ImaProject Design Phase-I
Solution Architecture

Date	19 September 2022
Team ID	PNT2022TMID47894
Project Name	Emerging method for Early Detection of Forest Fires
Maximum Marks	4 Marks

Solution Architecture:

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:
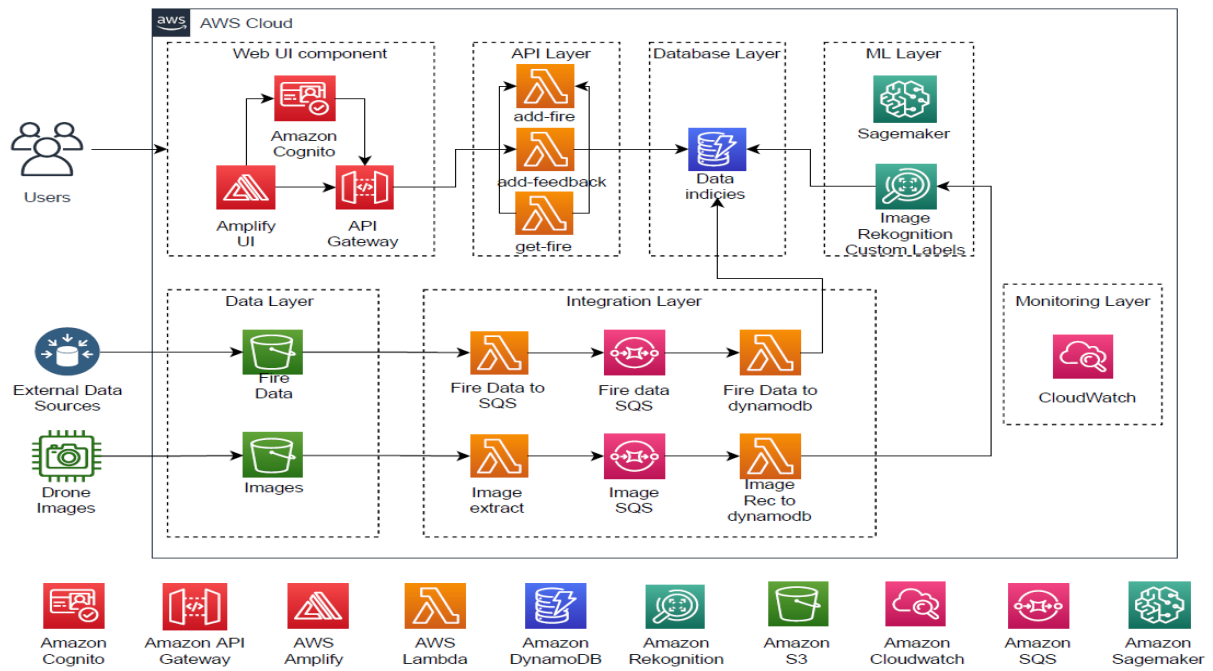
> The drone images, external data feeds from AWS Open Data Registry, and the datasets from The Weather Company are stored in Amazon S3 for processing.

> AWS Lambda processes the images and resizes the data, and the outputs are stored in DynamoDB.

> Rekognition labels the drone images that identify geographical risks and fire hazards. This allows emergency services to identify potential risks, and they can further model the potential spread of the wildfire and identify options to suppress it.

> Lambda integrates the API layer between the web user interface and DynamoDB so users can access the application from a web browser/mobile device (mobile application developed using AWS Amplify). Amazon Cognito authenticates users and controls user access.

Solution Architecture Diagram:

Image Processing Architecture