**DESIGN DOCUMENTS**

*PhởLang, a Vietnamese programming language*

**FOREWORDS**

I created this language not only to help non-English-speaking Vietnamese students understand the core concepts of programming, but also as a practical language that can be used for large-scale projects. In the ever-changing landscape of technology, the demand for excellent programmers grows increasingly, constituting a call for better education in technology, especially for a developing country such as Vietnam. However, from my experience, technology, to wit programming, has never been taken in serious consideration in many schools, and schools that do teach programming often use obsolescent languages, e.g. Pascal, resulting in the obfuscation of the wonderful world of computer science from many Vietnamese students. An issue that Vietnamese students who do learn programming often face is difficulty with learning English keywords, something prevalently intimidating for those who cannot speak English very well. This has led me to believe that the solution to this is to create a Vietnamese-based programming language. This will not only help students grasp programming concepts and create various applications within the comfort of their own mother-tongue language, but also act as a powerful tool to prototype large-scale projects that utilize complex elements of a programming language, e.g. scoping, exception handling, object-oriented features, memory management, and multithreading.

*"I have seen many programming languages in Vietnamese before. How is this any different?"*

I believe that what makes PhởLang stand out from other Vietnamese-based programming languages is its features. Most of the aforementioned languages are purely experimental/conceptual, whereas this language is full-fledged - complete with essential features that make up a modern programming language (e.g. well-defined syntax, datatypes, operators/expressions, control structures, functions/procedures, scoping, memory management, I/O, exception handling, object-oriented features, concurrency/multithreading). For many schools that use obsolescent languages like Pascal, PhởLang can bridge the gap by offering a modern, relevant alternative.

1. **Goals**

* Full-fledged programming language.
* Intuitive, easy-to-learn, suitable for both novice and proficient (Vietnamese) programmers alike.
* Educational with Vietnamese syntax, helping Vietnamese students understand programming concepts and build applications in their own language.

*ALLOTED DEVELOPMENT TIME: 2 YEARS*