Southern Cross University

ASSIGNMENT COVER SHEET

For use with online submission of assignments

Please complete all of the following details and then make this sheet the **first page of each file of your assignment – do not send it as a separate document.**

Your assignments must be submitted as either **Word documents, text documents with .rtf extension or as .pdf documents**. If you wish to submit in any other file format please discuss this with your lecturer well before the assignment submission date.

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Unit Name:	ISYS3001 Managing Software Development
Unit Code:	ISYS3001
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Assignment No.:	Assessment 2
Assignment Title:	Practical Skills
Due date:	29-01-24
Date submitted:	29-01-24

Declaration:

I have read and understand the Rules Relating to Awards (Rule 3 Section 18 – Academic Misconduct Including Plagiarism) as contained in the SCU Policy Library. I understand the penalties that apply for plagiarism and agree to be bound by these rules. The work I am submitting electronically is entirely my own work.

Signed: _____
(please type your name)
Date: _____

1. Change Management:

Institute a Formal Change Request Process: Create a clearly defined system for the submission, review, and approval of changes to promote collaboration and deter unauthorized modifications.

Establish Clear Ownership and Enhance Communication: Assign unequivocal ownership for changes and foster proactive communication regarding proposed changes across teams.

Conduct Impact Assessment and Implement Risk Mitigation: Assess the potential impact of each change on various components and proactively mitigate risks before proceeding with implementation.

Utilize Automated Testing: Harness automated tests to validate changes and address regressions without introducing performance bottlenecks.

2. Version Management:

Utilize a Centralized Version Control System: Choose a version control system such as Git to monitor changes, detect conflicts, and revert to previous versions if necessary.

Define Clear Branching and Merging Strategies: Establish transparent branching strategies (e.g., feature branches, hotfixes) and merging guidelines to handle parallel development and uphold code stability.

Implement Version Tagging and Labeling: Employ a well-defined tagging and labeling system for easy identification of specific versions during testing, deployment, or production environments.

Employ Dependency Management: Utilize tools like Maven or npm for dependency management to ensure consistent use of compatible libraries and frameworks across the project.

3. System Building:

Develop a Modular and Well-Defined Architecture: Design a modular architecture that isolates functionalities, promoting independent development and testing.

Adopt a Standardized Build Process: Implement a standardized build process (e.g., using Maven, Gradle, Make) to automate compilation, packaging, and linking of modules, reducing the potential for human error.

Implement Continuous Integration and Continuous Delivery (CI/CD): Set up a CI/CD pipeline to automate testing, integration, and deployment, enabling rapid feedback and minimizing the need for manual interventions.

Utilize Configuration Management Tools: Employ configuration management tools like Ansible, Chef, or Puppet to manage infrastructure and deployments consistently and repeatably.

4. Release Management:

Establish a Formal Release Process: Define a formal release process with distinct stages (e.g., development, testing, staging, production) and approval gates.

Conduct Thorough Pre-Release Testing: Perform comprehensive pre-release testing (e.g., functional, integration, performance) in dedicated environments to identify and address issues before deploying to production.

Develop a Rollback Plan: Create a rollback plan to revert to previous versions in case unforeseen issues arise in the production environment.

Automate Deployments: Utilize deployment automation tools like Kubernetes or Puppet to ensure consistency and minimize manual errors.

Additional Considerations:

Invest in Developer Training: Educate developers on collaboration best practices, version control, testing, and automation to foster a culture of quality and efficiency.

Continuously Measure and Iterate: Monitor the effectiveness of these processes continually and make adjustments based on new requirements and feedback.

Choose Appropriate Tools: Select tools that align with your team's preferences, project size, and technical stack.

Aussie Business Buzz Business Management System Request for Proposal (RFP)

1. Executive Summary

Aussie Business Buzz (ABB), a prominent technology retailer specializing in PCs, laptops, phones, routers, and device repairs, is soliciting proposals for a comprehensive Business Management System (BMS). This system aims to streamline operations across the current four branches and support future expansion. The BMS will consolidate vital functions such as customer relations, marketing automation, inventory control, and management reporting, enhancing operational efficiency and facilitating data-driven decision-making.

Justification for Procurement:

The procurement of a unified BMS is essential to overcome operational challenges and achieve a higher level of efficiency in customer relations, marketing, and inventory management. This centralized system will replace disparate solutions, providing a holistic view of the business operations.

2. System Requirements

Customer Relations Management (CRM):

- Securely capture and manage customer information.
- Include fields for customer details, purchase history, service requests, repair details, device data, problem reports, and work details, etc.

Justification: The CRM component is crucial for consolidating customer information. A unified database ensures a seamless customer experience, allowing staff to access comprehensive details, leading to improved service and personalized interactions.

Marketing Automation:

- Execute targeted digital marketing campaigns via email, social media, and other channels, leveraging existing customer data and seamlessly integrating with our separate website.

Justification: The need for targeted digital marketing campaigns arises from the growing importance of customer engagement. Integrating this with existing customer data and the website will enable a more effective marketing strategy.

Inventory Control:

- Track product and repair part stock levels across all locations.
- Automate reordering from wholesalers and provide real-time stock visibility.

Justification: Centralized inventory control is necessary for maintaining optimal stock levels and automating reordering. This ensures that products and repair parts are readily available, reducing delays in service and improving overall customer satisfaction.

Management Reporting:

- Generate comprehensive reports on sales, inventory, marketing performance, customer trends, and operational metrics, accessible to management throughout the business.

Justification: The requirement for comprehensive management reports stems from the necessity to make informed decisions. Accessible reports on various aspects of the business will empower management to strategize, allocate resources efficiently, and plan for future growth.

3. Key Considerations

- **Scalability:** The system must accommodate growth as we expand to new locations.
- **Flexibility:** Adaptability to evolving business needs and new technologies is crucial.
- **User-friendliness:** An intuitive interface for staff with varying technical expertise.
- **Security:** Robust data security measures to protect sensitive customer and business information.

4. Proposal Evaluation Criteria

Proposals will be assessed based on the following criteria:

- **Technical Solution:** Functionality, scalability, flexibility, security, and compliance with industry standards.
- **Experience:** Demonstrated expertise in similar projects and relevant client references.
- **Implementation Plan:** Proposed timeline, methodology, and project management approach.
- **Costs:** Total project cost, licensing fees, and ongoing maintenance requirements.
- **Innovation:** Unique features and value-added services beyond core requirements.

5. Communication and Questions

Submit questions via email to We commit to responding within 48 hours.

6. Additional Information

- **Timeline:** System implementation within six months of contract award.
- **Budget:** Open for negotiation based on proposals received.

- **Existing Systems:** Our website operates independently and is not included in this project scope.
- **Decision Process:** Shortlisted proposals will be invited for presentations and discussions. The final decision will be based on a comprehensive evaluation.

7. Contact Information

Aussie Business Buzz

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Thank you for your interest in this opportunity!