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Lab Report

Department of Information and Communication Technology

Report No: 05
Report Name: Programming with Python
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Theory: Python is an interpreted, high-level and general-purpose programming language. Created by Guido van Rossum and first released in 1991, Python's design philosophy emphasizes code readability with its notable use of significant whitespace. Its language constructs and object-oriented approach aim to help programmers write clear, logical code for small and large-scale projects.

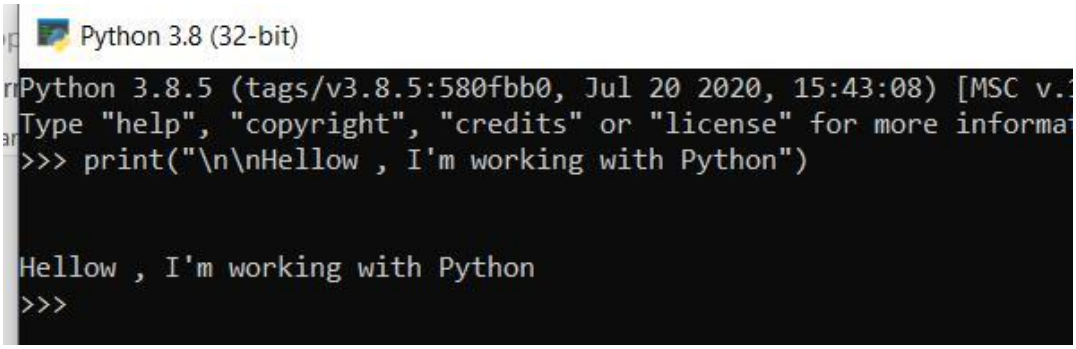
Python is dynamically typed and garbage-collected. It supports multiple programming paradigms, including structured (particularly, procedural), object-oriented, and functional programming. Python is often described as a "batteries included" language due to its comprehensive standard library.

Furthermore, because it's considered truly universal and used to meet various development needs, it's a language that offers a lot of options to programmers in general. If they begin working with Python for one job or career, they can easily jump to another, even if it's in an unrelated industry. The language is used for system operations, web development, server and administrative tools, deployment, scientific modeling and much more.
But, surprisingly, many developers don't pick up Python as their primary language. Because it's so easy to use and learn, they choose it as a second or third language. This may be another reason why it's so popular among developers.

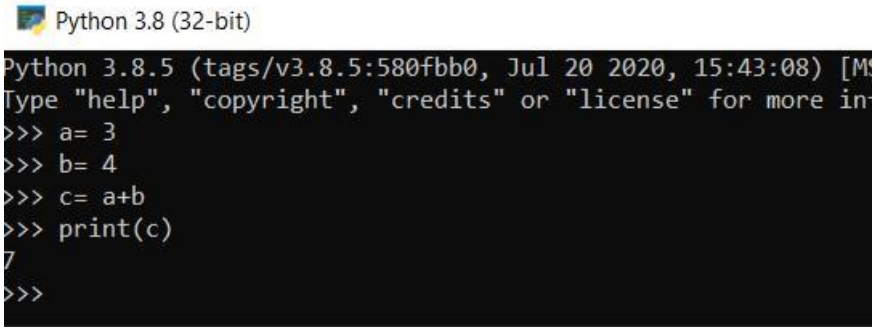
Plus, it just so happens that one of the biggest tech companies in the world Google uses the language for a number of their applications. They even have a developer portal devoted to Python, with free classes offered including exercises, lecture videos and more.
In addition, the rise in the use of the Django framework for web development and a decline in popularity of PHP has also contributed to Python's success, but, ultimately, it's the perfect storm just the right amount of developer and official support, as well as demand.

Some Code in python language :

1. **First code:**



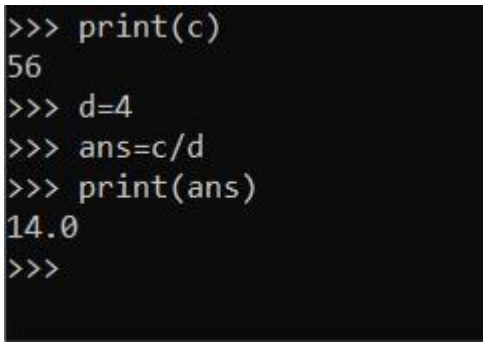
2. **Addition :**



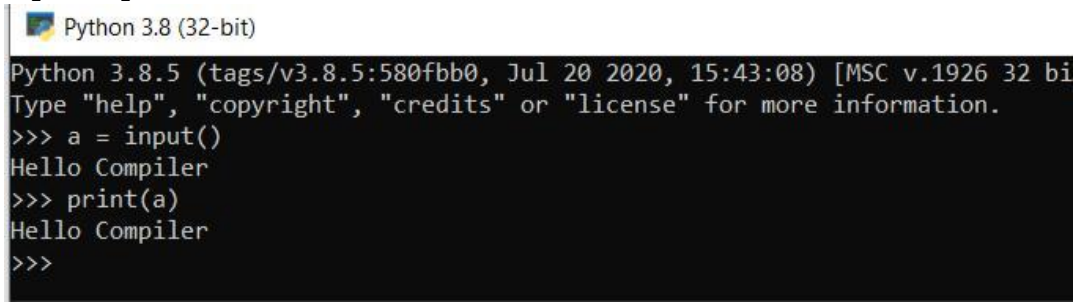
3. **Subtraction :**

4. **Multiplication:**

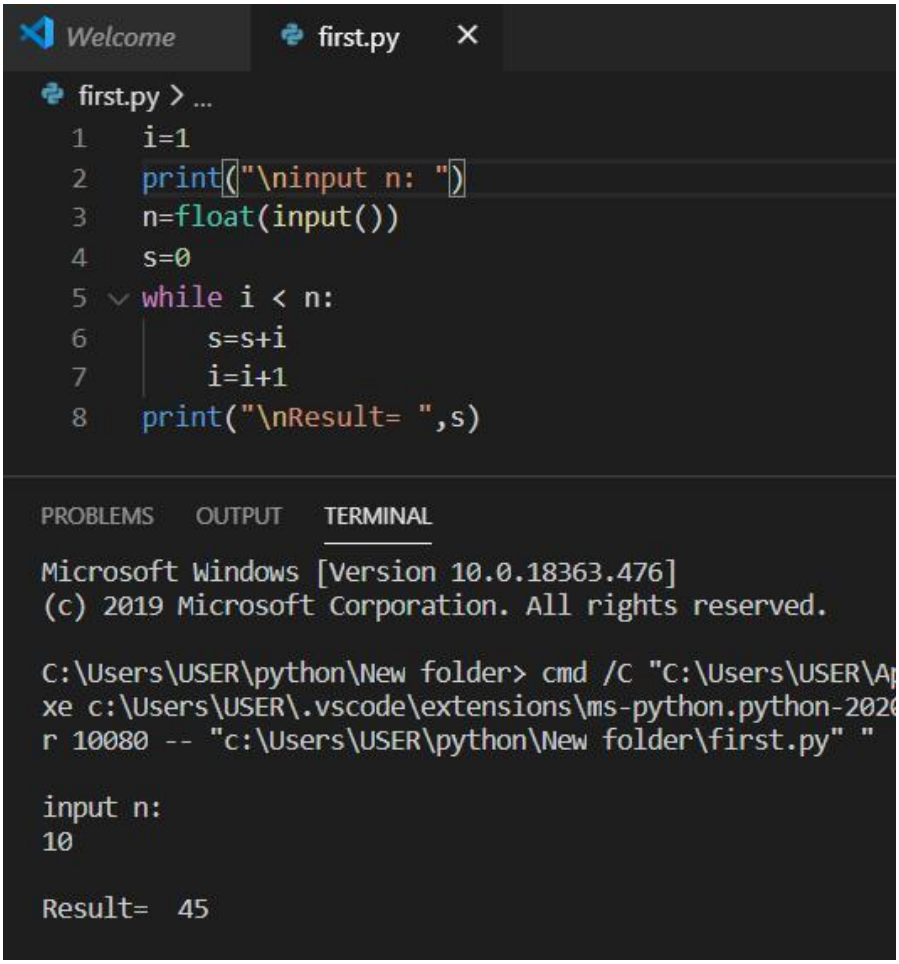
5. **Division:**



6. **Input & print:**



7. **Loop:**



Conclusion: Python interpreters are available for many operating systems. A global community of programmers develops and maintains CPython, a free and open-source reference implementation. A non-profit organization, the Python Software Foundation, manages and directs resources for Python and CPython development. Python is widely used, including by a number of big companies like Google, Pinterest, Instagram, Disney, Yahoo!, Nokia, IBM, and many others. The Raspberry Pi which is a mini computer and DIY lover's dream relies on Python as it's main programming language too.