NANYANG TECHNOLOGICAL UNIVERSITY
SINGAPORE

School of Computer Science and Engineering
College of Engineering

Infrastructure as Code

Deploying Speech Recognition System using Kubernetes Cluster with Terraform and Terragrunt

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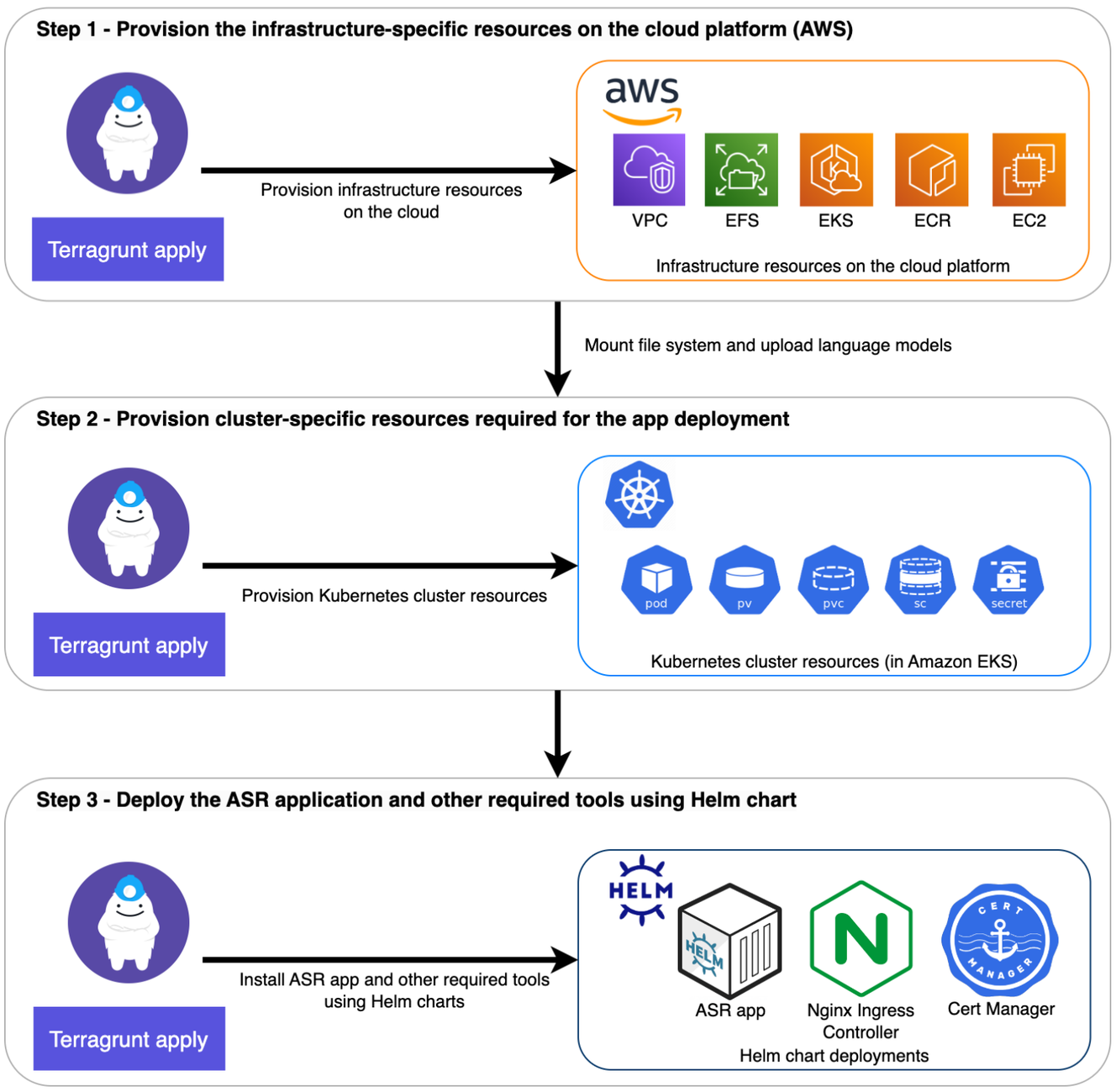
Project Objectives:

The goal of this project is to design and implement a solution that can improve the configuration and deployment process of the automatic speech recognition (ASR) software on various cloud platforms, such as Amazon Web Services (AWS), to simplify the replication and creation of multiple environments for the service by making use of Infrastructure as Code (IaC) tools. The proposed solution minimizes manual and repetitive works required for the deployment of the ASR software on cloud platforms and future maintenance, enhancing developers' experience.



Benefits of the proposed solution

By leveraging the power of IaC tools, we can simplify and accelerate the infrastructure provisioning process, avoid hidden mistakes, and keep the deployment consistent. Moreover, these tools offers the following benefits for our app deployment on cloud:

- Consistent and traceable states of resource provisioning
- High reusability and scalability
- Easy deployment for multiple environments
- Easy clean-up