

Name:Katricia Lopez
Sec: CS3C

Introduction to python

- Features of Python Language

-The syntax is plain and straightforward, almost like writing in English.

Object-oriented: Python is an object-oriented programming language that has highlights such as code reusability and measured quality. It supports highlights such as abstraction, encapsulation, inheritance and polymorphism.

- Advantages of Python

-Some of the main benefits of Python include its ease of use, concise and straightforward syntax, and vast libraries. Other Python advantages are its portability, versatility, large user base, and free & open source license.

- Disadvantages of Python Programming Language

-After the high memory usage, it's lack of speed is one of the biggest disadvantages of Python. As it executes the code one line at a time, the speed of execution often is hampered. Where speed is important for the project, Python cannot be used for coding.

- Applications of Python Programming Language

-Python is a computer programming language often used to build websites and software, automate tasks, and conduct data analysis. Python is a general-purpose language, meaning it can be used to create a variety of different programs and isn't specialized for any specific problems.

- What is Python?

-Python is a general-purpose, high-level programming language. With a strong emphasis on indentation, its design philosophy prioritizes code readability. Python uses garbage collection and dynamic typing. It is compatible with several programming paradigms, such as functional, object-oriented, and structured programming.

- Why Python?

-Even for individuals without prior programming knowledge, Python is an easy-to-learn and intuitive language for beginners. Its streamlined English-like grammar, which highlights innate languages and guarantees a simple learning curve for all, is why many find it useful.

- How to install Python?

-Step 1: Select Python Version. ...

Step 2: Download Python Executable Installer. ... Step 3: Run Executable Installer. ...

Step 4: Add Python to Path (Optional) ...

Step 5: Verify Python Was Installed on Windows. ... Step 6: Verify PIP Was Installed. ...

Step 7: Install virtualenv (Optional)

- How to install PyCharm (IDE)?

-You can download PyCharm from the JetBrains website

-Once you click on download, it will give you two options: Professional or Community. The professional edition of PyCharm requires a subscription, while the community edition is free.

-For this PyCharm tutorial, we will use the community edition. This will start downloading the .exe file. After the download is complete, run the file to install PyCharm.

-Click on Finish to complete the PyCharm Community edition setup.

-Now that the installation is complete, let us discuss the PyCharm UI in this PyCharm tutorial. In the PyCharm UI, your options include File, Edit, View, Navigate, Code, Tools, VCS, Window, and Help.

-If you want to make changes to the environment and the interface, click on File and go to Settings.

-Now, to write your Python script, go to File and select New Scratch File.

- Basic Python Program Structure

-Python programs are made up of statements, which are lines of code that tell the computer to perform a specific task. Statements can be grouped together into blocks, which are indented sections of code.

- Basic Python Program Explanation

-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.