J.pyL Language Evolution

Our language derives from various existing programming languages such as SQL, Python and Java. We have combined multiple elements within these languages to create a more compact and beginner friendly platform. Each of these prior languages has changed in many ways over the years and have led to revolutionary milestones in the world of programming. J.pyL strives to take a step even further into creating a more beginner friendly environment for up and coming programmers.

For starters, SQL was conceptualized in the early 1970’s and was used to organize data into tables with rows and columns, making it the perfect candidate for database management. Some basic commands that are derived from this language are *SELECT, INSERT, UPDATE, ADD,* and *DELETE.* Over time, additional features such as data and time features, foreign keys and case statements added to the already easy to adapt and learn language. It allowed for more complex database management techniques. Moving towards the early 2000’s, SQL adapted to the ever-changing flow of technology by adding support for XML files, user defined types, and started merging into the world of web applications. Up until now, SQL has remained a staple to ease of use and capabilities with backend design because of its uniqueness and readability with its user-friendly commands.

Python, a language that is already known for its ease of use has come a long way since the late 1980’s. In the beginning stages of development for Python, it held key features for data types such as strings, lists, and dictionaries into abbreviations ‘str’, ‘list’, and ‘dict’. A few years later, it would develop into a language that can deal with exception handling, its well-known syntax readability and web development. It most definitely went into the field of best beginner friendly programming languages to learn first since its simplicity was extraordinarily standing out, especially since most languages over complicated the printing out to terminal code. Python makes it much easier by utilizing it down into a simple “print()” line. It is easy for the user to remember and understand what is going to be put on the terminal with this simple but effective line. Nowadays, Python remains incredibly popular for its ability to analyze data and for its AI capabilities. Many libraries can now be used with this language to perform machine learning models, automation and visualization big data.

Java is one of the classic languages that has made a large impact on the horizons of technology and programming. One of the defining features of Java, was that it had simple syntax and had strong implications for object-oriented design. The coding structure for this language changed over time meaning that it updated with several enhancements. It is known for its applications in development with Android, cloud computing and still maintains its robust developer needs. From the primitive state it used to be in, Java is a much more complex language now since it is under a six-month release cycle, meaning that a newer version of Java is pushed out often. The tools and potential of Java is what leads us to include it aspects into the language we want to create.

J.pyL will take into account the most simple and essential foundations from each of these languages and form to form a basic environment for beginners to learn code. Elements from SQL will be taken to make algorithmic changes to data types such as its simple commands, Python for its syntax and Java for its code structure.