

# **Title: RapidLink: A GoLang-based URL Shortener**

## **Abstract:**

RapidLink is a proficient URL shortening service developed using the Go programming language, offering users the convenience of compacting lengthy URLs into shorter, more manageable links. With RapidLink, users have the option to customize their shortened URLs or let the service generate one automatically. Leveraging Redis as the database, RapidLink ensures lightning-fast retrieval and storage of shortened URLs, enhancing user experience with swift redirection.

The core functionality of RapidLink centers around its simplicity and efficiency. Users are granted ten usages within a half-hour window, striking a balance between accessibility and resource management. Redis, a high-performance, in-memory data store, underpins the service, enabling rapid storage and retrieval of URL mappings, ensuring seamless redirection with minimal latency.

To ensure robustness and reliability, RapidLink is rigorously tested using Postman, a popular API testing tool. Postman's comprehensive testing suite validates RapidLink's endpoints, verifying seamless interaction between clients and the service. Through meticulous testing, RapidLink ensures consistent performance and adherence to industry standards, fostering user trust and satisfaction.

In summary, RapidLink stands as a testament to the fusion of cutting-edge technologies and streamlined functionality. With its intuitive interface, customizable options, and robust Redis integration, RapidLink offers a seamless solution for URL shortening needs, promising swift, reliable, and efficient service delivery.