CRISP.NZ

for

Cloud Computing (INFS 803)

by

GROUP 8

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# Introduction

CRISP offers a comprehensive solution designed to empower both job seekers and recruiters. For job seekers, CRISP provides an intuitive platform to craft personalised profiles, complemented by the ability to upload introductory videos and traditional CVs. This multimedia approach surpasses the confines of conventional resumes, compelling candidates to showcase their skills, experiences, and personality.

On the recruiter's front, CRISP equips hiring professionals with tools to effortlessly post job listings, rate, and engage with candidates. Furthermore, CRISP facilitates seamless communication channels, fostering meaningful interactions between recruiters and candidates throughout the recruitment journey.

# Proposed Methodology

The study explores integrating cloud technologies within the Amazon Web Services (AWS) platform to implement the conventional three-tier architecture prevalent in software development. By utilising these services, the objective is to enhance the efficiency of software delivery and cost management without compromising scalability, flexibility, or efficiency. AWS Cognito is employed for user authentication and authorisation. At the same time, AWS S3 provides scalable object storage, AWS Route 53 offers a scalable domain name system (DNS), AWS Lambda enables serverless computing, AWS DynamoDB delivers managed relational databases, AWS API Gateway manages RESTful endpoint deployments, and AWS Amplify streamlines the development and deployment of cloud-based applications. Through thoroughly examining how these AWS services can be seamlessly integrated into each architectural tier, the research aims to propose innovative strategies for application deployment, scaling, and maintenance.

TypeScript and React are chosen for dynamic user interfaces for front-end development, with Vite utilised for efficient builds. Tailwind the CSS style of the application to ensure a rapid, responsive design. Automated pipelines are implemented to compile and deploy the front end following successful pull requests (PR) to the main branch, ensuring consistent updates. Testing frameworks such as Vitest for unit testing and Playwright for end-to-end testing are employed to uphold code quality.

GitHub is the source control platform for managing versioning and collaboration among team members.

In the database layer, AWS DynamoDB is a fully managed NoSQL database handling hardware provisioning, setup and configuration, replication, software patching, and cluster scaling. Additionally, DynamoDB incorporates data encryption features to safeguard sensitive information.

# Project Management

Using Scrum as the project delivery mechanism, CRISP provides a structured and iterative approach to software development, aligning seamlessly with the dynamic nature of cloud technologies and the evolving needs of stakeholders. By adopting agility, the project team can break down the development process into smaller, manageable tasks or user stories, which are then organised into sprints, typically lasting one week.

Expected Outcomes  
The anticipated outcome is a highly scalable, resilient, cost-effective, serverless web-based recruitment platform. By integrating specified cloud services, this platform will establish a robust infrastructure capable of seamlessly handling varying workloads.