in languages such as C++ or Java. The language ...

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Installing on Windows — Conda documentation
<https://conda.io/docs/user-guide/install/windows.html> ▾
Miniconda installer for Windows. Anaconda installer for Windows. ... You can change them later. When installation is finished, from the Start menu, open the Anaconda Prompt. ... are case-sensitive. EXAMPLE: The following command installs Miniconda for the current user without registering Python as the system's default.

Install Python on Windows (Anaconda) — Michael Galarnyk — Medium
<https://medium.com/.../install-python-on-windows-anaconda-c63c7c3d1444> ▾
Dec 24, 2016 - This tutorial is split into three sections. The first part is installing Anaconda. The second part is testing your installation (making sure conda works, dealing with path issues etc). Finally, the...

Anaconda (Python distribution) - Wikipedia
[https://en.wikipedia.org/wiki/Anaconda_\(Python_distribution\)](https://en.wikipedia.org/wiki/Anaconda_(Python_distribution)) ▾
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Anaconda Computer program

Anaconda is a freemium open source distribution of the Python and R programming languages for large-scale data processing, predictive analytics, and scientific computing, that aims to simplify package management and deployment. [Wikipedia](#)

License: New BSD License
Stable release: 5.0.1 / 25 October 2017; 51 days ago
Developer(s): Anaconda, Inc. (née Continuum Analytics)
Programming language: Python

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Anaconda 5.0.1 For Windows Installer

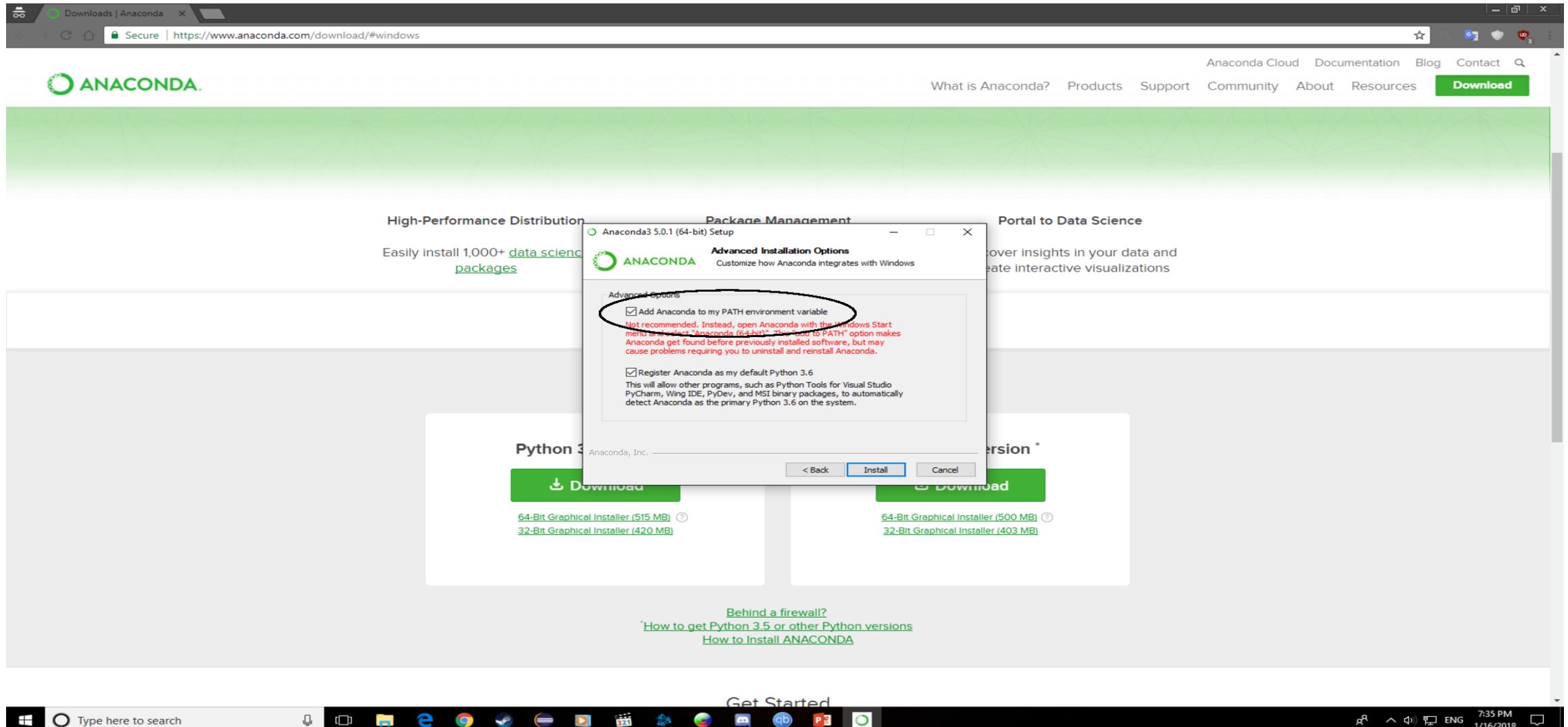
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PyCharm

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PyCharm: Python IDE for Professional Developers by JetBrains
<https://www.jetbrains.com/pycharm/>

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What's New in PyCharm 2017.3. Performance, Usability, and ...

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PyCharm - Wikipedia
<https://en.wikipedia.org/wiki/PyCharm>

PyCharm is an Integrated Development Environment (IDE) used in computer programming, specifically for the Python language. It is developed by the Czech company JetBrains. It provides code analysis, a graphical debugger, an integrated unit tester, integration with version control systems (VCs), and supports web ...

JetBrains PyCharm (@pycharm) · Twitter
<https://twitter.com/pycharm>

View TODOs by project, file, or scope #DriveToDevelop
pic.twitter.com/OkSF6h9...

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PyCharm

PyCharm Computer program

PC

PyCharm is an Integrated Development Environment used in computer programming, specifically for the Python language. It is developed by the Czech company JetBrains. [Wikipedia](#)

Written in: Java, Python

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A screenshot of the PyCharm website homepage. The header features the Jet Brains logo and navigation links for Tools, Languages, Resources, and Buy. A search bar and user account icons are also present. Below the header, there's a main banner with a yellow-to-green gradient background. It displays the PyCharm logo (PC icon and text), the tagline "Python IDE for Professional Developers", and a "DOWNLOAD NOW" button. A callout box labeled "WHY PYCHARM" is visible on the left. At the bottom, a cookie consent message from GitHub is displayed.



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The screenshot shows the PyCharm download page on the JetBrains website. At the top, there's a navigation bar with links for Tools, Languages, Resources, Buy, and a search bar. Below the navigation is a secondary navigation bar with links for PyCharm, What's New, Features, Docs & Demos, Buy, and a prominent blue 'Download' button. The main content area features the PyCharm logo (a green hexagon with 'PC' in white) and version information (Version: 2017.3.2, Build: 173.4127.16, Released: December 27, 2017). It also includes links for System requirements, Installation Instructions, and Previous versions. To the right, there are sections for 'Professional' (Full-featured IDE for Python & Web development) and 'Community' (Lightweight IDE for Python & Scientific development). Each section has a 'DOWNLOAD' button. A callout box at the bottom left encourages users to get the ToolBox App for ease of download. The URL in the browser address bar is <https://www.jetbrains.com/pycharm/download/#section=windows>.



JB Thank you for download! JetBrains s.r.o. [CZ] | https://www.jetbrains.com/pycharm/download/download-thanks.html?platform=windows&code=PCC

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Getting Started

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Welcome to PyCharm

PyCharm Version 2017.3.2

Create New Project Open Check out from Version Control

Configure Get Help

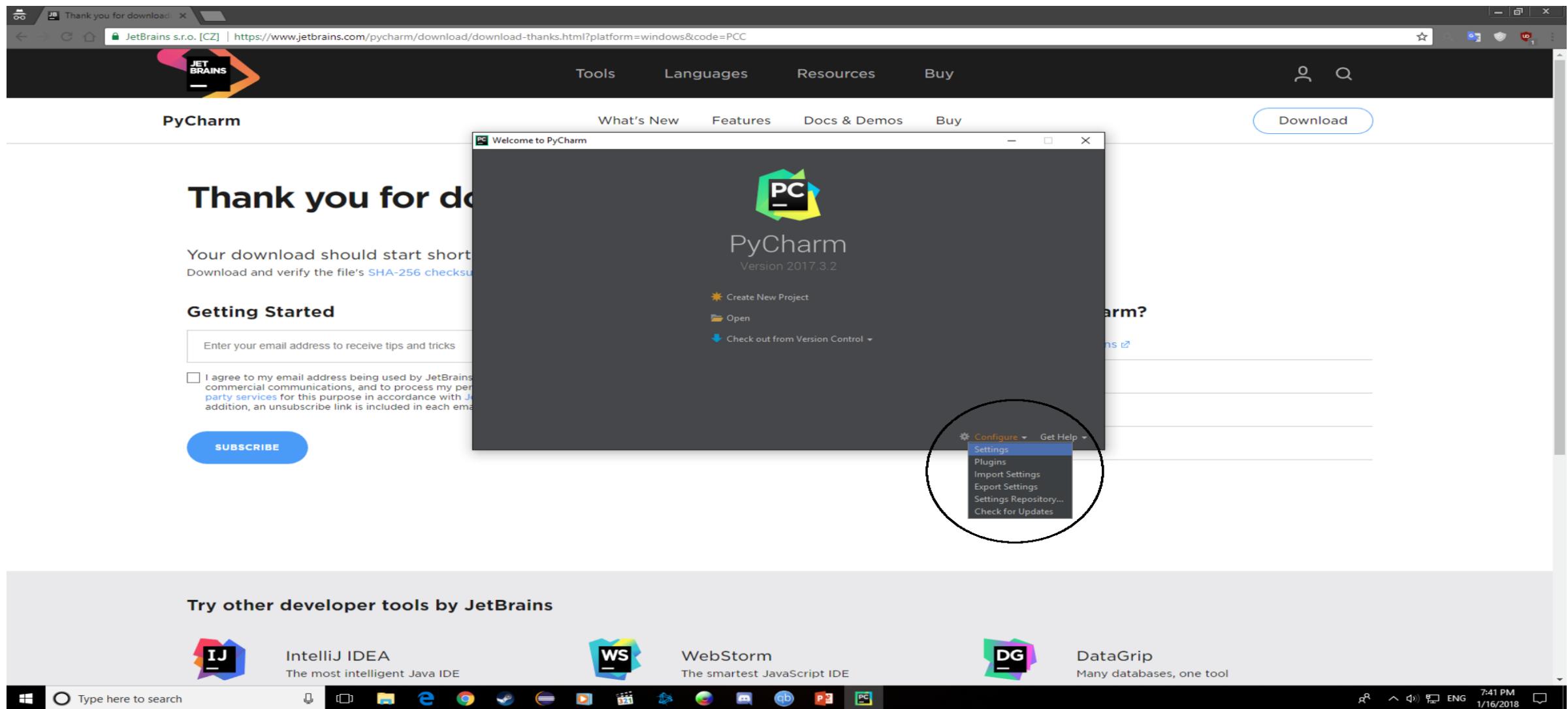
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The screenshot shows a web browser window with the JetBrains PyCharm download confirmation page. The page features a "Thank you for download" message, download instructions, and a "Getting Started" section with a newsletter sign-up form. A settings dialog box titled "PC Default Settings" is overlaid on the page. The dialog has a sidebar with categories like Appearance & Behavior, Editor, and Project Interpreter. The "Project Interpreter" category is selected and highlighted with a blue oval. The main pane of the dialog shows a table with columns "Package", "Version", and "Latest". A message at the bottom of the dialog says "Nothing to show". At the bottom right of the dialog are buttons for "OK", "Cancel", and "Apply".

Thank you for download!

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Getting Started

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PC Default Settings

Project Interpreter For default project

Project Interpreter: <No interpreter>

Package	Version	Latest
Nothing to show		

OK Cancel Apply

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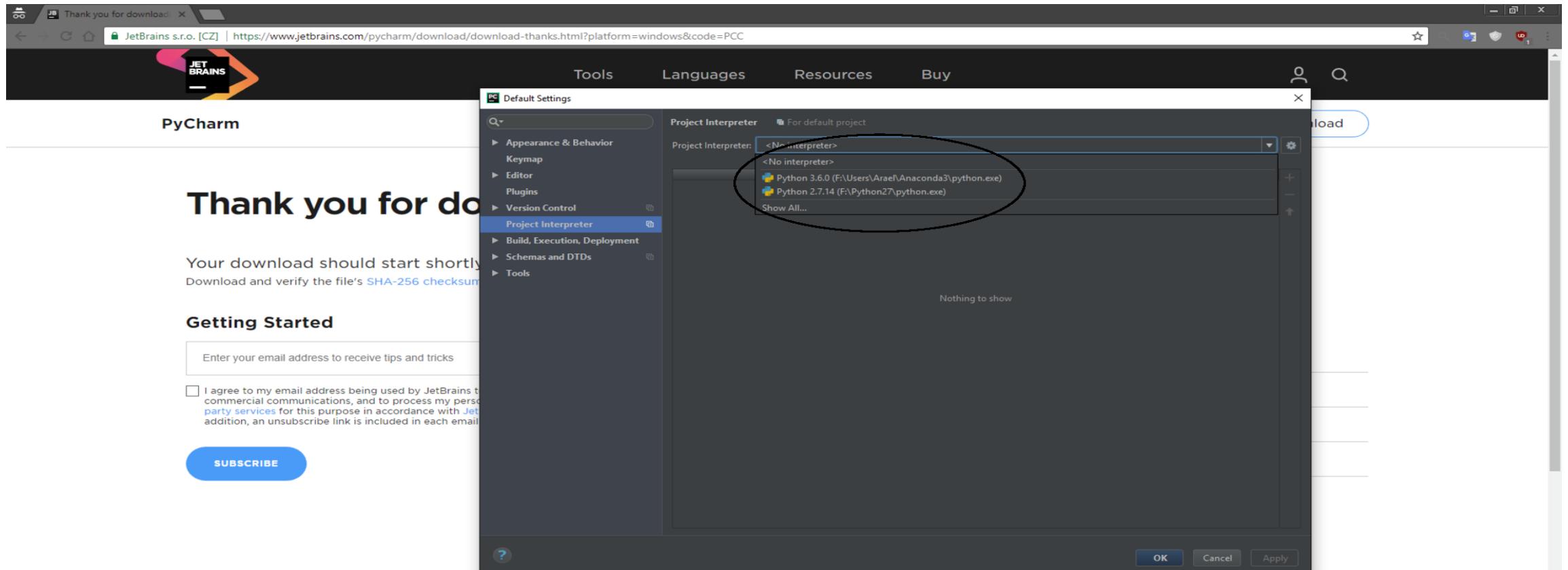
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The screenshot shows a web browser window with the JetBrains PyCharm download page. The main content includes a 'Thank you for download' message, download instructions, and a 'Getting Started' section with a newsletter sign-up form. A 'Project Interpreter' settings dialog is overlaid on the page, listing installed packages and their versions.

Project Interpreter (For default project)

Project Interpreter: Python 3.6.0 (F:\Users\Arael\Anaconda3\python.exe)

Package	Version	Latest
_ipyw_jlab_nb_ext_conf	0.1.0	0.7.10
alabaster	0.7.10	
anaconda	5.0.1	
anaconda-client	1.6.5	1.2.2
anaconda-navigator	1.6.9	0.1.0
anaconda-project	0.8.0	0.8.2
asn1crypto	0.22.0	0.24.0
astroid	1.5.3	1.6.0
astropy	2.0.2	3.0rc1
babel	2.5.0	2.5.3
backports	1.0	1.0
backports.shutil_get_terminal_size	1.0.0	1.0.0
beautifulsoup4	4.6.0	4.6.0
bitarray	0.8.1	0.8.1
bkcharts	0.2	0.2
blaze	0.11.3	0.10.1
bleach	2.0.0	2.1.2
bokeh	0.12.10	0.12.13
boto	2.48.0	2.48.0
bottleneck	1.2.1	1.2.1
bzip2	1.0.6	1.0.6
ca-certificates	2017.08.26	0.12.3
cachecontrol	0.12.3	2017.11.5
certifi	2017.7.27.1	1.11.4
cffi	1.10.0	3.0.4
chardet	3.0.4	6.7
click	6.7	0.5.2
cloudpickle	0.4.0	

OK Cancel Apply

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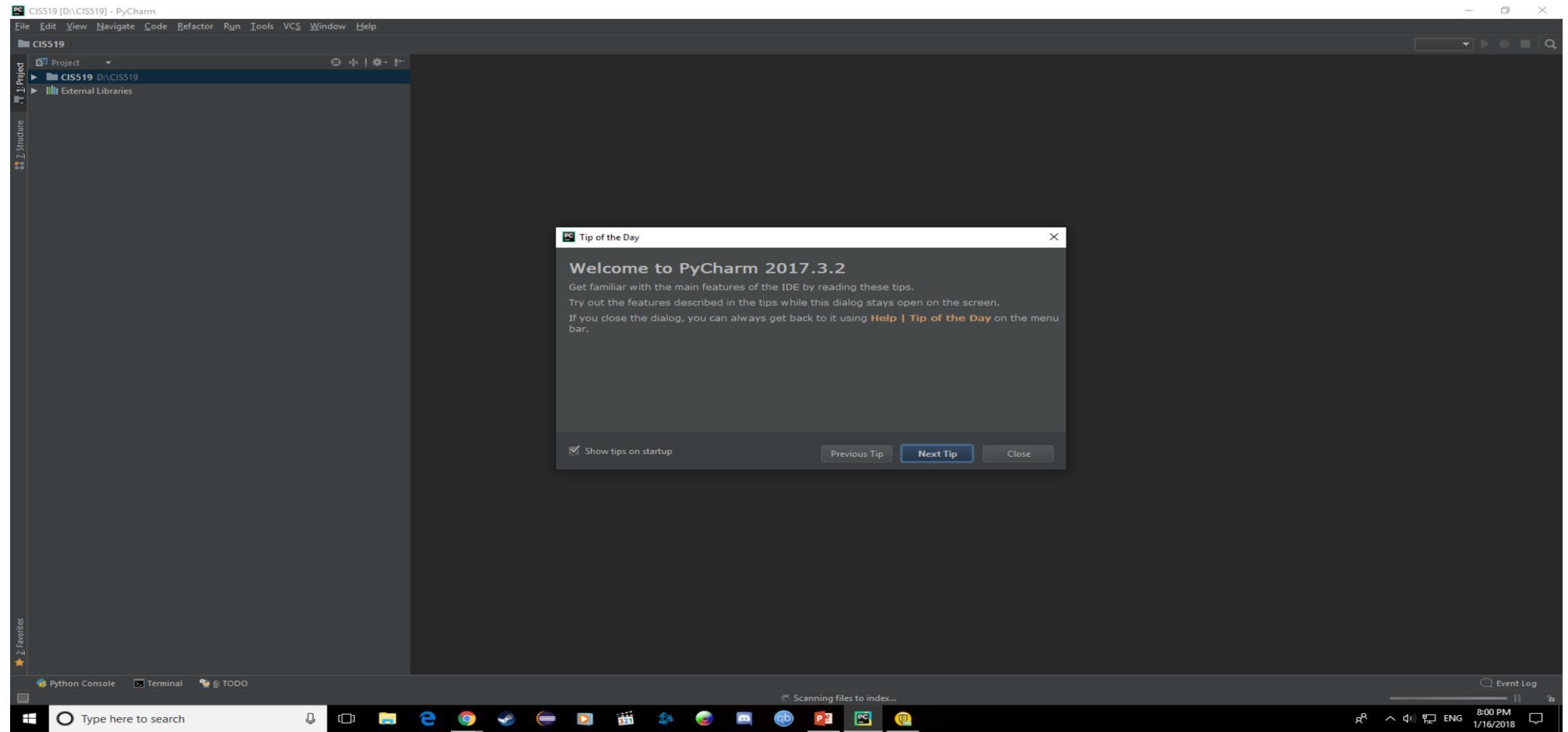
The screenshot shows a web browser window for JetBrains PyCharm. The main page has a "Thank you for download" message and a "Getting Started" section with a newsletter sign-up form. A modal window titled "New Project" is open in the center. The modal shows settings for a new project, including the location "D:\CIS519" and an "Interpreter" dropdown set to "Python 3.6.0 (F:\Users\Arael\Anaconda3\python.exe)". This interpreter selection is highlighted with a large oval. The modal also includes options for "Virtualenv", "Inherit global site-packages", and "Make available to all projects". At the bottom of the modal are "Create" and "Cancel" buttons.

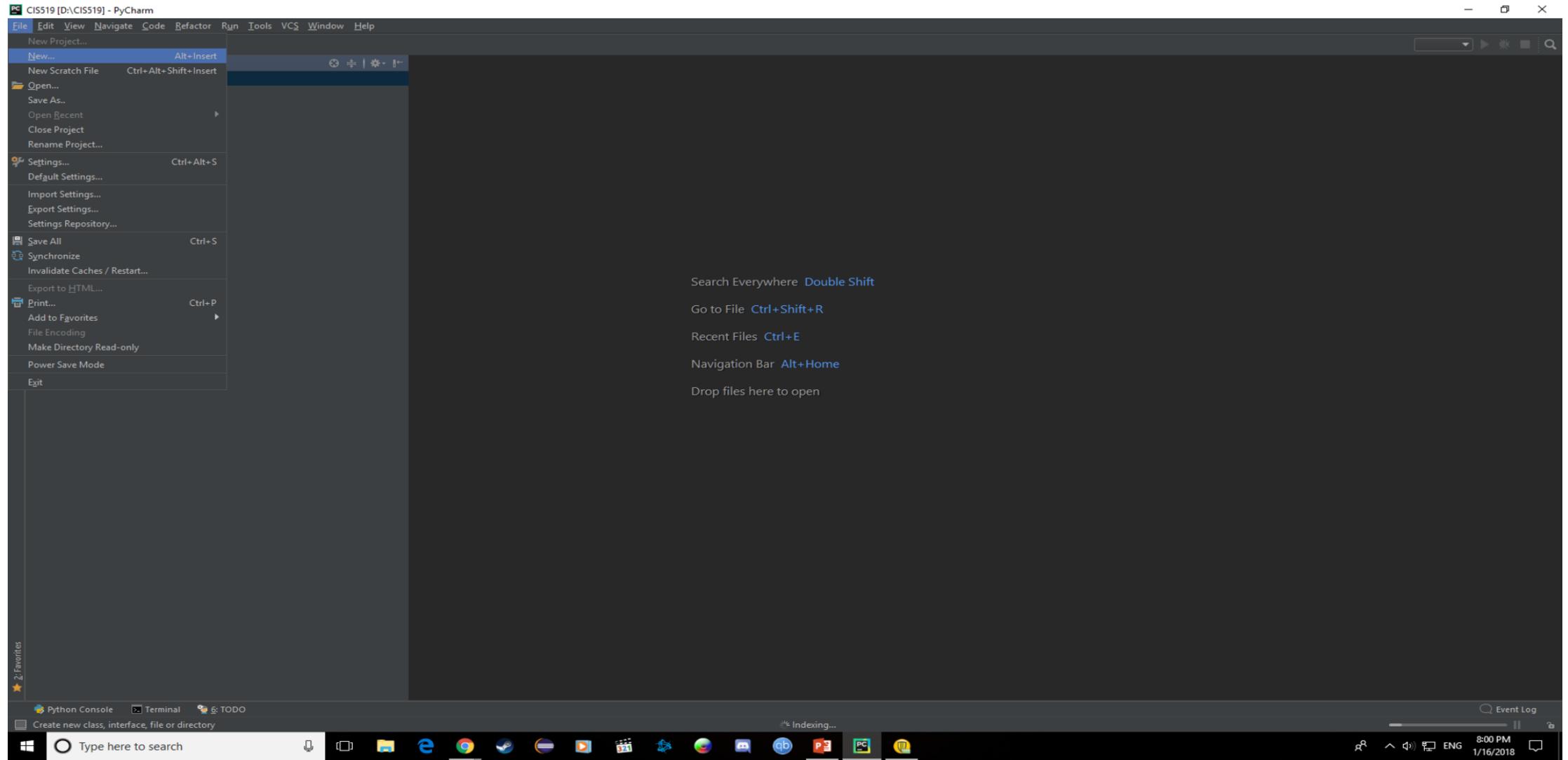
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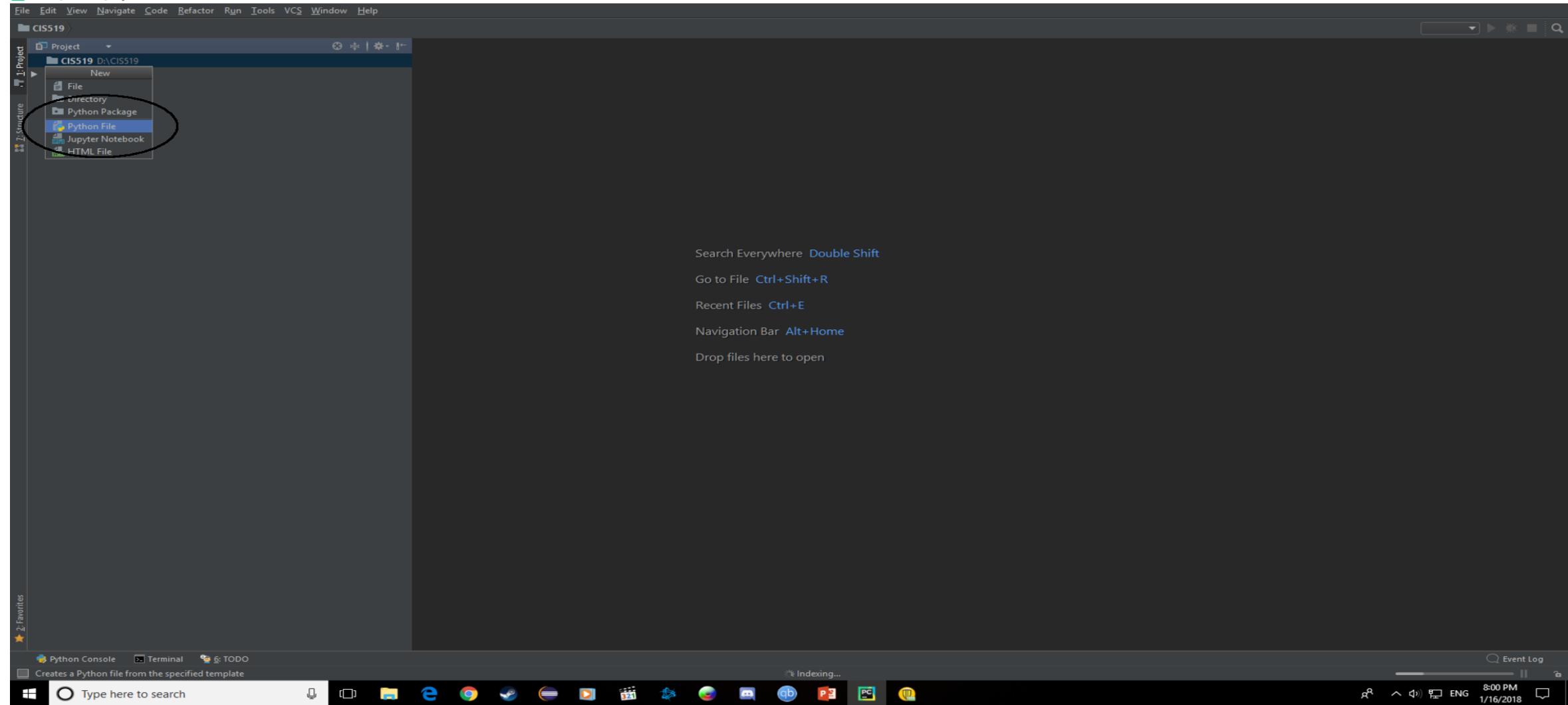
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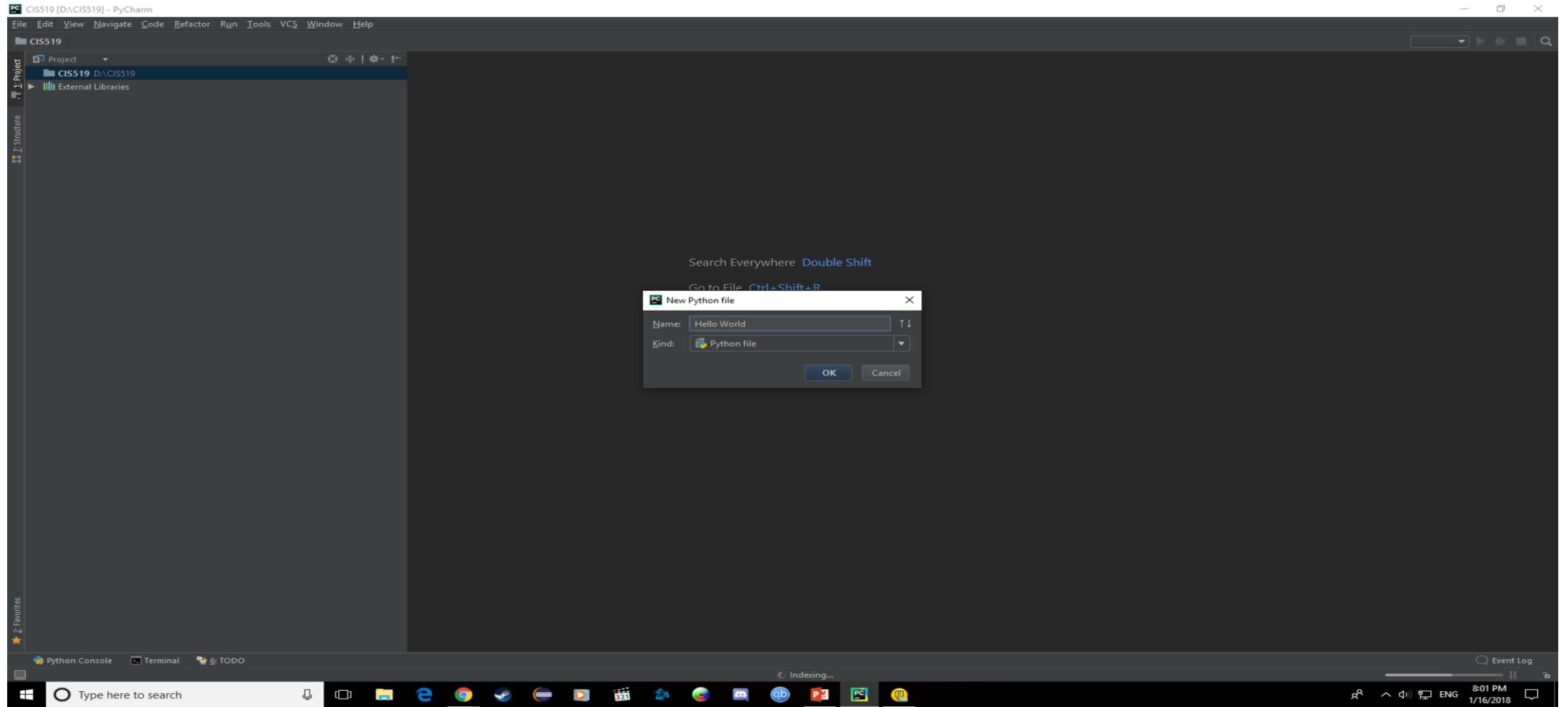
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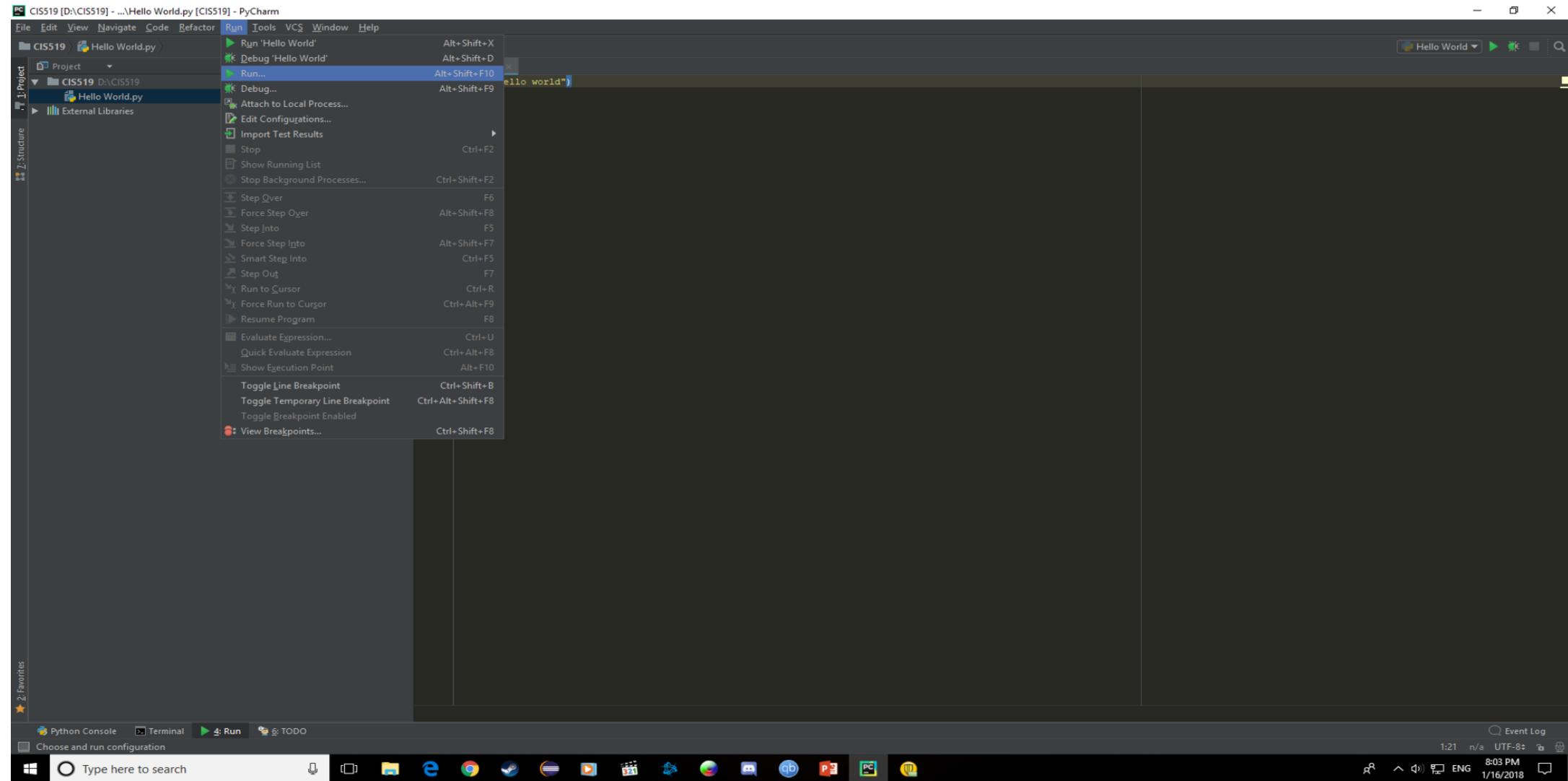




The screenshot shows the PyCharm IDE interface. The title bar reads "CISS19 [D:\CISS19] - ...\\Hello World.py [CISS19] - PyCharm". The menu bar includes File, Edit, View, Navigate, Code, Refactor, Run, Tools, VCS, Window, and Help. The left sidebar has sections for Project, Structure, and Favorites. The main editor window displays a single line of code: "print("hello world")". The bottom navigation bar includes tabs for Python Console, Terminal, and TODO, along with status information like PEP 8: no newline at end of file, 1:21 n/a, UTF-8, and an event log. The taskbar at the bottom shows various pinned application icons.

```
print("hello world")
```





A screenshot of the PyCharm IDE interface. The window title is "CIS519 [D:\CIS519] - ..\Hello World.py [CIS519] - PyCharm". The menu bar includes File, Edit, View, Navigate, Code, Refactor, Run, Tools, VCS, Window, and Help. The toolbar has icons for Project, Hello World, Run, and Help. The left sidebar shows a Project tree with "CIS519" expanded, containing "Hello World.py" and "External Libraries". A "Structure" tab is also visible. The main editor window displays the code "print('hello world')". A "Run" context menu is open at the bottom right of the editor, listing "Edit Configurations...", "Hello World" (selected), and "Press F4 to Edit". The bottom navigation bar includes tabs for Python Console, Terminal, Run, and TODO, along with system status indicators like date and time.

CIS519 [D:\CIS519] - ...\\Hello World.py [CIS519] - PyCharm

File Edit View Navigate Code Refactor Run Tools VCS Window Help

CIS519 Hello World.py

Project

1:Project CIS519 D:\\CIS519 Hello World.py External Libraries

Z:Structure

Hello World.py

1 print("hello world")

Run Hello World

F:\\Users\\Arael\\Anaconda3\\python.exe "D:\\CIS519\\Hello World.py"
hello world
Process finished with exit code 0

Python Console Terminal Run TODO Event Log

4:34 n/a UTF-8 8:04 PM 1/16/2018

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CIS519 [D:\CIS519] - ...\\HelloWorld.py [CIS519] - PyCharm

File Edit View Navigate Code Refactor Run Tools VCS Window Help

CIS519 > HelloWorld.py

Project CIS519 HelloWorld.py External Libraries

HelloWorld.py

```
1 print("hello world")
```

Command Prompt

```
D:\CIS519>python -i
```

Python Console Terminal Run TODO

PEP 8: no newline at end of file

Type here to search

Event Log

1:21 n/a UTF-8

8:07 PM 1/16/2018

The screenshot shows the PyCharm IDE interface. The main window displays a Python file named 'HelloWorld.py' containing the single line of code 'print("hello world")'. Below the editor, a 'Command Prompt' window is open, showing the command 'D:\CIS519>python -i'. The bottom status bar indicates the current time as 8:07 PM and the date as 1/16/2018.

PC CIS519 [D:\CIS519] - ...\\HelloWorld.py [CIS519] - PyCharm

File Edit View Navigate Code Refactor Run Tools VCS Window Help

CIS519 > HelloWorld.py

Project CIS519 D:\CIS519 HelloWorld.py External Libraries

1 | print("hello world")

Command Prompt - python3 -i

Python 3.6.3 |Anaconda, Inc.| (default, Oct 15 2017, 03:27:45) [MSC v.1900 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> -

Python Console Terminal Run TODO Event Log

PEP 8: no newline at end of file

Type here to search

1:21 n/a UTF-8 8:08 PM 1/16/2018

The screenshot displays the PyCharm IDE interface. The main window shows a project named 'CIS519' with a single file 'HelloWorld.py' containing the code 'print("hello world")'. Below the editor, a terminal window is open, showing the Python 3.6.3 command prompt on a Windows system. The user has entered '>>> -' into the terminal. The taskbar at the bottom shows various application icons and the system clock.

CIS519 [D:\CIS519] - ...\\HelloWorld.py [CIS519] - PyCharm

File Edit View Navigate Code Refactor Run Tools VCS Window Help

Project CIS519 HelloWorld.py External Libraries

Command Prompt

```
Python 3.6.3 |Anaconda, Inc.| (default, Oct 15 2017, 03:27:45) [MSC v.1900 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> exit()
D:\\CIS519
```

Python Console Terminal Run TODO Event Log

Type here to search

CIS519 [D:\CIS519] - ...\\HelloWorld.py [CIS519] - PyCharm

File Edit View Navigate Code Refactor Run Tools VCS Window Help

CIS519 > HelloWorld.py

Project CIS519 HelloWorld.py External Libraries

1 print("hello world")

Command Prompt

```
Python 3.6.3 |Anaconda, Inc.| (default, Oct 15 2017, 03:27:45) [MSC v.1900 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> exit()

D:\CIS519>python HelloWorld.py
```

Python Console Terminal Run TODO Event Log

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