CRISP.NZ

for

Cloud Computing (INFS 803)

by

GROUP 8

Juan Herbst (13840146)

Mike Chene (19070279)

Tommaso Cammelli (23215488)

Auckland University of Technology, Auckland, New Zealand

# 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 transcends 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 project delves into integrating cloud technologies, including *Amazon Web Services* (AWS) offerings such as *AWS Cognito*, *S3*, *Route 53*, *Lambda*, *DynamoDB,* and *Amplify*, within the traditional three-tier architecture model in software development. By leveraging these *AWS services*, we aim to optimise the cost, scalability, flexibility, and efficiency of software deployment and management. *AWS Cognito* is used for user authentication and authorisation, *S3* provides scalable object storage, *Route 53* offers scalable domain name system (DNS) web service, *Lambda* enables serverless computing, *DynamoDB* delivers managed relational databases, and *Amplify* streamlines the development and deployment of cloud-based applications. Through a comprehensive examination of how these *AWS services* can be integrated into each architecture tier, our research seeks to propose innovative approaches for deploying, scaling, and maintaining applications.

In the frontend, we'll use *TypeScript* along with *React* for a dynamic UI and Vite for efficient builds. Tailwind CSS will style our app for rapid, responsive design. Automated pipelines will compile and deploy the frontend upon successful PRs to the main branch, ensuring consistent updates. To ensure code quality we’ll use testing frameworks like *Vitest* for unit testing and *Playwright* for E2E testing.

As for the database layer, DynamoDB is a fully managed NoSQL database that manages hardware provisioning, setup and configuration, replication, software patching, and cluster scaling. Moreover, DynamoDB offers data encryption features to protect sensitive data.

# 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 Agile Scrum, 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 web-based recruitment platform. By integrating specified cloud services, this platform will establish a robust infrastructure capable of seamlessly handling varying workloads.