



Knight Foundation School of Computing and information Sciences

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Cybersecurity Essentials Training Platform

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PROBLEM

Low cybersecurity literacy poses a significant risk to organizations and individuals because it can lead to data breaches, cyberattacks, and financial losses. Many employees lack the knowledge needed to recognize and migrate cyber threats such as phishing emails, malicious links, or fake websites. Without understanding data protection protocols, employees may mishandle sensitive information like storing personal data or using unsecure networks. In an increasingly digital world, the importance of cybersecurity knowledge extends beyond the workplace; it is essential for everyone to safeguard their personal information and devices. As cyber threats grow rapidly the risks are no longer confined to only organizations but now targeting individuals and small businesses. Studies show that organizations investing in cybersecurity training courses to their employees can help reduce the likelihood of breaches and create a understanding of cybersecurity awareness. Equipping people with essential cybersecurity knowledge is not just a corporate necessity but a social imperative to combat digital threats.

SYSTEM DESIGN

This Cybersecurity Essentials Training Web App is an interactive and use—friendly platform designed to help users gain a better comprehensive on cybersecurity literacy. This web app features modules on areas like phishing and social engineering, Secure Browsing, and Password Management, the app also provides hands on learning and tools such as a password strength checker and quizzes to test your knowledge. The web design ensures users can easily navigate the content and track their progress as easily and simple as they can. By breaking down complex cybersecurity concepts into easy to learn lessons, this platform empowers users to safeguard their personal information, migrate risks, and know the best practices to stop threats. Designed to educate users on the fundamental principles of cybersecurity in a engaging and fun manner, the app ensures that even those with no prior technology experience can confidently apply cybersecurity practices. This accessible approach makes it a good resource for applying a culture of cybersecurity awareness in both personal and professional contexts.

IMPLEMENTATION

This Cybersecurity Training Platform is a React based web application designed to provide users with interactive training modules on important cybersecurity concepts. The web app uses modern React features like useState and useEffect hooks for state management, allowing dynamic components like the Landing Page, Modules, and Certificate. Users progress through the modules completing them and it is all tracked via the completedModules state, and once finished a certificate is ID is generated using the uuid library and stored in localStorage to keep persistence across the sessions. Tailwind CSS is used for responsive, visually appealing layouts so our users have a easy time navigating though the modules and quizzes. Overall, the platform combines modern web technologies, intuitive navigation, and robust state management to effectively educate users with little to no cybersecurity knowledge, building critical knowledge in a engaging way.

SUMMARY

This web application is designed to address the critical need for improving cybersecurity awareness and literacy to individuals with little to no knowledge. Using react, the platform provides a seamless and interactive learning experience through learning modules, test, and certifications. Users progress through comprehensive training modules on topics like Phishing, HTTPS, and secure Browsing, with their progress tracked through reacts stage-management feature. The app utilizes Tailwind CSS for responsive, user-friendly layouts and ensures user data persistence through uuid library local storage, enabling the generation and retrieval of unique certifications upon course completion.

The web app is designed with scalability and accessibility, allowing new modules or features to be added effortlessly while maintaining a consistent user experience. By breaking down complex cybersecurity concepts into easy to learn lessons and incorporate practical tools like quizzes and a password strength checker, the app allows users to get the essential security practices they need. It's goal is to be able to give people the cybersecurity knowledge and skills to protect themselves and their organization in a increasing digital threat prone world. This cybersecurity training platform provides an engaging, scalable, and impactful solution for fostering a cultures of security awareness.

VERIFICATION

As you learn and complete the modules you will receive a certification of achievement for completing

