**Paper Title**

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**ABSTRACT**

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KEYWORDS:Write your keywords here separated by commas.

**1. INTRODUCTION**

In today's dynamic technological world, the selection of an appropriate programming language is a crucial decision for developers starting a new project. The myriad of programming languages available, each tailored to specific domains, platforms, and learning curves, presents a formidable challenge. This challenge is further complicated by factors such as community support, industry trends, and associated costs, which significantly influence the success and efficiency of software development.

In response to this complexity, we propose the usage of expert systems as a promising approach to assist developers in the decision-making process of selecting a programming language.

This research aims to explore the effect of employing expert systems in the domain of programming language recommendation for various projects. The study aims to develop a framework that integrates multiple criteria essential for language selection, including domain suitability (such as web development, gaming, etc.), platform compatibility (desktop, mobile, gaming consoles, cross-platform), learning curve considerations (existing knowledge and willingness to learn), community support, adherence to industry trends, and cost implications (including licensing fees such as Oracle licenses). Additionally, the system will take into account users' previous knowledge and familiarity with related languages (e.g., C similar to C++).

By systematically analyzing these criteria and leveraging expert knowledge, the proposed system seeks to provide personalized and informed recommendations to developers, making the decision-making processes easier and ultimately enhancing the success and quality of software development projects.

**2. RELATED WORK**

In our research, we encountered limited or no prior studies that has the same objective as our approach. This is because our approach is a new application of expert systems. Nonetheless, we searched for similar research that is almost comparable to our approach. In 2011, (Shishehchi et al., 2011) used an ontology-based system for recommending learning materials for the Visual Basic.NET programming language, employing a semantic recommender system that considers the learner's knowledge level and requests. The system comprises several subsystems and components, including a knowledge-based system that covers the VB.NET ontology, learner performance evaluation, recommendation system, availability checker, knowledge evaluator, exam generator, request analyzer, and user interface.

Another interesting study is(Odiete et al., 2017). This research employed graph theory to recommend which programming language should be learned. It utilized social network analysis techniques to suggest programming languages to both new and experienced programmers. Additionally, the study utilized an expertise graph to determine the significance of a programming language within a community. The experts involved were sourced from the Stack Overflow community.

**2.1 Subtitle (if any)**

**2.2 Subtitle (if any)**

**3. PROPOSED APPROACH**

**3.1 Subtitle (if any)**

**3.2 Subtitle (if any)**

**4. RESULTS**

**5. CONCLUSIONS**

**REFERENCES**

Odiete, O., Jain, T., Adaji, I., Vassileva, J., & Deters, R. (2017). Recommending Programming Languages by Identifying Skill Gaps Using Analysis of Experts. A Study of Stack Overflow. *Adjunct Publication of the 25th Conference on User Modeling, Adaptation and Personalization*, 159–164. https://doi.org/10.1145/3099023.3099040

Shishehchi, S., Banihashem, Y., Azman, S., & Noah, M. (2011). Learning Content Recommendation for Visual Basic.Net Programming Language based on Ontology. *Journal of Computer Science*, *7*(2), 188–196.

Place your references here as a numbered list using APA style.

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