**Software Development Life Cycle (SDLC) for Blog Page Website**

**4. Implementation (Coiding the Project)**

**Development Steps:**

* **Phase 1:** Set up the project structure and create the basic HTML templates for the homepage, profile, login, and post creation pages.
* **Phase 2:** Design the CSS styles and ensure a responsive layout for various screen sizes.
* **Phase 3:** Implement user authentication using Flask and MySQL.
* **Phase 4:** Develop the blog post creation and management system, allowing users to write, edit, and delete their posts.
* **Phase 5:** Test the entire application for functionality, security, and performance improvements.

**Best Practices:**

* Use properindentation and comments to improve code readability.
* Follow modular programming by breaking the backend logic into separate functions
* Secure user passwords using hashing before storing them in the database.
* Store configuration variables securely in a .env file.

**Version Control:**

* Commit changes to Git after completing significant tasks
* Write meaningful commit messages.
* Conduct peer reviews before merging code into the main branch to ensure quality and prevent bugs.

This phase transforms the design into a functional, secure, and user-friendly blog application.