

Programming Languages Research

Directions: Research the following computer languages on the Internet. Define them and compare how they are similar and different from each other. For example, what's the similarity between Java and C#?

| Language | Description | How it Compares/Contrasts with Similar Languages |
|-------------|---|--|
| C/C++ | Developed to do system programming for Unix | Older version of C# |
| C# | Object-oriented, aimed to combine C++ with Visual Basic | Modern version of C, with Microsoft .NET framework |
| Golang (Go) | Compiled programming language designed at Google | Like C, but with memory safety, garbage collection, structural typing, and CSP-style concurrency |
| Java | Programming language used to develop web-applications | Like JavaScript, but more of the backend to it |
| JavaScript | The frontend code of Java | Like Java, but is the frontend code of it |
| PHP | Server-side scripting language that is embedded in HTML | Like Java, but is used only as a server-side language whereas Java is used for both server-side and desktop programming |
| Python | Used for developing desktop GUI applications | Python is dynamically typed, whereas C# is statically typed |
| SQL | Used for database management and data manipulation | PHP is used to create a program, whereas SQL is used to interact with data sets, helps make the program work if it contains data |
| Swift | Used to develop applications for iOS (Apple Devices) | Swift is much faster than Python, as Swift was built with performance in mind |