Laboratory Report

Version control and continuous deployment

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Engineering in Information Securtity and Networking

Cloud architecture

Prof. Mtro. Rodolfo Luthe Ríos

Edgar Guzman Claustro

Si727576@iteso.mx

ITESO

Universidad Jesuita
de Guadalajara

Abstract

During the development of this laboratory practice, four functionalities of the Rekognition API will be demonstrated. Starting with the face comparison, where the API is going to detect similarity between to faces images. The second functionality is the celebrity recognition, the API's answer is the name and the similarity percentage of similarity with the famous person in the photo. The third functionality is the text detection inside the image, where the API is returning the text. Finally, the face detection, where the API is capable to detect faces and return their emotions and more characteristics.

The recognition API works with AI and the simple part of all is that the user does not need to be a programmer or an IA data engineer. Just to make the simple call of the API with the correct parameters.

Conceptual framework

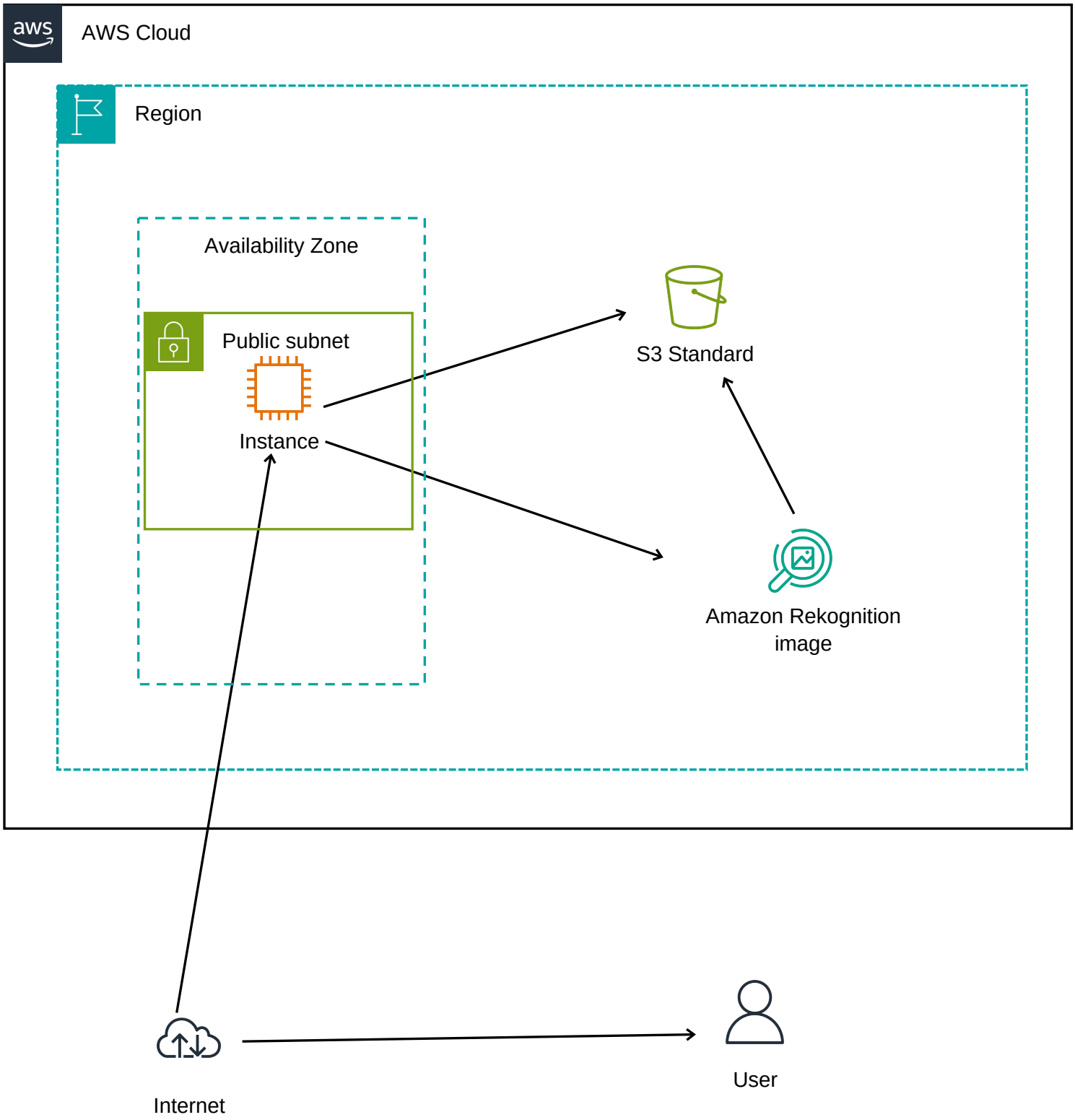
Cloud infraestructure: Cloud Infrastructure is the collection of hardware and software elements such as computing power, networking, storage, and virtualization resources needed to enable cloud computing. Cloud infrastructure types usually also include a user interface (UI) for managing these virtual resources. [1]

API: APIs are mechanisms that allow two software components to communicate with each other using a set of definitions and protocols. For example, the meteorology institute's software system contains daily weather data. The weather app on your phone “talks” to this system through APIs and shows you daily weather updates on your phone.[2]

Rekognition: Amazon Rekognition offers pre-trained and customizable computer vision (CV) capabilities to extract information from images and videos.[3]

S3: Amazon Simple Storage Service (Amazon S3) is an object storage service that offers industry-leading scalability, data availability, security, and performance. Customers of all sizes and industries can use Amazon S3 to store and protect any amount of data for a range of use cases, such as data lakes, websites, mobile applications, backup and restore, archive, enterprise applications, IoT devices, and big data analytics. [4]

Diagram


AWS Cloud
Region
Availability Zone
Public subnet
Instance
S3 Standard
Amazon Rekognition image
Internet
User