

AI in ICAI

EoI No.: ICAI/EOI/AIinICAI

Technical Solutions Proposal

20/06/2024

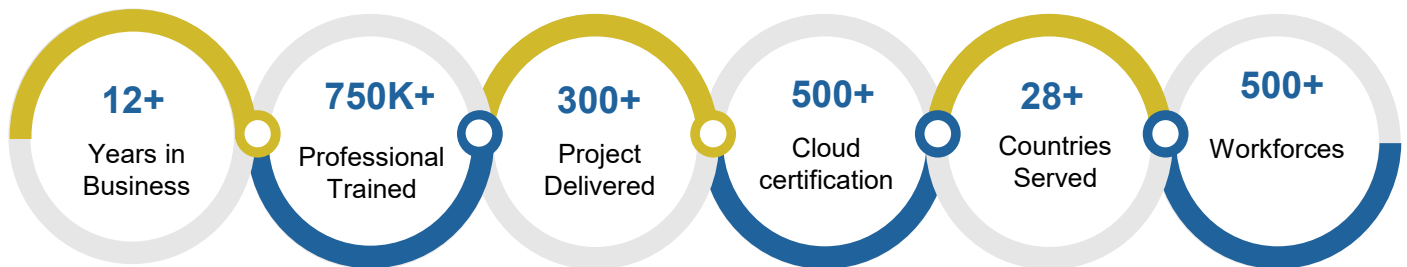




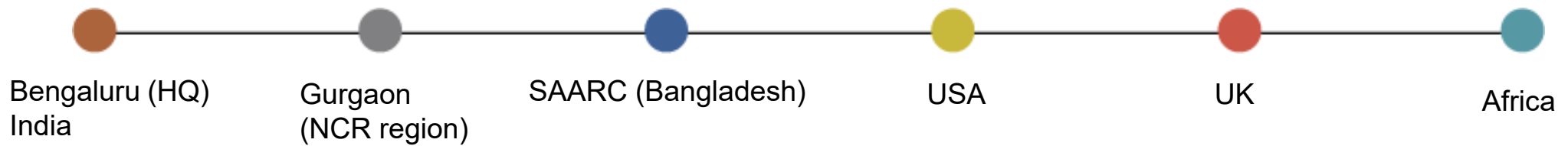
CloudThat incepted in 2012, is the first Indian organization to offer cloud training and cloud consultancy services for mid-market and enterprise clients globally

An Encyclopedic Learning & Consultancy Organization for Top-Notch Industry Certifications & Services

Partnered with Microsoft, Amazon, Google Cloud & VMware to offer best-in class training and Consultancy Services to Customers

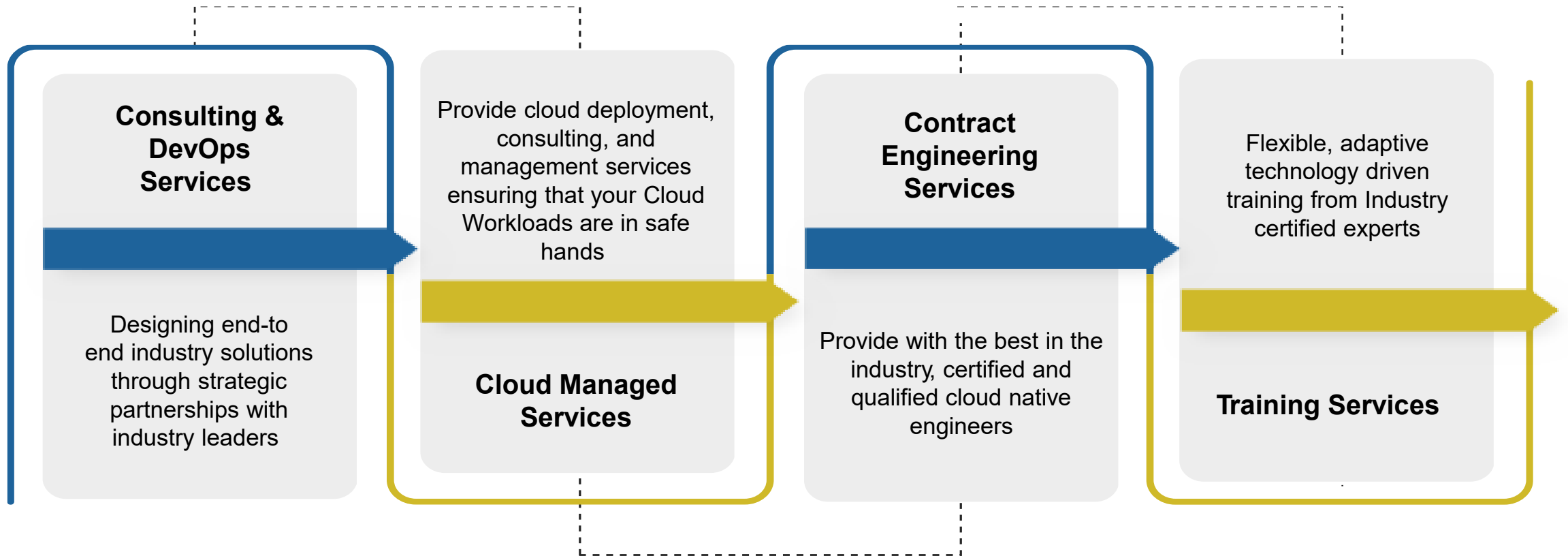


Our Global Presence



CloudThat's Competency on Proposed Cloud (AWS)





Our Exclusive Cloud Consulting Offerings

Services

- Readiness Assessment
- Cloud Migration & Modernization
- Data Modernization
- Cost Optimization
- Managed Services
- Cloud Security
- Contract Staffing

Solutions

- CEO Dashboard
- SMART Document Processing
- Media Services
- Know Your Architecture
- AWS ELK

Expertise

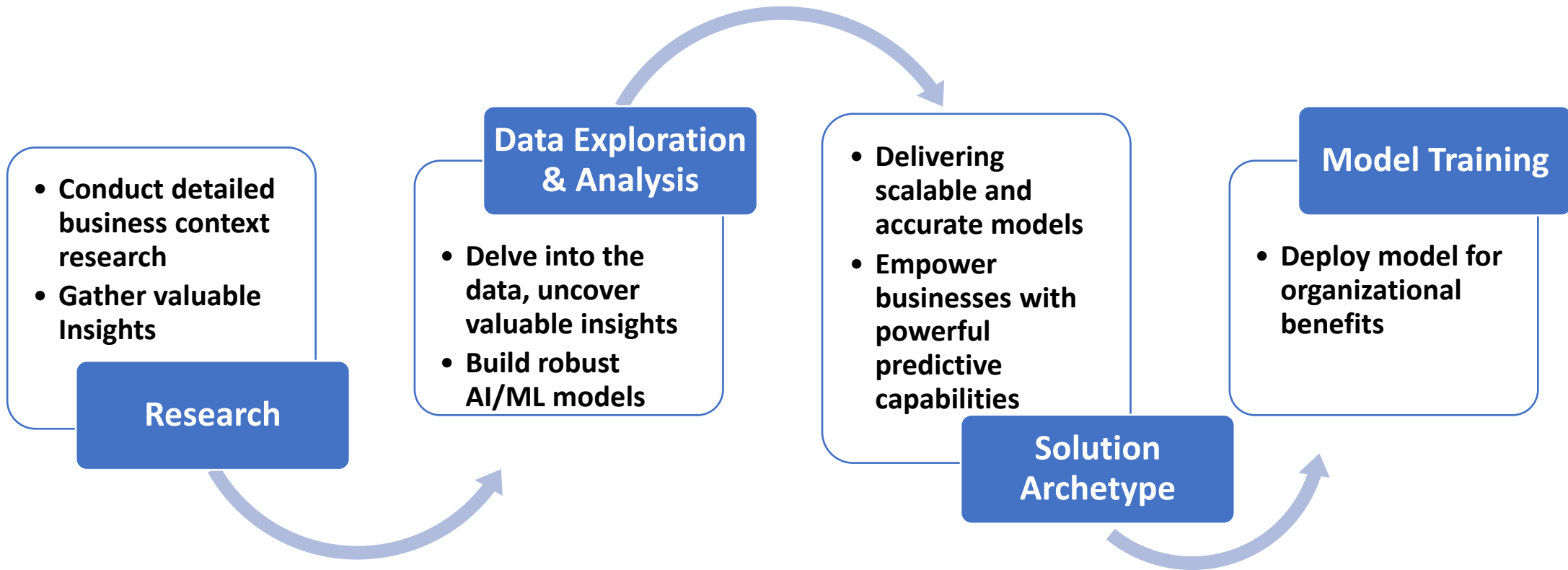
- DevOps
- Data Analytics
- Migration
- Cloud Operations
- Amazon QuickSight
- AWS EKS
- AWS Lambda
- API Gateway

Industries we serve

- Manufacturing
- IT/ITeS
- Retail & E-Commerce & FMCG
- BFSI & Fintech
- Logistics
- Healthcare & HealthTech
- Media & Entertainment
- Real Estate
- EdTech

Our Clientele





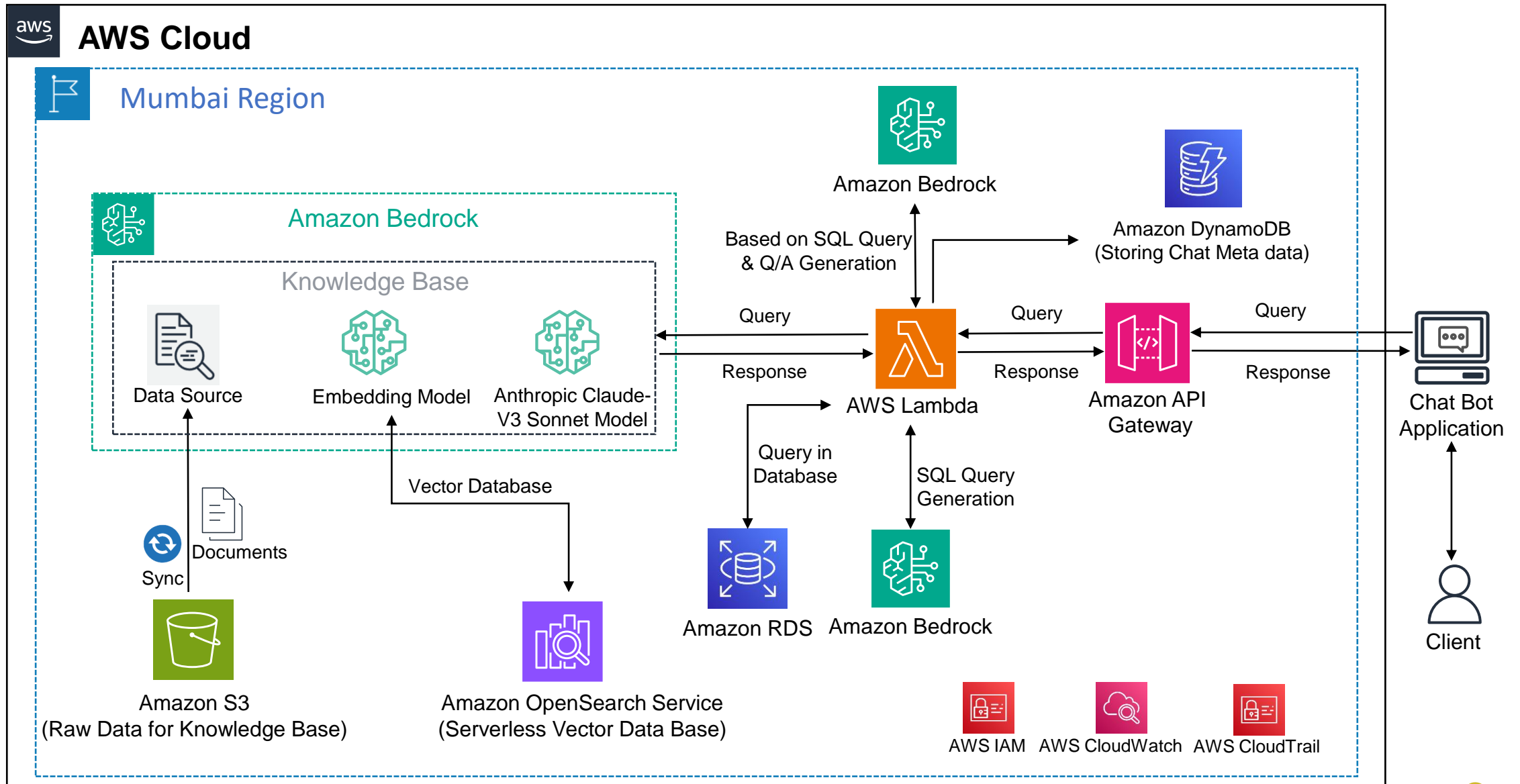
Solution 1

AWS GenAI Chatbot Solution

- This solution improves keyword searches in documents by using natural language user queries. It also allows users to search for information in a MySQL database with natural language queries, providing summarized answers.
- Users can ask questions related to the content available in documents and Databases without needing SQL expertise.
- Additionally, users can ask queries in multiple languages, including Hindi, English, Spanish, Bengali, and more.
- We can seamlessly integrate it into our existing solution using a REST API.

- **Enhanced Search Accuracy:** Utilizes NLP to interpret natural language queries, providing more precise and relevant search results compared to traditional keyword searches.
- **Improved User Experience:** Offers summarized answers and supports multiple languages, including Hindi, English, Spanish, and Bengali, making the solution more accessible and user-friendly.
- **Comprehensive Integration:** Allows seamless searching of information across documents and MySQL databases using the same natural language interface.
- **Easy Integration and Scalability:** The REST API facilitates quick and simple integration into existing systems and ensures the solution can scale with increasing data and user queries.
- **Cost and Time Efficiency:** Reduces the need for extensive user training and accelerates decision-making by providing concise and relevant answers quickly.

Estimated Architecture - ChatBot



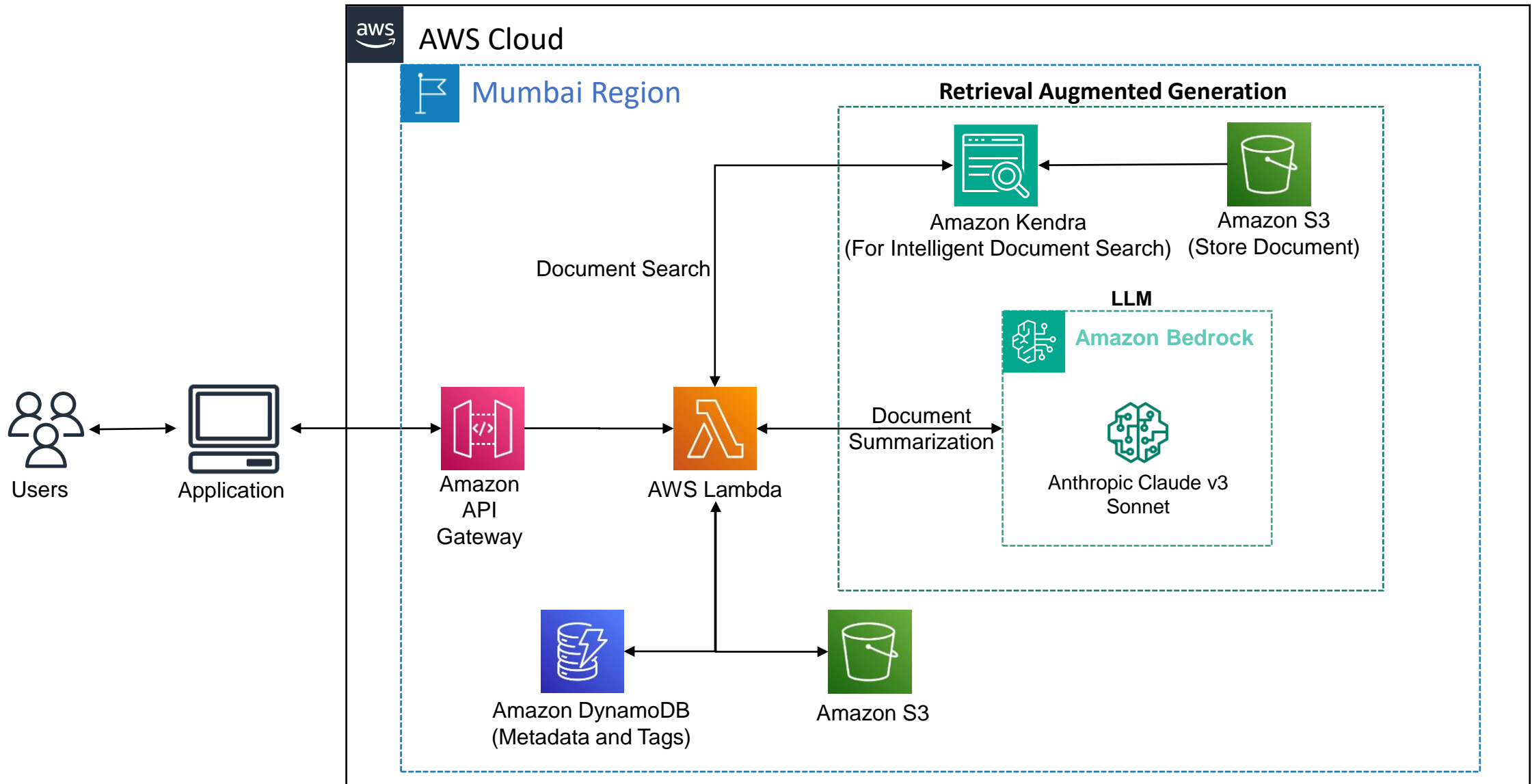
Solution 2

GenAI Based Smart Document Search and Document Summarization Solution

- Smart Document Search: An Advanced search combined with intelligent GenAI system capabilities. This innovative solution enhances document search from PDF, Text, Word etc by efficiently retrieving relevant information based on user Natural queries and providing insightful relevant responses.
- Document Summarization: Provides comprehensive summaries of extracted documents, offering:
 - Main Summary: An overall summary of the document, highlighting the key points.
 - Subtopics and Their Summaries: Breaks down the document into various subtopics, each with its own concise summary. This helps users quickly grasp the main ideas and details of specific sections without reading the entire document.
- We can seamlessly integrate it into our existing solution using a REST API.

- **Enhanced Efficiency:** Quick, relevant information retrieval from PDFs, Text, Word documents, saving time.
- **Improved User Experience:** Clear, concise responses and summaries for easy understanding.
- **Increased Productivity:** Automates search and summarization, allowing users to focus on essential tasks.
- **Versatility and Integration:** Easy REST API integration with existing solutions, supporting multiple document formats.
- **Insightful Analysis:** Breaks down complex documents for better comprehension and informed decision-making.

Estimated Architecture - Document Summarization and Smart Document Search



Solution 3

GenAI Based Intelligent Document Processing Solution

- Intelligent Document Processing which is an OCR (Optical Character Recognition) solution, a powerful business tool designed leveraging Machine Learning and Artificial Intelligence that could effortlessly analysis, extract from multiple documents like contracts, forms, Invoices, Bills and emails etc., passed as an image(.png,.jpg,.jpeg).
- The solution includes sophisticated functionalities like intelligent page alignment recognition and text extraction from images.
- Solution Support wide range of Indian languages, encompassing, English, Tamil, Kannada, Telugu, Hindi, and Gujarati.
- We can seamlessly integrate it into our existing solution using a REST API.

- **Efficiency:** Automates the extraction of data from various document types like contracts, invoices, and emails, reducing manual effort and improving processing speed.
- **Accuracy:** Leveraging OCR, Machine Learning, and AI, it ensures high accuracy in text extraction and data interpretation, minimizing errors compared to manual methods.
- **Multilingual Support:** Capable of processing documents in multiple Indian languages (English, Tamil, Kannada, Telugu, Hindi, Gujarati), enhancing accessibility and usability across diverse linguistic contexts.
- **Integration:** Seamlessly integrates into existing systems via a REST API, facilitating quick deployment and integration with other business applications.
- **Advanced Features:** Includes intelligent page alignment recognition and text extraction from images, providing sophisticated functionalities that improve document handling efficiency and usability.

Solution 4

GenAI Based Smart Email Assistance Solution

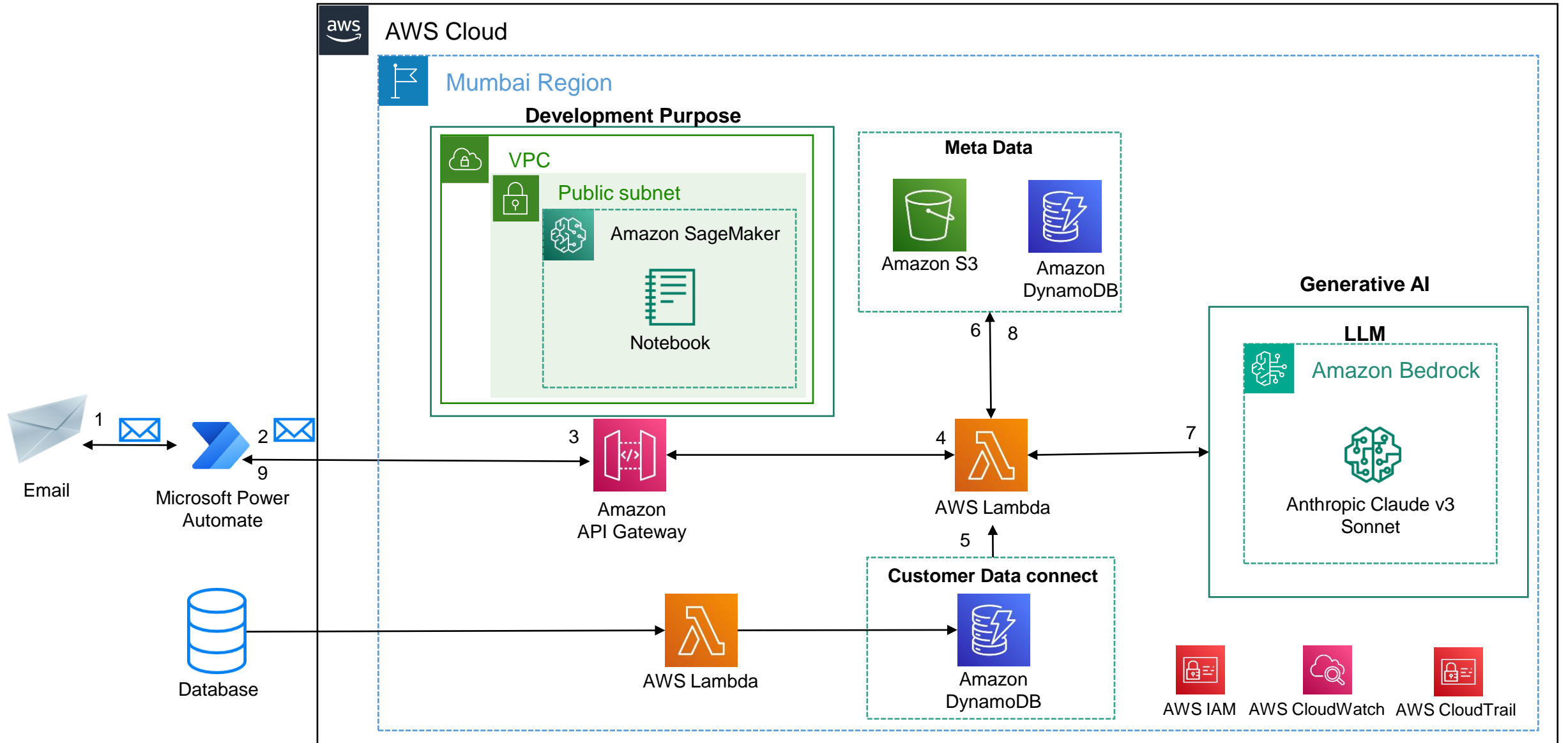
Solution Description



- The solution handles customer queries through e-mail. The goal is to automate routine queries and provide personalized responses based on customer data, seamlessly integrating with external data base like CRM Database, etc.
- This streamlined approach aims to elevate automatically respond to a customer queries via email and leverage Amazon Bedrock which is a GenAI service of AWS to understand, analyze and respond back to the customer email chain without human intervention.
- We can seamlessly integrate it into our existing solution using a REST API.

- **Automation Efficiency:** Automating routine queries reduces response time significantly, enhancing overall efficiency and customer satisfaction.
- **Personalized Customer Experience:** By integrating with CRM databases, responses can be tailored based on individual customer data, fostering a more personalized interaction.
- **Seamless Integration:** Utilizing Amazon Bedrock via REST API allows for smooth integration into existing systems, minimizing implementation complexities.
- **Scalability and Reliability:** Leveraging AWS services ensures scalability to handle increasing query volumes while maintaining high reliability.
- **Cost-effectiveness:** Automating responses lowers operational costs associated with customer support, optimizing resource allocation.

Estimated Architecture - Smart Email Assistance



Solution 5

AWS GenAI Amazon QuickSight with Q

- **Data Source Integration:** Amazon QuickSight Q connects to various sources, including Amazon S3 where your data files reside. It ingests the raw data and prepares it for analysis.
- **Natural Language Support:** Users can create topics in Q, defining how they can ask questions about the data. This includes specifying synonyms for data fields, allowing users to ask questions using different terms for the same information.
- **Intuitive User Interaction:** Users interact with Q using a search bar and ask questions in plain English. This eliminates the need for complex queries or familiarity with the data schema.
- **Intelligent Answer Generation:** Q utilizes natural language processing (NLP) to understand the intent behind user questions. Based on the data and defined topics (including synonyms), Q generates the most relevant answer.
- **Dynamic Visualization:** Answers are presented in the most suitable format, either as graphs (for trends, comparisons) or tables depending on the nature of the question.

Ease of Data Access and Analysis: Integrates seamlessly with Amazon S3 and other sources, simplifying data ingestion and preparation. Makes data analysis accessible to a wider range of users, even those without a technical background.

User-Friendly Interface: Supports natural language queries, allowing users to ask questions in plain English and synonyms without needing SQL expertise.

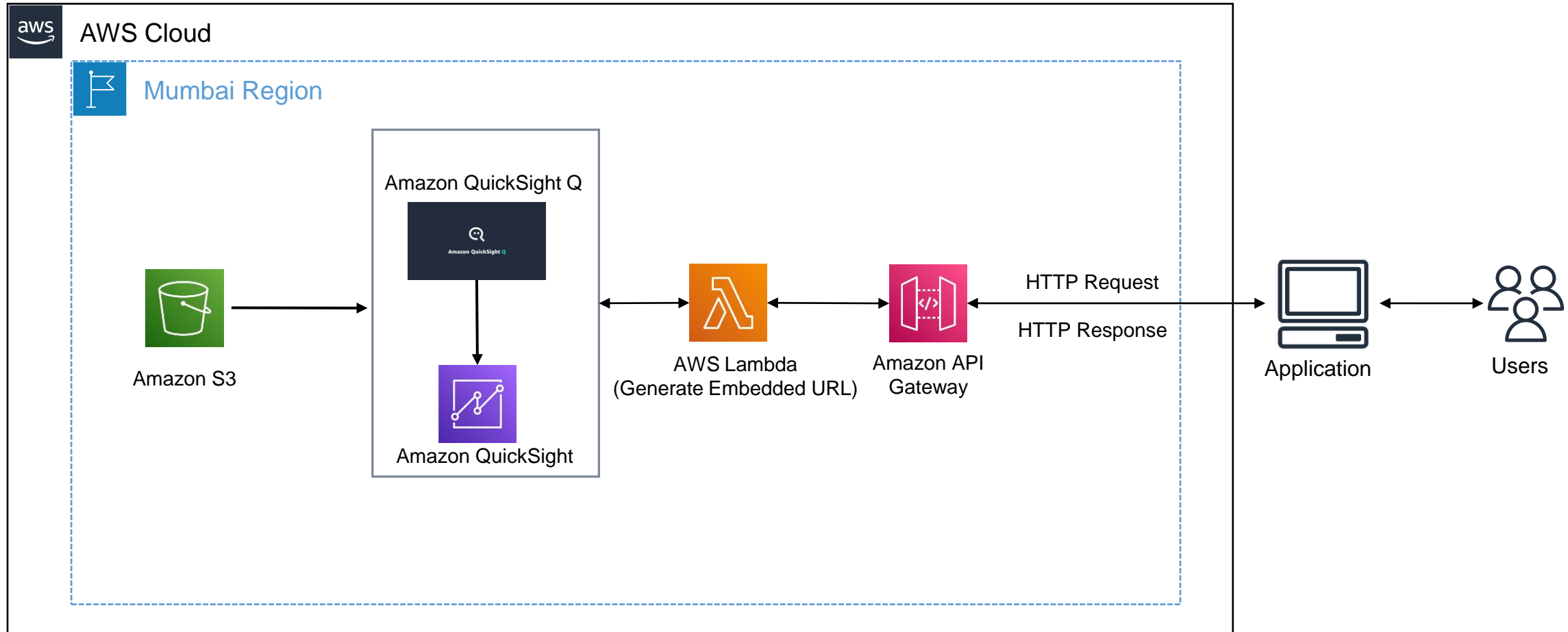
Intelligent Insights: Uses NLP for understanding user intent and generates relevant answers quickly, enhancing decision-making.

Dynamic Visualization: Presents answers in optimal visual formats like graphs or tables, tailored to the nature of the query.

Seamless Integration: Utilizing Amazon API Gateway via HTTP API allows for smooth integration into existing systems, minimizing implementation complexities.

Scalability : Part of AWS ecosystem, ensuring scalability, reliability, and easy integration with other AWS services

Estimated Architecture – Amazon QuickSight with Q



THANK YOU

Reach out to us at:

Account Manager: Aditya Rajvanshi

Email ID: aditya@cloudthat.com

Ph. No.: 8527767980