

# PIXPLORE.

**Group 1**

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# WHAT PIXPLORE OFFERS

Pixplore is a Pinterest-like image gallery application designed to provide users with a seamless solution for efficient digital image management.

## **Seamless Image Management:**

Secure upload and tagging of images, organize and manage large image libraries, for example product catalogs.

## **Automated Image Metadata Extraction:**

Real-time image analysis using Rekognition provides valuable insights into image content, beneficial for marketing teams and businesses.

## **Advanced Search Functionality:**

Thorough extraction of metadata collected from images allows for complex searches using keywords.

# CORE COMPONENTS AND FUNCTIONALITIES

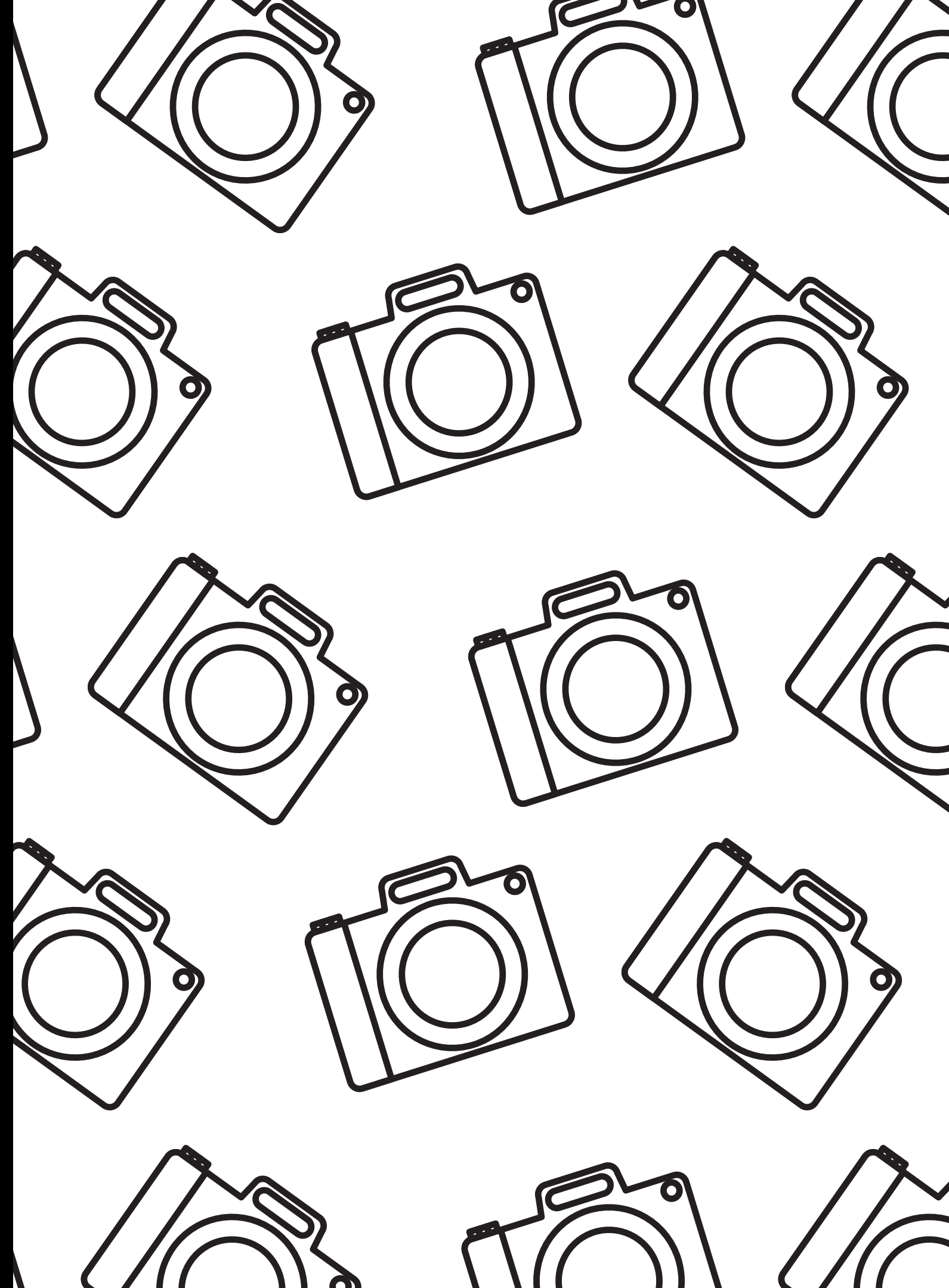
Short overview of the core components of Pixplore.

- LOGIN:** Secure user management and login, powered by AWS Cognito that ensures a seamless and scalable authentication framework.
- UPLOAD:** Effortless image uploads using Amazon S3 with pre-signed URLs, enabling a fast, secure and efficient upload experience for users.
- EXTRACT:** Automated tagging and metadata extraction procured through analysis of images by AWS Rekognition, enhancing image categorisation and usability.
- SEARCH:** Fast, accurate retrieval of images using a combination of tags, labels, and visual features.

We like to call this **LUES** – Login, Upload, Extract, and Search – the four pillars that power Pixplore's seamless and efficient image exploration.

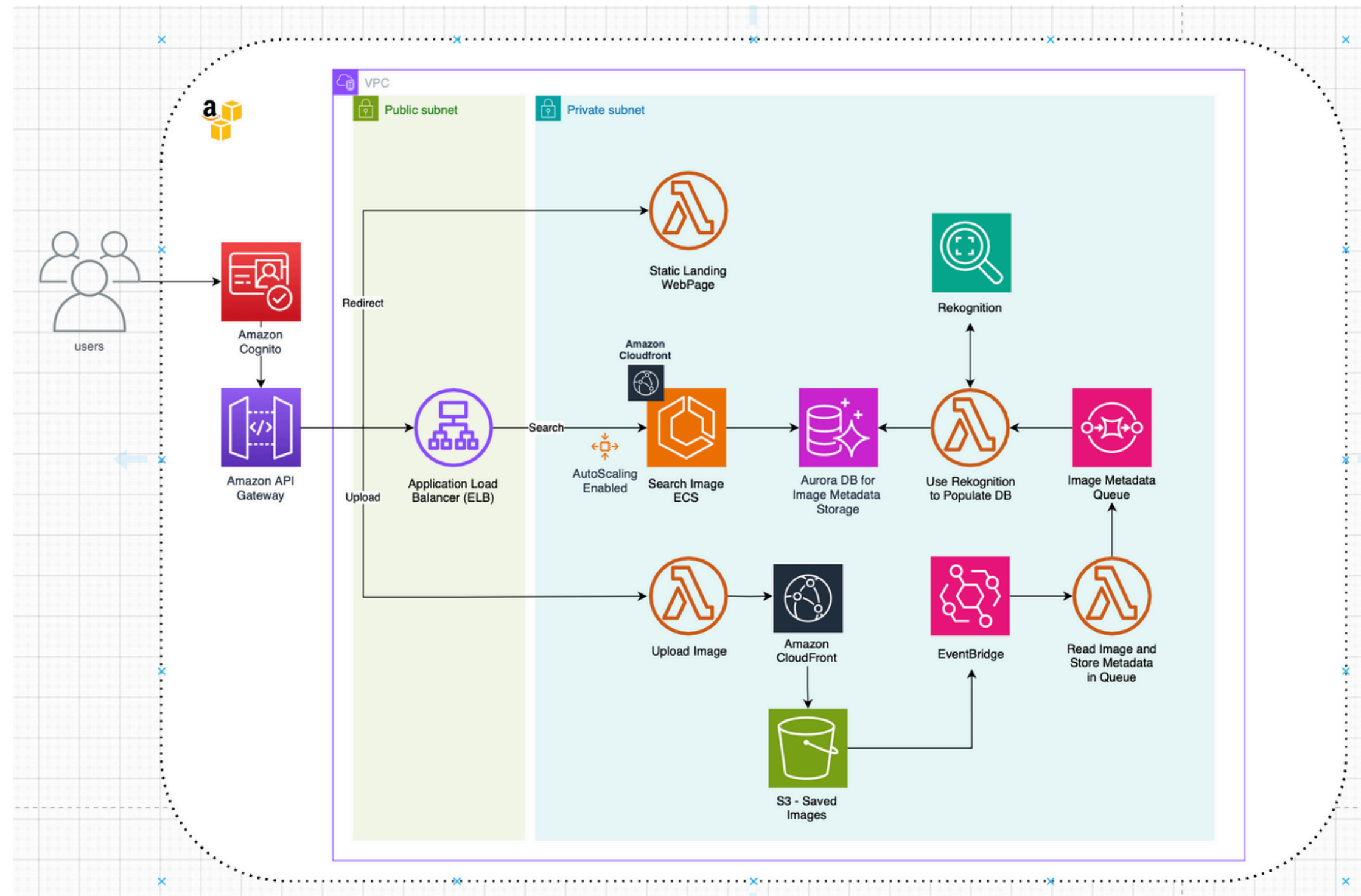
# AWS SERVICES

- Authentication and Login | AWS Cognito
- Image Upload and Storage | Amazon S3
- Metadata Extraction and Analysis | Amazon Rekognition
- Image Metadata Storage | Amazon Aurora DB
- Event-Driven Processing | Amazon EventBridge and SQS
- Image Search and Query | Amazon ECS with Fargate
- RESTful APIs | Amazon API Gateway
- Serverless Backend Logic Compute | AWS Lambda
- Load Distribution | Amazon Elastic Load Balancer
- Monitoring and Logging | Amazon CloudWatch
- Security and Access Control | AWS IAM and VPC





# ARCHITECTURE DIAGRAM



# SIGNUP USING COGNITO



pixplore-user-pool-890742567343.auth.us-east-1.amazoncognito.com

Signin Overview > pixplore-user-pool... CloudWatch | us-east-1

### Sign up with a new account

Username

Email

Password

✓ Password must contain an upper case letter  
✓ Password must contain a number  
✓ Password must contain at least 8 characters  
✓ Password must not contain a leading or trailing space

**Sign up**

Already have an account? [Sign in](#)


# LOGIN USING COGNITO



Sign in with your username and password

Username

Password

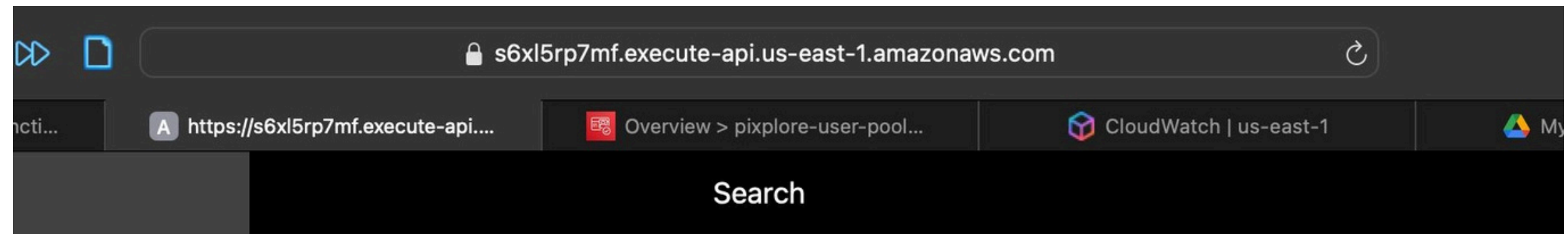
 

[Forgot your password?](#)

**Sign in**


Need an account? [Sign up](#)

# USER UPLOADING IMAGE



**Upload Image**

Select image to upload:

 car.jpeg

**Upload**

The file has been successfully uploaded!



# SEARCHING USING KEYWORDS



Browser tabs: functi... | A https://s6xl5rp7mf.execute-api... | Overview > pixplore-user-pool... | CloudWatch | us-east-1

Address bar: s6xl5rp7mf.execute-api.us-east-1.amazonaws.com


Search

**Search Labels**

Label to search:

car

Search

A silver sports car, likely a McLaren, shown from a side profile view.



**THAT'S A WRAP!**