Constraint Essay – SupaWorkers Project

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Our project, SupaWorkers, is a secure online marketplace that connects temporary workers with employers. Several major constraints influence our design and implementation. Economically, our team operates on a zero-cost budget, relying on open-source tools like MongoDB, Node.js, and React, while hosting through university resources. This limits our ability to use premium APIs or paid deployment services, constraining scalability options. Ethically, we must ensure fairness and inclusivity in how jobs are listed and matched, avoiding bias or exploitation of workers. We also take care to protect user data and ensure transparency in our system's algorithms. Security is a major constraint, as the platform handles sensitive user information such as login credentials and job details. We must enforce best practices like input validation, encryption, and rate limiting to prevent attacks such as SQL injection or session hijacking. Socially, our solution aims to promote equitable employment access for local and international users, but we must design it to remain user-friendly for those with limited digital literacy. These combined constraints guide our technical and ethical decision-making, ensuring SupaWorkers remains safe, accessible, and responsible.