Development
Winter Assignment

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Information Management Group

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Software Fillers

Overview

Here are a few basic ideas to get you started. Feel free to build upon these as you see fit. To submit your work, simply fill out the submission form provided on our website. You may choose any number of tasks from the list, but keep in mind that both the quality and quantity of your work will be taken into consideration for a chance to directly appear for our recruitment interviews.

Project Ideas

RetroFlix Ticket Odyssey

Being an enthusiastic follower of Madhuri Dixit in the thriving 90s, I vividly remember the hassle of enduring never-ending queues outside movie theaters, always uncertain about snagging a ticket for my beloved Bollywood movies. Fast forward three decades, with the advent of cutting-edge web development and futuristic technologies, we now have the chance to disrupt this outdated experience. Let's leverage tech prowess to bid adieu to the era of uncertainty and lengthy queues, crafting a seamless, tech-infused solution for hassle-free ticketing.

Create a comprehensive real time web application that caters to the unique needs of a retro Bollywood cinema, offering an immersive experience for moviegoers while efficiently managing ticket sales and seating management. The goal is to blend modern web development practices with the timeless charm of classic Bollywood cinema.

Hint: Picture this: two users, same seats, simultaneous booking. Solution? WebSockets + Yjs. Real-time updates. Conflict-free experience. Easy booking, always.

CineConnect Harmony

Back in the 90s, the dream of watching movies with your long-distance girlfriend/boyfriend seemed like an unattainable fantasy. Fast forward 30 years to today's era of advanced web development solutions, and we have the power to create a tailored solution for this once-impossible scenario. Let's leverage modern technology to bridge the gap, enabling you to enjoy movie dates seamlessly, no matter the distance.

Create a user-centric virtual movie-watching platform, to share the movie watching experience with friends and family. The objective is to offer a seamless, synchronous, and immersive shared cinematic experience, addressing the challenges faced by individuals separated by geographical distances.

Hint: One device will stream the movie and others will join in . Read about video streaming over [WebRTC](#).

StreamGuard Sentinel

As a seasoned movie producer haunted by the ghosts of piracy in the pre-.com era, the quest for a piracy-proof haven continued through the ages. Now, in the age of online streaming, witness the birth of StreamGuard Sentinel – not just a streaming platform, but a fortress that stands resilient against the tides of piracy, ensuring the protection and prosperity of Bollywood's timeless creations.

Create an impervious streaming service that incorporates encryption-decryption processes, guaranteeing exclusive access to subscribed users who possess decryption keys. Additionally, implement screen recording resistance measures and enforce stringent web integration policies to fortify content protection, preventing unauthorized access and preserving the integrity of the subscription-based streaming experience.

Hint: Look into web integrity api and follow this article thread. This idea can be a bit complex so make sure to think about your own creative ideas to implement it on a shorter scale

WhispersVanish

Step into a realm where conversations transcend the confines of permanence. WhispersVanish is not just a chatroom service; it's a fleeting sanctuary for the unsaid,

a space where words dance in the ephemeral glow of the present, lingering only in memories. In a world saturated with perpetual digital footprints, WhispersVanish embraces the magic of transience, allowing users to savor the beauty of conversations that disappear like whispers in the wind.

Create a unique chatroom service, WhispersVanish, that operates on a session-based model, allowing users to join, chat, and leave, with all data disappearing permanently once the session concludes. The goal is to provide users with a fleeting and private space for conversations that embrace transience.

Blockchain Development (dApp)

The advent of UPI has revolutionized digital financial transactions in India, yet the existing system encounters certain challenges that could be addressed through the integration of blockchain technology. The current UPI framework, while effective, faces concerns related to security, transparency, and operational efficiency. There is a need to explore the potential of blockchain implementation to mitigate these challenges and elevate the UPI ecosystem to new heights.

Develop a solution that leverages Solidity smart contracts for UPI transactions, integrates a Push Protocol for real-time notifications, and utilizes The Graph Protocol for decentralized indexing. The challenge is to seamlessly combine these technologies, ensuring secure, transparent, and efficient enhancements to the UPI system, while addressing scalability and user experience considerations.

Hint: Contract with solidity. For brownie points notifications with "push protocol" and indexing with "the graph". Come with your own creative solutions and associated tech stack.

Found Some Extra Fillers?

These tasks are just indicative and you are in no way restricted to work only on these. Feel free to work on anything of your choice and send in your best submissions when the deadline approaches.

Frequently Asked Questions

1. **Is this an individual or group project?**
   This is an individual project, and submission is limited to one per person :)
2. **Is hosting necessary?**
   Brownie points for hosting, but be sure to include your app setup instructions in the README file of your GitHub repository!
3. **What tech stack can I use?**
   You are free to use anything and everything to build your software application
4. **Can I follow online tutorials?**
   Yes, of course! However, we do not encourage direct copies. We expect you to understand and take inspiration from tutorials, but the core effort should be your own.

Still, have a Question? Ask Us!

We at IMG are here to help throughout your development from a learner to a web developer. Just ping us at any point if you are stuck; we surely like to stick to the motto, "Help will always be provided to those who ask for it."

Remark: Please post your queries on the [discord server.](#) We would be delighted to see your progress. Even if you don't reach the end, what's most important is that you learned something new. That's all that matters to us. We're always looking for talented developers and designers who have a constant desire to learn and grow.

So, please submit your code to us via a GitHub link for a public repository. If your hard work is reflected in your code, you may even get a chance to directly appear for recruitment interviews.

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All the best!

Stay tuned, as we will soon release the submission form on our recruitment site and social media pages. Keep following us for updates.