Techfest
INDIAN INSTITUTE OF TECHNOLOGY, BOMBAY

Techfest IIT Bombay Masterclass

Jeevesh Awal
CTO | PrismCode

PRISMCODE
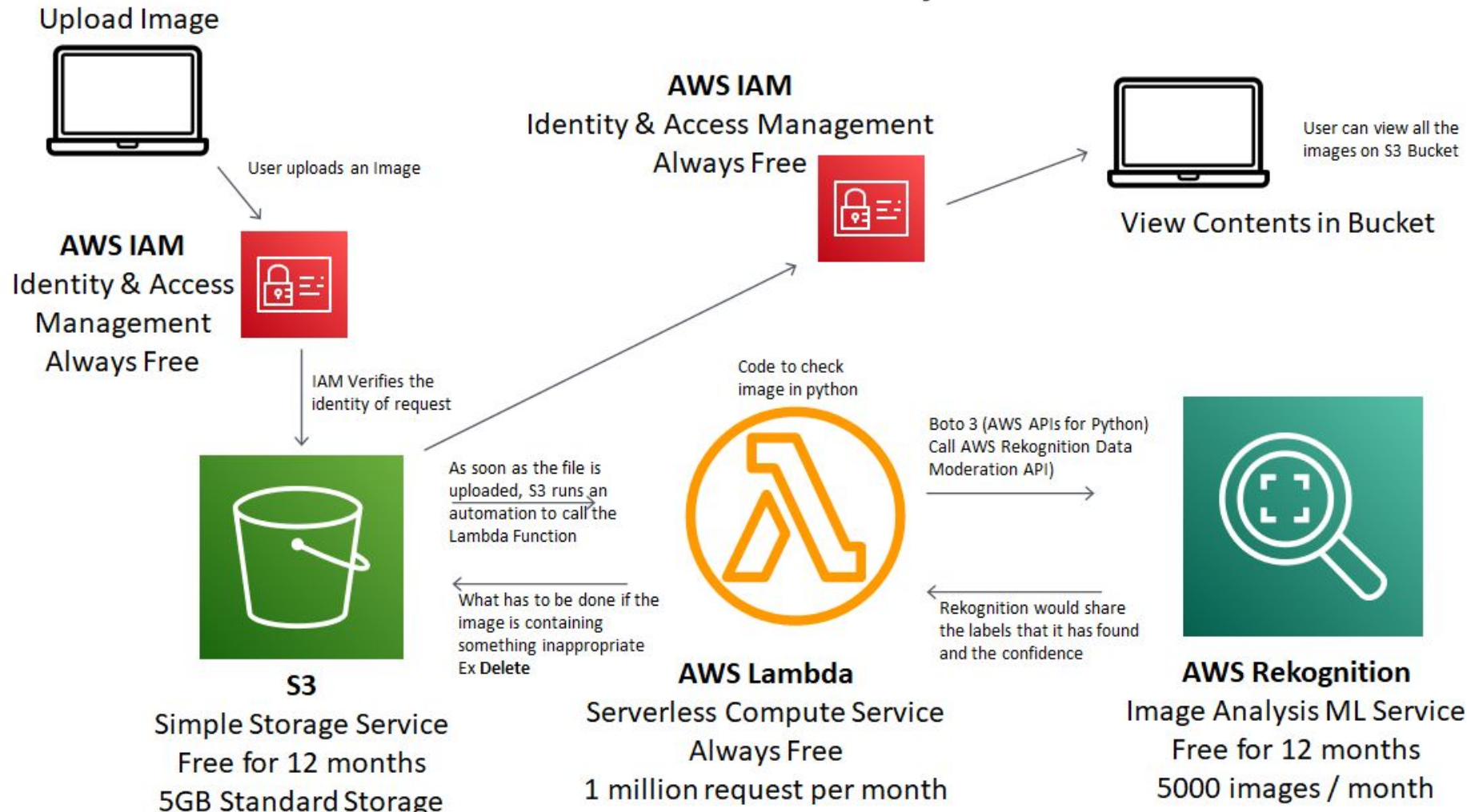PRISMCODE INFO SOLUTIONS PVT LTD
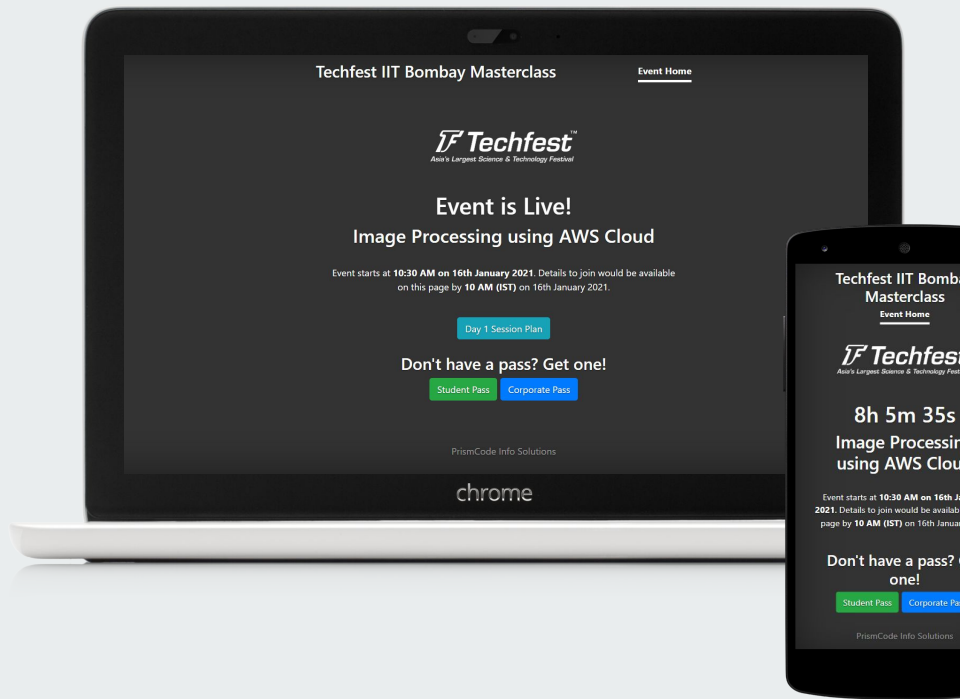
Session Plan Day 2

AWS Simple Storage Service	10:30 - 11:30
PHP with S3 to GET list of objects	11:35 - 12:00
AWS Rekognition	12:00 - 01:00
Boto3 for Python	01:50 -02:00
AWS Lambda and IAM Roles	02:00 - 03:00
AWS CloudWatch	03:00 - 03:15
Auto Trigger Lambda	03:15 - 04:00
Automatic Data Filtration and Data Removal	04:00 - 05:00
GIT, LinkedIn Certificate & Future Scope	05:00 - 06:00

Content Filtration System

Upload Image

User uploads an Image

AWS IAM
Identity & Access Management
Always Free

AWS IAM
Identity & Access
Management
Always Free

User can view all the images on S3 Bucket

View Contents in Bucket

IAM Verifies the identity of request

Code to check image in python

As soon as the file is uploaded, S3 runs an automation to call the Lambda Function

Boto 3 (AWS APIs for Python)
Call AWS Rekognition Data Moderation API)

What has to be done if the image is containing something inappropriate Ex **Delete**

Rekognition would share the labels that it has found and the confidence

S3
Simple Storage Service
Free for 12 months
5GB Standard Storage

AWS Lambda
Serverless Compute Service
Always Free
1 million request per month

AWS Rekognition
Image Analysis ML Service
Free for 12 months
5000 images / month

AWS Simple Storage Service

Amazon Simple Storage Service is storage for the Internet. It is designed to make web-scale computing easier for developers.

Amazon S3 has a simple web services interface that you can use to store and retrieve any amount of data, at any time, from anywhere on the web.

Amazon S3 Concepts

Bucket: A bucket is a container for objects stored in Amazon S3. Every object is contained in a bucket.

Objects: Objects are the fundamental entities stored in Amazon S3. Objects consist of object data and metadata. The data portion is opaque to Amazon S3. The metadata is a set of name-value pairs that describe the object.

Amazon S3 Concepts

Key: A key is the unique identifier for an object within a bucket. Every object in a bucket has exactly one key. The combination of a bucket, key, and version ID uniquely identify each object. So you can think of Amazon S3 as a basic data map between "bucket + key + version" and the object itself.

Amazon S3 Concepts

Regions: You can choose the geographical AWS Region where Amazon S3 will store the buckets that you create. You might choose a Region to optimize latency, minimize costs, or address regulatory requirements. Objects stored in a Region never leave the Region unless you explicitly transfer them to another Region. For example, objects stored in the Europe (Ireland) Region never leave it.

Amazon S3 Concepts

Storage Classes: Amazon S3 offers a range of storage classes designed for different use cases. These include Amazon S3 STANDARD for general-purpose storage of frequently accessed data, Amazon S3 STANDARD_IA for long-lived, but less frequently accessed data, and S3 Glacier for long-term archive.

Amazon S3 Concepts

Bucket Policies: Bucket policies provide centralized access control to buckets and objects based on a variety of conditions, including Amazon S3 operations, requesters, resources, and aspects of the request (for example, IP address). The policies are expressed in the *access policy language* and enable centralized management of permissions.

Questions?

PHP - AWS SDK with S3

Practical Session

AWS Rekognition

Practical Session

PHP - AWS SDK with S3

Practical Session

AWS Lambda and IAM Roles

Practical Session

Questions?