**Conclusion**

Rust is a static compiled language with a comprehensive type system and provenance concept that is both fast and memory economical. It may be used to operate performance-critical services while ensuring memory and thread safety, giving developers the ability to analyze at build time. Additionally, Rust offers excellent documentation and a user-friendly compiler with high-end tools like as embedded package management and a multi-editor with capabilities such as type checking and auto-completion. The Rust community is rather effective, and newer models and technologies to improve Rust are constantly published. Rust is predicted to be popular in the next years due to its ability and reputation for building safe systems. Because of its security, efficiency, and productivity, the development community will continue to value Rust.