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| Individual Research Proposal |
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Scenario One

Our objective in creating this system for Creative Instinct Building Supply is to meet the needs of customers by supplying them with an easy-to-use user interface, and supply and install their product in an efficient and reliable manner. Our goal is to ensure the new system meets project budgets and schedules and quality will be evaluated in terms of the system’s efficiency and effectiveness. This system will require the coordination of our stakeholders who will be organized into teams. Their primary objective will be to build a system that will meet our defined requirements.

We are a small, family-owned company that is new with only three years in the construction industry. We are a building supply company that caters to contractors and customers in the construction industry. We sell competitively priced, high-end products that consist of asphalt roofing shingles, siding, windows, doors, decking, costagra, and a plethora of other building materials. We need an application that will enable our outside sales team to easily view new vendor products at vendor events and order their products quickly and efficiently. We will need a system where contractors and customers can order, buy, schedule appointments, and receive quality prompt service to supply their needs.

We will utilize an agile project management methodology with an emphasis on the agile software development life cycle. The project manager will organize scrum teams with clearly defined roles, and they will work in short sprints. As deliverables and goals are met, we will roll out portions of the system to the end users for trial and feedback.

A mobile platform will be beneficial for the organization because it will allow customers to place orders on the move, and outside sales representatives will be able to order from vendor events and direct ship to our store. Let me highlight the responsive web design which will deliver web content correctly regardless of the device being used.

We will make use of prototyping for this project which will give users an opportunity to test out the system and give feedback. At which time we can make any necessary adjustments and debug the system. The user’s feedback will also be useful to validate user requirements and to aid in formulating the finished product. Agile development methods may be used as well, which will entail the developers building a series of prototypes and constantly making revisions according to user requirements and feedback received from users.

. “A report by RiskBased SECURITY revealed that a shocking 7.9 billion records have been exposed by data breaches in the first nine months of 2019 alone. This figure is more than double (112%) the number of records exposed in the same period in 2018. With the scale of the cyber threat set to continue to rise, the International Data Corporation predicts that worldwide spending on cyber-security solutions will reach a massive $133.7 billion by 2022,” (Kaspersky, 2022). “According to estimates from Statista’s Cybersecurity Outlook, the global cost of cybercrime is expected to surge in the next five years, rising from $8.44 trillion in 2022 to $23.84 trillion by 2027. Cybercrime is defined by Cyber Crime Magazine as the “damage and destruction of data, stolen money, lost productivity, theft of intellectual property, theft of personal and financial data, embezzlement, fraud, post-attack disruption to the normal course of business, forensic investigation, restoration and deletion of hacked data and systems, and reputational harm,” (Fleck, 2022). We achieve this objective by establishing strategies for managing security risks, IT policies, and internal processes.

. “As more and more people turn online, whether for work or their personal lives, there are more potential opportunities for cyber criminals to exploit. At the same time, attacker techniques are becoming more advanced, with more tools available to help scammers. The coronavirus pandemic saw a particular shift in cyber-attacks, as Statista’s Outlook analysts explain: “The COVID-19 crisis led to many organizations facing more cyberattacks due to the security vulnerability of remote work as well as the shift to virtualized IT environments, such as the infrastructure, data, and network of cloud computing,” (Fleck, 2022).

Security controls for laptops are different from those of other devices so the policy must entail what is secure, compliant, and allowed. I think we need to invest in streamlining and automating processes by leveraging a workplace management solution to eliminate bottlenecks, and time-consuming processes. A batch processing system will be implemented to handle the extensive amounts of data that will be processed routinely with half of the training, hardware, and programming resources.

We will use AWS, a cloud-based ERP web-based solution (SaaS) to improve business performance and efficiency. “ERP purports to support all business functions of an enterprise, especially procurement, material management, production, logistics, maintenance, sales, distribution, financial accounting, asset management, cash management, controlling, strategic planning, and quality management. Collaborative efforts between vendors and customers can lead to the mutually beneficial result of rapidly added systems functionality,” (Kluwer, 2000).

Scenario Two

The goal of this system design for Mahogany Foxx Clothing is to meet the needs of customers and to be maintainable, efficient, and reliable. In addition, our system shall be produced in a way that meets project budgets and schedules and will be done in an economical fashion. Here at Mahogany Foxx, we currently have 16 branches in six states on the east coast. We are a fashion company that caters to stores and customers in the fashion industry. We will need a system where our outside sales reps can order, buy, and receive new products from vendors at fashion shows and vendor events straight from their mobile device or tablet and work remotely.

Our business requirements consist of:

* The need to identify slow- or fast-moving clothing items so our inventory department can manage our clothing inventory more efficiently.
* We need accurate recordkeeping and timely order processing so management can better equip staff so they can provide up-to-date inventory.
* We need prompt notification of any security issues so IT can mitigate any security threats that may arise in a timely, cost-effective manner.
* We need a simple yet adequate interface for the cashier system for ease-of-use for our cashiers.
* Our owners need concise strategic objectives in place to make the new system run smoothly.
* I think a star topology is best because we can manage every node from one central switch and our central hub will be a server which will manage data transmissions across the entire network. The setup is simple, and we can add new computers without taking the network offline.

Since our outside sales reps will work remotely, we will implement a remote access policy.

Remote access control is the ability to control and oversee access to networks or computers. Employees can work remotely away from the office or organization while retaining access to business networks or computers. “Deploying remote access control provides a secure connection. It minimizes the risk of data theft or loss and malicious activities since you are controlling the connection, therefore not allowing unknown entities to access private or corporate data” (Yfantis, 2018). People are finding increased productivity with the flexibility of “telecommuting.” It is imperative that our organization implements an information security policy to not only ensure employees and others follow security protocol, but to ensure the safety of our company’s data from new threats and security breaches. Our ISP or information security policy will be a guide that IT users in our organization will use to guide our company’s assets. Our information security policy will contain a broad overview of our organization’s network architecture. Our ISP outlines how our organization should react when encountering unauthorized use and includes instructions on acceptable and unacceptable use. The purpose of the information security policy is to ensure that employees and other affiliated users follow security protocol and procedures properly. Keeping an updated security policy ensures that only authorized users can access sensitive information. Creating, updating, and ensuring compliance of our security policy is a vital step in securing the prevention and mitigation of security breaches. Continuous updates to company changes means more effectiveness when new threats arise, and what better way to improve upon a security policy than to draw from previous breaches. To better understand how to increase productivity while maintaining organizational security with an effective remote access policy, we must understand its role in an organization. According to Gallup’s State of the American Workplace report currently, at least 43% of workers in the U.S. work remotely at least part of the time (Hickman Ph.D., 2019). It has been reported that remote workers have higher job satisfaction and flexibility, have higher production rates, and experience less interruptions and distractions. In turn, organizations are experiencing less absenteeism, far greater employee retention, as well as less stress on office accommodations. Organizations are finding that remote workers are logging more hours away from the office and saving money on commuting expenses. Companies are saving on office space expenses also. The increase in usability and availability of remote accessibility services via mobile devices or personal computers allows access outside of firewall and physical wall protections of organizations draws a plethora of confidentiality, connectivity, and information security issues. These challenges jeopardize sensitive information by way of inappropriate or unauthorized use and may lead to compliance issues from statutes issued from Payment Card Industry Data Security Standards (PCIDSS) or Health Insurance Portability and Accountability Act (HIPAA). Our remote access policies should include guidelines for access that may include the following:

* Password protocols
* Guidelines for connectivity
* Access privileges, hierarchy, and authentication
* Virtual and physical device security
* Encryption policies
* Confidentiality, information security, and email policies
* Software and hardware configuration standards for remote access
* Equipment ownership and access requirements
* Policy compliance, enforcement, and governance
* Third-party standards and protections

Controls are set in place and policy compliance is used to validate the controls that are set.

Related standards are standards that directly correlate to the remote access policy or information security policy. Some of which include:

* Personal and mobile devices
* Privacy regulations
* Data security policy
* Acceptable use policy
* IAM regulations
* SaaS and cloud policy
* Security incident response plan
* IT administration and operations

A worldview is your philosophy of life or the lens through which you view the world. Our worldview shapes the way we think about life, death, our values, principles, and so much more. Therefore, it is critical how we think because our thoughts and actions shape the world. You never know how you may impact someone else. Man originated from the dust when God breathed air into his nostrils Genesis 1:7 (KJV). Therefore, it is critical to have a Biblical worldview. The Bible is the blueprint to right living, and just as a gardener waters his plants and weeds his garden, we need to edify and weed our minds.

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