

# **Software Development Life Cycle**

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## Document Control

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## 1. Introduction:

- **Overview:** This document outlines the Software Development Life Cycle (SDLC) process followed by Besseggen Infotech, a proprietary algorithmic trading firm.
- **Purpose:** The purpose of this SDLC is to ensure efficient and systematic software development practices that align with our business objectives and regulatory requirements.

## 2. SDLC Phases

Our SDLC consists of the following phases:

- **Requirements Gathering:**
  - Define clear objectives, constraints, and success criteria for each project.
  - Engage with stakeholders to gather and document functional and non-functional requirements.
- **System Design:**
  - Translate requirements into a detailed system design.
  - Define the system architecture, modules, and interfaces.
  - Document design specifications and data flow diagrams.
- **Development:**
  - Implement the system design using appropriate programming languages and frameworks.
  - Follow coding standards and best practices.
  - Conduct unit testing and code reviews to ensure code quality.
- **Testing:**
  - Develop test cases based on requirements and design specifications.
  - Perform different types of testing, including functional, integration, performance, and security testing.

- Document test results and track issues using a suitable defect tracking system.

- **Deployment:**

- Prepare the software for deployment in the production environment.
- Conduct user acceptance testing (UAT) and obtain necessary approvals.
- Coordinate with IT operations for seamless deployment.

- **Maintenance and Support:**

- Provide ongoing support and maintenance for the deployed software.
- Track and resolve reported issues in a timely manner.
- Apply necessary patches, upgrades, and enhancements as required.

### **3. Documentation and Version Control:**

- Maintain comprehensive documentation for each project, including requirements, design, test cases, and user manuals.
- Use a version control system to manage source code and track changes.

### **4. Security and Compliance:**

- Implement robust security measures to protect sensitive data and trading strategies.
- Ensure compliance with relevant regulations and industry standards, such as GDPR and SEC guidelines.

## **5. Change Management:**

- Establish a change management process to handle modifications to the software or its environment.
- Conduct impact analysis, obtain necessary approvals, and communicate changes to stakeholders.

## **6. Project Management:**

- Follow an agile or iterative project management approach to foster collaboration, adaptability, and continuous improvement.
- Utilize project management tools to track progress, assign tasks, and monitor milestones.

## **7. Quality Assurance:**

- Implement quality assurance processes to ensure that software meets the defined standards and requirements.
- Conduct regular code reviews, testing, and quality audits.

## **8. Training and Documentation:**

- Provide training sessions and documentation to educate users on software functionality and usage.
- Keep user manuals and system documentation up to date.

## **9. Performance Monitoring:**

- Implement monitoring and logging mechanisms to track system

- performance and identify bottlenecks.
- Conduct periodic performance evaluations and take proactive measures for optimization.

## **10. Risk Management:**

- Identify potential risks and develop risk mitigation strategies.
- Regularly review and update risk assessments.

## **11. Continuous Improvement:**

- Encourage feedback from users and stakeholders to identify areas for improvement.
- Conduct retrospectives to evaluate project outcomes and implement lessons learned.

This SDLC document serves as a guide for software development practices at Besseggen Infotech. It is subject to periodic review and updates to ensure it remains aligned with evolving business needs and industry standards.