القسم	المرحلة	المحاضرة	المادة	عنوان المحاضرة
علوم الحاسبات	الثانية	الثانية	برمجة – لغة بايثون	PyCharm IDE and Installation Guide

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PYTHON PROGRAMMING LANGUAGE

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Lecture Two
PyCharm IDE and Installation Guide

1. **Integrated Development Environment (IDE)**

➢ An Integrated Development Environment (IDE) is essential for Python programming because it significantly enhances productivity and efficiency.

➢ While it's technically possible to write and run Python code using a simple text editor, an IDE provides a comprehensive set of tools tailored for developers:

- **Code editing:** Syntax highlighting, auto-completion, and code formatting make writing code easier.

- **Debugging:** Helps identify and fix errors efficiently.

- **Testing:** Provides tools for writing and running tests.

- **Project management:** Organizes code files and dependencies.

- **Integration:** Often integrates with version control systems for collaborative development.

➢ In essence, an IDE streamlines the development process, allowing programmers to focus on writing code rather than managing the environment.

➢ Figure 2 show some of the most popular IDEs for Python development:

Figure 2: Examples of some Python IDEs.

➢ In this course, we will use the **PyCharm** as an Python IDE to efficiently run our python codes.

2. How to install the PyCharm on Window?

➢ To install PyCharm on a Windows system, follow these steps:

1. **Visit the PyCharm Download Page:**

   o Go to the PyCharm Downloads page (https://www.jetbrains.com/pycharm/download/?section=windows).

2. **Choose the Edition:**

   o PyCharm offers two editions:
     ▪ **Community Edition:** Free and open-source, suitable for most Python development needs.
     ▪ **Professional Edition:** Paid version with additional features for web development, database tools, and more.
   o Click the **Download** button for the edition you want.

3. **Run the Installer:**

- **Locate the Installer:** Once the download is complete, locate the installer file (**.exe**), usually found in your Downloads folder or the location you specified.

- **Start the Installer:** Double-click the installer file to run it.

- **Follow the Installation Wizard: Welcome Screen:** Click "**Next**" to proceed.

- **Installation Directory:** Choose the installation directory or use the default location, then click "**Next**."

- **Select Installation Options:**

  - **Create a Desktop Shortcut:** Check this option if you want a shortcut on your desktop.

  - **Update Path Variable:** Check this option if you want to add PyCharm to your system PATH.

  - **Associate** .py **Files:** Check this option if you want to associate Python files with PyCharm.

- Click "**Next**" after selecting your options.

- **Install PyCharm:** Click "**Install**" to begin the installation process. The installer will copy the necessary files and set up PyCharm on your system.

- **Complete Installation:** Once the installation is complete, you can choose to run PyCharm immediately by checking the "**Run PyCharm**" option.

- Click "**Finish**" to exit the installer.