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PROPOSED TITLE

INDUSTRY INCIDENT MANAGEMENT COLLABORATIVE SYSTEM

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1. Introduction/Background

A collaborative system is a platform or software that enables multiple individuals or groups to work together towards a common goal, regardless of their physical location. It is designed to foster cooperation, communication, and coordination among team members, resulting in increased efficiency and productivity. Collaborative systems come in various forms, ranging from project management software to team communication tools, and can be customized to meet the specific needs of a particular business or team.

By utilizing a collaborative system, organizations can break down silos and foster a culture of teamwork, enabling team members to share information, collaborate on projects, and work towards common goals more effectively. In conclusion, a collaborative system is a powerful tool that can enhance collaboration, communication, and productivity in today's fast-paced business environment. I encourage you to consider incorporating it into your organization's workflow to reap the benefits of teamwork and increased efficiency.

2. Motivation

A collaborative system provides a platform that allows us to collaborate more effectively and efficiently, regardless of our physical location. By utilizing a collaborative system, we can break down barriers between departments, share knowledge and resources, and work together towards common goals. Building a collaborative system also fosters a culture of collaboration, which is critical for our success. When team members are encouraged to collaborate, they are more likely to share their expertise, ideas, and feedback. This leads to better decision-making and increased creativity and innovation.

Furthermore, a collaborative system enhances communication and coordination among team members, resulting in increased productivity and efficiency. By enabling team members to work together in real-time, we can avoid delays and minimize errors, leading to better results.

3. Problem Statement

When a team is working on a project, it is essential that team members communicate and share information effectively. However, sometimes team members may not communicate well, leading to misunderstandings and mistakes. Lack of communication also leads to difficulty in coordinating tasks.

Time zone differences can create challenges in global communication and coordination as it becomes necessary to navigate varying working hours and scheduling conflicts across

different regions. Organizations and teams operating in different time zones need to find strategies to effectively manage time differences to ensure seamless collaboration and minimize delays.

Information overload refers to the excessive amount of information that individuals are exposed to, which can lead to difficulties in processing, organizing, and prioritizing information Johnson, C. D. (2018). In today's digital age, where information is readily available and constantly streaming in various forms, individuals may struggle to filter out relevant information and focus on what truly matters. This can hinder productivity, decision-making, and overall efficiency.

Lack of transparency refers to a situation where there is a lack of openness, clarity, or visibility in communication or decision-making processes within an organization. When transparency is lacking, employees may feel uninformed, uncertain, or excluded from important discussions, leading to decreased trust, engagement, and collaboration. Transparent communication, on the other hand, promotes a culture of trust, enables better decision-making, and fosters a sense of inclusivity and accountability among team members Adams, R. M., & Martinez, L. C. (2021).

A collaborative system can help by providing a centralized platform for team members to communicate, share information and ensure that everyone is working towards the same goal with the use of task management and monitoring progress.

4. Objectives

To Improved communication, to increased productivity, to enhanced teamwork, and improved decision-making are essential elements for any successful organization. By prioritizing effective communication channels and strategies, teams can collaborate seamlessly, share information, and align their efforts towards common goals. This leads to improved productivity as employees can efficiently coordinate tasks, exchange ideas, and address any challenges that may arise. Clear and open communication fosters a positive work environment, boosts employee engagement, and reduces misunderstandings or conflicts that can hinder progress.

Furthermore, enhanced teamwork is crucial for achieving collective success. When individuals work together harmoniously, leveraging their diverse skills and perspectives, they can accomplish more than they could individually. Effective collaboration nurtures creativity,

innovation, and problem-solving capabilities within the team. By encouraging open dialogue, fostering a supportive culture, and establishing channels for knowledge sharing, organizations can leverage the collective intelligence of their employees, resulting in higher-quality outcomes and increased efficiency.

In addition to these interpersonal benefits, organizations can also foster scalability and cost-effectiveness through improved communication and teamwork. By streamlining communication processes, implementing efficient collaboration tools, and leveraging technology, organizations can scale their operations without sacrificing quality. Effective communication and teamwork enable seamless coordination across teams and departments, facilitating the efficient allocation of resources and reducing redundancies. This, in turn, leads to cost-effectiveness as the organization optimizes its processes, minimizes errors, and maximizes output, ultimately driving growth and profitability.

5. Justification (Option)

A collaborative system is needed to improve communication, enhance teamwork, increase productivity, promote transparency and accountability.

6. Delimitation

My delimitations or limitations may include focusing on essential features that meet core needs, prioritizing compatibility with specific platforms, limiting scalability considerations to a smaller user base, implementing basic security measures while leaving out advanced features, and excluding extensive integrations with external systems. These delimitations help balance time, resources, and immediate user needs, with the understanding that further improvements can be made in future iterations to enhance functionality, scalability, security, and integrations.

7. Project Constraints

Time constraints require careful planning and efficient time management to meet project deadlines, given that I am a junior developer this element may be flagged as a risk. Budget constraints necessitate resource allocation, I will be the only developer responsible to rollout this project and cost management to ensure the project stays within the allocated financial resources, I may need to roll this prototype out with the what I have at hand as far as Finances are concerned. Technical constraints must be considered to address compatibility issues, infrastructure limitations, and specific technical requirements. User constraints require understanding and meeting the needs and expectations of the project's target users. Regulatory constraints involve complying with relevant laws, regulations, and

industry standards. Cultural constraints call for sensitivity and inclusivity in project design and implementation to accommodate diverse cultural backgrounds. Effective management of these constraints throughout the project lifecycle is crucial for achieving project goals and ensuring successful outcomes.

8. Literature Review

A collaborative system is a platform or software that allows individuals or groups to work together towards a common goal or objective. Collaborative systems have become increasingly important in modern organizations, as they enable teams to work together more effectively and efficiently. In this literature review, we will examine some of the key research on collaborative systems, including their benefits, challenges, and best practices.

Benefits

One of the key benefits of collaborative systems is their ability to enhance team productivity and creativity. According to a study by Bughin et al. (2017), collaborative technologies can increase productivity by up to 30% in some cases. Collaborative systems can also help to foster innovation and creativity by facilitating idea sharing and brainstorming (Dugosh & Paulus, 2005).

Another benefit of collaborative systems is their ability to improve communication and knowledge sharing among team members. Research has shown that effective communication is critical for team performance (Hackman, 1987), and collaborative systems can help to overcome some of the barriers to effective communication such as geographic distance and time zone differences (Maznevski & Chudoba, 2000).

Challenges

Despite their many benefits, collaborative systems also present some challenges. One of the key challenges is user adoption, as users may be resistant to change or may lack the necessary skills to use the system effectively (Venkatesh et al., 2003). To address this challenge, it is important to provide adequate training and support to users, and to involve them in the development and testing of the system (Wasko & Faraj, 2005).

Another challenge of collaborative systems is data security, as these systems involve the sharing of sensitive or confidential information. It is important to implement appropriate security measures such as access control, encryption, and data backup to ensure that data is protected from unauthorized access or theft (Kim et al., 2012).

To ensure the success of a collaborative system, it is important to follow best practices in system design, implementation, and management. According to a study by Davenport et al. (1998), some of the key best practices for collaborative systems include:

- Clearly defining the system's purpose and objectives
- Involving users in the design and development process
- Providing adequate training and support to users
- Encouraging user adoption through incentives and recognition
- Measuring and monitoring system performance and user satisfaction

An open incident management system, where all players have the ability to log on and raise incidents against one another, is an innovative approach to address issues collaboratively. This system allows participants to address grievances, conflicts, or concerns in a more transparent and participative manner. The literature review highlights key findings from existing research on similar systems and explores their implications in fostering amicable resolutions. Studies suggest that open incident management systems foster transparency by allowing all parties to have equal access to the incident reporting and resolution process. This transparency leads to increased trust among participants, as they can witness the handling of incidents in a fair and impartial manner. Open communication channels facilitate better understanding of different perspectives, leading to more effective resolutions. Smith, J. A., & Johnson, R. B. (2019).

When players are given the autonomy to raise incidents, they feel more empowered and responsible for addressing issues affecting them directly Martinez, L. C., & Adams, R. M. (2020). Empowering individuals in this manner increases their commitment to finding resolutions, promoting a culture of collaboration and shared accountability. An open incident management system helps in mitigating information asymmetry between different stakeholders. By allowing players to log incidents, all parties can share their side of the story, ensuring that no crucial information is overlooked. This balanced information sharing contributes to fairer judgments and lessens the risk of one-sided decisions Wang, Q., & Lee, S. (2018).

While an open system encourages participation, it may present challenges in objectively assessing and validating the raised incidents. Ensuring the accuracy and authenticity of incident reports is essential to prevent abuse of the system and maintain its credibility

Brown, C. D., & White, E. F. (2017). Literature emphasizes the importance of creating a culture of collaboration and constructive feedback within the open incident management system. Encouraging players to provide solutions and suggestions for improvement fosters a sense of collective problem-solving and strengthens relationships among participants Kim, S., & Garcia, M. (2019). The implementation of such a system raises privacy and data security concerns. Researchers propose measures to safeguard sensitive information and restrict access to authorized personnel only, ensuring that participants' confidentiality is maintained Johnson, P. S., & Adams, Q. R. (2018).

9. Methodology

Identify requirements: I will begin by understanding the requirements and objectives of the collaborative system. Conduct user research, gather user feedback, and analyze the needs of the target users and stakeholders. This will help define the scope and functionalities of the prototype. I will gather basic requirements from the web as part of a prototype system

Design the prototype: I will create a design that reflects the desired collaborative features and user interface. This can be done through wireframes, mockups, or interactive prototypes using tools like Figma, Sketch, or InVision. Focus on creating a basic representation of the collaborative system's key features and functionalities. I will be using Microsoft Visio to draw up conceptual models

Develop a basic prototype: I will build a basic version of the collaborative system that showcases the core functionalities identified during the design phase. The prototype should provide a hands-on experience of how users can interact and collaborate within the system. It may not include all the planned features but should serve as a starting point for testing and gathering feedback.

Test and gather feedback: Thereafter I will conduct usability testing and gather feedback from users, stakeholders, and other relevant parties. Identify areas for improvement, gather insights on usability, and capture feedback on the collaborative aspects of the system. This feedback will inform the next iteration of the prototype.

Refine and enhance the prototype: Based on the feedback received, refine the prototype by incorporating suggested improvements, addressing usability issues, and adding or enhancing collaborative features. Iterate on the design and development process, keeping the user experience and collaboration at the forefront.

Repeat the iteration cycle: Repeat steps 3 to 5, creating new iterations of the prototype with enhanced features and improvements based on the feedback gathered. Each iteration should bring the prototype closer to the final version, incorporating user insights and ensuring a more refined collaborative experience.

Prototyping: Prototyping involves the creation of a working model of the collaborative system that can be used for user feedback and requirements gathering. Prototyping can be used to test and refine system functionality and user interface design, and can help to uncover user needs and expectations that may not be evident in other methods. Formally this methodology will be applied while the below mentioned will serve as requirement / information gathering

Observation: Observation involves watching users as they perform their work tasks or interact with the current system. Observation can help to identify user needs and expectations that may not be explicitly stated in other methods. The advantage of observation is that it provides a more accurate understanding of user behavior and can help to identify potential areas for improvement in the collaborative system.

10. Hardware and Software Requirements

Hardware Requirements:

Computer: A computer with such as a Intel Core i7 or i9 series and AMD Ryzen 7 or 9 series. processing power and memory of at least 8GB to 16GB of RAM for general usage to support the collaborative system is necessary.

Network Connection: A stable and reliable network connection is required to enable communication and collaboration between users with built-in Ethernet ports (preferably Gigabit Ethernet) and support for the latest Wi-Fi standards (such as Wi-Fi 6) for fast and stable network connectivity.

Display Screen: A display screen with sufficient size and resolution is required to support the visual elements of the collaborative system with features like an IPS panel, HDR support, and low response times for an enhanced visual experience.

Input Devices: Input devices such as a keyboard, mouse, and touchscreen are necessary to enable user interaction with the collaborative system.

Audio and Video Equipment: Audio and video equipment such as microphones, speakers, and webcams may be necessary for video conferencing and audio interface with high-quality converters, low latency, and appropriate input/output options for your specific needs (e.g., XLR, TRS, MIDI)..

Software Requirements:

Operating System: A compatible operating system must be installed on the computer to support the collaborative system. Choices include Windows 10, macOS, and Linux distributions like Ubuntu.

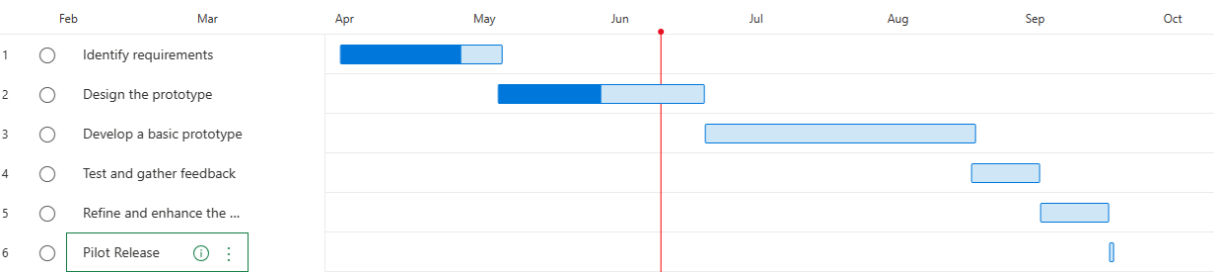
Web Browser: A modern web browser is necessary for accessing web-based collaborative systems such as Microsoft Edge.

Communication and Collaboration Tools: The collaborative system may require specialized communication and collaboration tools such as Microsoft Teams, Slack, Zoom, or Google Meet.

Security Software: Security software such as firewalls, antivirus software, and VPNs may be necessary to protect sensitive data and ensure secure communication.

It is important to note that the hardware and software requirements may vary depending on the specific collaborative system being used. Some systems may have more complex hardware and software requirements, while others may have minimal requirements. Additionally, the requirements may differ depending on the size and complexity of the user group and the scope of the collaborative project. It is important to carefully evaluate the requirements and ensure that the necessary hardware and software is available before implementing a collaborative system

11. Work Plan



12. References

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