Kali Aero App Development

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A. Proposal Overview

A.1 Problem Summary

Kali Aero is a large aerospace company with over 11,000 employees in the Savannah area and 25,000 employees worldwide. The Savannah location has noticed that the company needs to be more active in the production area. After further review, production employees take longer than usual to complete their assigned work. When the work is not completed on schedule, employees are placed on mandatory overtime, where they must stay later than their regular work hours or work on their days off. As a result, the company must pay time and a half for any hours worked over 40 hours up to 56 hours and double time for any hours worked after 56 hours. The company is also losing contracts due to unhappy customers and taking their business to other aerospace companies, costing Kali Aero several thousands of dollars. The company determined that the source of this issue is employees needing direct access to workstations, which is causing a delay in daily operations.

As previously stated, the root of the problem is that not all employees have access to a work computer when needed. Employees constantly wait for a workstation to become available, leading to unnecessary downtime. This is a significant problem for production employees; they continually need access to several software and applications to complete their tasks. The software and applications required to complete these tasks are only available on company-provided workstations. Sometimes, an employee must complete a task on an aircraft that may be located away from their regular work area; the employee travels from one side of the building to the other to gain access to a workstation. Due to the lack of workstations available, the morale in the workplace has decreased drastically, causing employees to become frustrated and impatient

with not only having limited access to the materials needed to complete their work but also causing them to work mandatory overtime, taking away their time from their families.

To rebuild employee morale, regain customer trust, and save the company time and money, Kali Aero is looking to outsource an IT company to help assist with this obstacle. Monreaux Consultants, an It company, has been contracted to find a fast but reliable solution that can be implemented to help compensate for the lack of workstations and improve the workflow process.

A.2 IT Solution

Kali Aero implemented a solution to the challenges by contracting Monreaux Consultants, who proposed developing and implementing a Cross-Platform Employee Access Application. With this application, employees can securely access all software and applications needed to complete any task while connected to the company's network. These resources can be accessed remotely or from a mobile device. Employees can access the application's documents, software, and production tools. This will help to reduce downtown, improve productivity, and reduce project delays. Employees will be more efficient on the job and will not have to worry about mandatory overtime, boosting morale. Monreaux consultants will also ensure that the application complies with industry security standards and that employees only have access to what is needed based on their roles within the company.

A.3 Implementation Plan

The implementation plan to create and launch an application that enables employees at Kali Aero to use work-related tools from any device will be accomplished in multiple phases. These phases involve Initiation and Planning, Design and Development, Testing and Quality Assurance, Deployment, and Post-Deployment Support. Every stage has particular goals and

activities designed to guarantee the project's success, timely delivery, and adherence to budget constraints. The project will be executed in a way that includes the involvement of stakeholders and users, continuous improvement through iterations, and comprehensive testing to ensure the end product fulfills all specifications and provides value to the company. This approach reduces risks, guarantees it matches the users' requirements and permits ongoing enhancement, ultimately resulting in the successful implementation and acceptance of the application among Kali Aero employees.

B. Review of Other Works and B .1 Relation of Artifacts to Project Development

Review of work 1

"Employee productivity impacts every company's most important metric—revenue. But increasing productivity has little to do with clocking in more hours and everything to do with enabling employees to do their best work **(Gupta, 2024)**." Outlined in this blog is a list of different workplace applications, such as Google Workspace and Microsoft SharePoint, which discussed how these platforms are intended to enhance productivity through cloud-based storage, real-time collaboration, and robust security capabilities. These applications are designed to be compatible with third-party software, which supports the main objective of the app to align with existing company systems. The Kali Aero application can simplify processes and enhance resource availability by integrating comparable characteristics.

Review of Work 2

The blog about Forrester's take on the 2024 digital employee experience explains some key issues companies are up against, like improving various work models, safeguarding data privacy, integrating advanced technology, and backing frontline workers. It discusses the need

for user-focused design, smooth system integration, and continuous employee involvement to boost productivity and happiness. LumApps stands out as a top performer in digital employee experience platforms, known for their comprehensive solutions that enable organizations to achieve their goals in several key areas (Ndimba, 2024). This blog relates to the proposed development of my project as it emphasizes the importance of developing an app that enhances the employee experience and provides access to work-related systems. It also points out the need for a management interface to accommodate the needs of different employee groups.

Review of Work 3

This article explains the Agile Methodology. The Agile methodology is a flexible, customer-centric, and collaborative approach to software development and project management. (GeeksforGeeks, 2024). Agile focuses on delivering small increments of work at a time to allow customers to provide feedback and the ability to make continuous improvements throughout the process. Several different agile frameworks serve as a platform to assist with developing software applications, including scrum, kanban, lean, and scaled agile frameworks. The main limitation of using this methodology is that there needs to be more paper trail, making it hard if someone misses an important meeting. There is also a requirement for experienced programmers. Communication can sometimes be challenging. This article relates to the proposed development of the project by highlighting iterative development, ongoing feedback, and adaptability, which correspond with the project's requirement to create an application that fulfills the expectations of employees and stakeholders in real-time.

Review of work 4

Veracode's article "Third-Party Application Security Risks for Modern Companies" examines the security issues that third-party applications can bring to a business. It highlights vital risks like weak security measures, unaddressed vulnerabilities, and difficulties managing third-party vendors. The article stresses the importance of having a solid application security program that involves careful evaluation, ongoing monitoring, and frequent updates to reduce these risks. (Paganini, 2015). This article relates to the development of this app, as the app will connect with outside services; the risks mentioned in the article highlight the need for strong security practices. It is essential to make sure the app is secure and has no weaknesses to protect important company information and keep the IT system reliable. This article guides the security approach to reducing risks linked to third-party integrations in your app.

C. Project Rationale

The choice to pursue this project is based on business and technical needs at Kali Aero. With over 11,000 employees, the inability to quickly access workstations is causing delays in completing tasks. This situation reduces productivity and impacts overall efficiency, making it a serious issue. Developing an app that enables employees to access essential applications from any device can minimize downtime and boost productivity. Quicker task completion helps keep projects on track, benefiting the company's financial performance. Allowing employees to work from any device increases job satisfaction, as they are not restricted to specific workstations. This flexibility can also improve employee retention, showing the company’s dedication to modern work practices. A centralized platform for accessing work-related applications will simplify operations, ensuring all employees have the latest tools and information.

The project will establish a scalable and adaptable infrastructure that can respond to future technological advancements. As the aerospace sector changes, the ability to quickly integrate new tools and systems will be an advantage. By creating an in-house solution, the company can guarantee that the app meets security standards, safeguarding sensitive data from potential breaches that could arise with less controlled third-party applications.

This issue is crucial because it highlights a significant backlog in the workflow. When employees struggle to access necessary applications, the company risks falling behind on projects, which could result in financial losses and missed opportunities in a competitive industry. Fixing this problem helps the company improve its internal processes and boosts its standing in the aerospace market. This project makes sense because it meets an essential need at Kali Aero. It provides a solution that increases productivity, employee happiness, and safety. The suggested app will support the company's strategic goals, leading to lasting success.

D. Current Project Environment

The implementation and development of the cross-platform employee application aligns with the current organizational culture, environment, and strategy in several ways. The current organizational structure values employee empowerment, innovation, and efficiency. With this new application, employees can access all applications needed to complete their tasks, which aligns with prioritizing productivity and efficiency and allows employees the flexibility to work from any device. Regarding the environment, Kali Aero is a large aerospace organization that handles complex and tedious projects. This application can accommodate a large workforce (tailored to those using different devices and working in other areas), which will alleviate the problem promptly, and all the existing documents, systems, and applications will be readily

accessible on the app, resulting in a continuous workflow. Lastly, when it comes to strategy, all major companies have a common goal of enhancing operational efficiency, improving processes, and retaining their employees. This application will satisfy employees because they will be better equipped to perform their tasks effectively, reducing delays and improving the workflow.

E. Methodology

To implement the project completion, the agile methodology will ensure flexibility, provide incremental updates, and gather feedback throughout the project. The agile software development lifecycle includes five stages: ideation/planning, development, testing, deployment, and operations. In the ideation or planning stage, the product owner works with the stakeholders, developers, and future app users to determine the requirements for the app. In the development phase, the developers will design and implement features for the app, follow up with the stakeholders on the progress, and make adjustments as needed. This is one of the most extended phases. The next stage is the testing phase, where the features are added and tested to ensure functionality. The deployment phase is when the app is released for use. The last stage is the operations stage, where users provide feedback, and improvements are implemented.

F. Project Goals, Objectives, and Deliverables

F1. Goals, Objectives, and Deliverables Table

	Goal	Supporting objectives	Deliverables enabling the project objectives
1	Create a cross-platform employee application	1.a. Planning	1.a.i. Meet with stakeholders
			1.a.ii. Create a schedule/milestone
		1.b. Design and Development	1.b.i. Create prototype
			1.b.ii. Build App
		1.c. Testing	1.c.i. Validate app functionality
			1.c.ii Beta Testing
		1.d. Deployment	1.d.i. Training

			1.d.ii. Final Release
		1.e. Post Deployment	1.e.i. Support

F2. Goals, Objectives, and Deliverables Descriptions

- **Goal 1:** This project aims to develop and implement a cross-platform employee application that gives employees secure access to company documents, software, and applications from any device on the company network.
    - **Objective 1.a:** This will be the planning phase, where there is a meeting with stakeholders to determine project goals, scope, and key deliverables and also discuss some of the risks. Roles will also be assigned to build a team to carry out the project.
        - **Deliverable 1.a.i:** There will be an initial meeting with the stakeholders, employees, management, and IT staff to discuss their needs and requirements.
        - **Deliverable 1.a.ii:** A schedule will be developed where milestones will be set to meet to track our progress throughout the project.
    - **Objective 1.b:** This objective is where a detailed app design will be created using the requirements provided. The app will also be developed in iteration, ensuring that feedback is obtained throughout the process.
        - **Deliverable 1.b.i:** An interactive prototype will be built so that there is a visual of the app and how it will function. This is where the focus will be on the user interface design.
        - **Deliverable 1.b.i:** In iterative cycles, the app will be developed. Each iteration will focus on building specific components and features. At this

stage, there will also be a focus on integrating existing company systems and third-party applications.

- **Objective 1.c:** This objective focuses on testing the app for functionality, testing individual components, and validating the integration of all components.
    - **Deliverable 1.c.i:** App functionality is essential to ensure the app is reliable, secure, and user-friendly. Developers identify and resolve significant issues at this stage before releasing the app.
    - **Deliverable 1.c.i:** Beta testing will be done at this stage, where the app is deployed in a staging environment that mirrors the production environment for final testing. Then, it is released to a small group of users to test and provide feedback before the final launch.
- **Objective 1.d:** The deployment objective is the official rollout to the production environment for the employee's use.
    - **Deliverable 1. d.i:** At this stage, employees will be trained to understand how to use the app. At this stage, support will also be available to set up devices and answer any questions that may arise.
    - **Deliverable 1.d.i:** This will be where the application will be released for official use. It will be accessible to all employees with a device connected to the company’s network.
- **Objective 1.e:** This is the final objective. The app's performance will be monitored, and data and metrics will be collected.

- **Deliverable 1.e.i:** Support will be provided to handle any issues that may arise after the app is released. There will be updates based on user feedback.

G. Project Timeline with Milestones

Milestone	Duration (hours or days)	Projected Start Date	Anticipated End Date
Project planning	Two weeks	September 16, 2024	September 27, 2024
Prototype and Design Completion	Three weeks	September 30, 2024	October 18, 2024
Completion of App Development	Five weeks	October 21, 2024	November 29, 2024
Release for Beta Test	Two weeks	December 2, 2024	December 13, 2024

H. Outcome

The anticipated outcome of the project is the successful design and implementation of a cross-platform employee application that allows Kali Aero employees to access work-related applications from any device on the company's network. The app will integrate with existing company systems, support third-party applications, and include a user role management system. Employees will have access to all work documents, software, and production tools within the application. The completion of the app will solidify the current issue of delayed production due to the shortage of workstation availability.

Key performance indicators (KPIs) will be used to track and measure the project's overall success. Employee utilization will be monitored within the first three months after the app is

released, aiming at least 80% utilization. Job completion rates will also be tracked to see if the time it takes to complete a job is reduced by 25% within the first six months after the app launch. A survey will also gauge user satisfaction with a target 85% or higher satisfaction rate. When employee utilization has reached an uptime of 98%, the application will be considered a success.

I. References

References

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Appendix A

Title of Appendix

Not required for Task 2. Put any supporting material in these appendices.

Appendix B

Title of Appendix

Not required for Task 2. Put any supporting material in these appendices.

Appendix C

Title of Appendix

Not required for Task 2. Put any supporting material in these appendices.

Appendix D

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