**Definition:**

**Python:** Python is a high-level, interpreted programming language known for its simplicity, readability, and versatility. Guido van Rossum created Python, and it was first released in 1991. Python's design philosophy emphasizes code readability and ease of use, making it a popular choice for beginners and experienced developers alike.

**Invention:**

**Guido van Rossum**

* Python was conceived by Guido van Rossum, a Dutch programmer, in the late 1980s.
* The language's name is inspired by the British comedy group Monty Python, of which Guido was a fan.
* Guido aimed to create a language that was easy to read, write, and understand. The first official Python release, Python 0.9.0, came in 1991.

**Pros:**

1. **Readability:**
   * Python's syntax is designed to be clear and readable, reducing the cost of program maintenance and development.
2. **Versatility:**
   * Python supports both procedural and object-oriented programming paradigms, making it versatile for various application domains.
3. **Extensive Libraries:**
   * Python has a rich set of libraries and frameworks for tasks ranging from web development to scientific computing, enhancing productivity.
4. **Community and Documentation:**
   * A large and active community provides support, and extensive documentation makes it easy for developers to find help.
5. **Cross-Platform Compatibility:**
   * Python is platform-independent, allowing code to run on different operating systems with minimal or no modifications.
6. **Rapid Development:**
   * Python's simple syntax and dynamic typing contribute to faster development cycles.
7. **Integration Capabilities:**
   * Python easily integrates with other languages and technologies, making it a preferred choice for complex applications.

**Cons:**

1. **Execution Speed:**
   * Python's interpreted nature can result in slower execution speed compared to languages like C or C++.
2. **Global Interpreter Lock (GIL):**
   * The Global Interpreter Lock can limit the execution of multiple threads simultaneously, impacting performance in multithreaded applications.
3. **Mobile Computing:**
   * Python is not the best choice for mobile development, as it is not as commonly used as languages like Java or Swift in this domain.
4. **Design Restrictions:**
   * Python's design philosophy, while promoting simplicity, may restrict the use of certain programming constructs favored by other languages.
5. **Not Ideal for Some Applications:**
   * For resource-intensive tasks or low-level system programming, languages like C or C++ might be more suitable than Python.