RICHFIELD

Bachelor of Science in Information Technology

Information Technology Project Proposal for Small Scale Development Group

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Phase 1

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SS (Small Scale) Development Group

Proposal for Office Ticketing Software

SS Development Group is pleased to present a proposal to produce an advanced Office ticketing software developed using JavaScript coding. Our team comprises highly skilled professionals specializing in software development, ensuring a robust and customized solution tailored to meet your company's specific needs.

1. **Software Overview:** The Office ticketing software will serve as a computerized solution for managing appointments, client data, invoicing history, employee profiles, and access control within your organization. It will be designed with user-friendly interfaces and powerful functionalities to streamline operations and enhance productivity.

1.1. **Key Features:**

• Appointment Arrangements: Efficient ticket routing system as the designated department, upon ticket logging.

• Full-Scale Client Database: A centralized database for client structured, semi-structured and unstructured data, through SQL and NoSQL DMS software.

• Invoicing History Access: Provide seamless access to PDF and E-Billing format invoice reports for finance and stock departments.

• Employee Profiling: Create detailed employee specification profiles enabling tracking of monthly client interactions, performance metrics, client satisfaction levels, and client profile access restrictions.

• Access Control: Implement robust access control to secure data based on departmental roles.

2**. Software Program Languages:**

2.1. HTML 5: Provides structure to the application`s front-end interface.

2.2. JavaScript and TypeScript: Ensure functionality and interactivity of the application and avoid data ambiguity.

2.3. CSS: Styles the HTML 5 documents based on clients` interface appearance specifications.

2.4. PHP: Specifies the program recovery and web-server data layout, alongside data security specifications.

3. **Waterfall SDLC Software Development Life Cycle:**

3.1. Linear Sequential Flow:

• In the Waterfall model, the software development process follows a linear sequence of phases.

• Each phase must be completed before the next one begins, and there is no overlapping between phases.

• The progression resembles a waterfall, were progress flows steadily downward.

3.1.1. **Phases of the Waterfall Model:**

• Requirement Gathering and Analysis:

- All possible requirements for the system are captured and documented.

• System Design:

- Based on the requirements, the system design is prepared.
- This phase specifies hardware, system architecture, and overall structure.

• Implementation:

- The system is developed in small units (programs).
- Each unit is tested individually (Unit Testing).

• Integration and Testing:

- Units are integrated into a complete system.
- Comprehensive testing is performed to identify faults and failures. • Deployment of System:
- After functional and non-functional testing, the product is deployed in the customer environment or released to the market.

• Maintenance:

- Patches are released to address issues in the client environment.
- Product enhancements are also delivered.

3.2.1. **Advantages of the Waterfall Model:**

- Predictability: Phases are well-defined, leading to predictable outcomes.
- Structured Approach: Clear documentation and sequential flow aid project management.
- Stable Requirements: Assumes stable requirements from the start.

3.3.1. **Disadvantages of the Waterfall Model:**

- Rigidity: Changes are challenging once a phase is complete.
- Late Testing: Testing occurs only after implementation, which can lead to late defect detection.
- Limited Flexibility: Not suitable for dynamic or evolving projects.

3.4.1. **When to Use the Waterfall Model:**

- Clear Requirements: When requirements are well-defined and unlikely to change significantly.
- Small Projects: For small projects with straightforward goals.
- Non-Iterative Approach: When an iterative approach is not feasible.

3.5.1. **Applications of the Waterfall Model:**

- It has been used in various domains, including manufacturing, construction, and software development.
- However, its use has diminished with the rise of more flexible SDLC models.

4. **Conclusion**: SS Development Group is committed to delivering a high-quality Office ticketing software solution that meets your company's operational needs, enhances productivity, and promotes growth. We look forward to the opportunity to collaborate and bring this project to fruition. Thank you for considering our proposal. Sincerely, SS Development Group Member