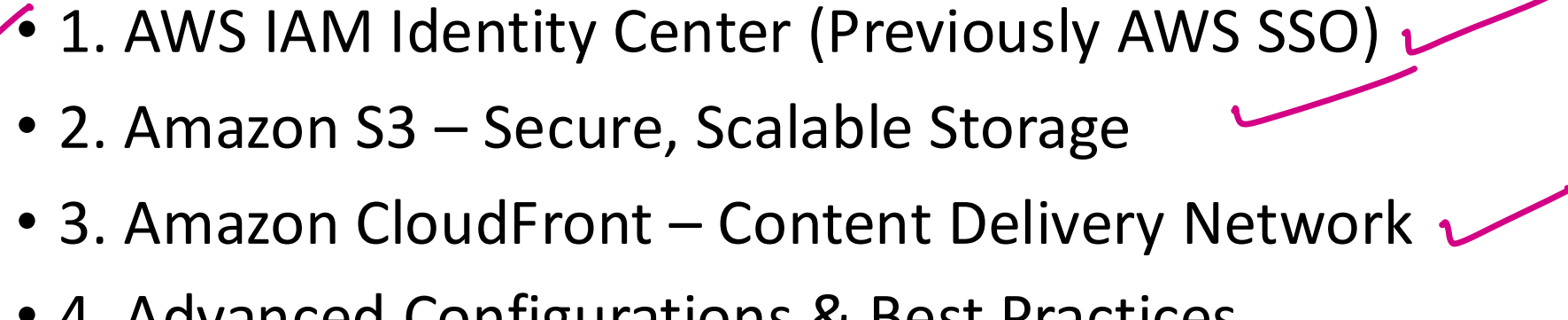# Agenda

- 1. AWS IAM Identity Center (Previously AWS SSO)
- 2. Amazon S3 – Secure, Scalable Storage
- 3. Amazon CloudFront – Content Delivery Network
- 4. Advanced Configurations & Best Practices
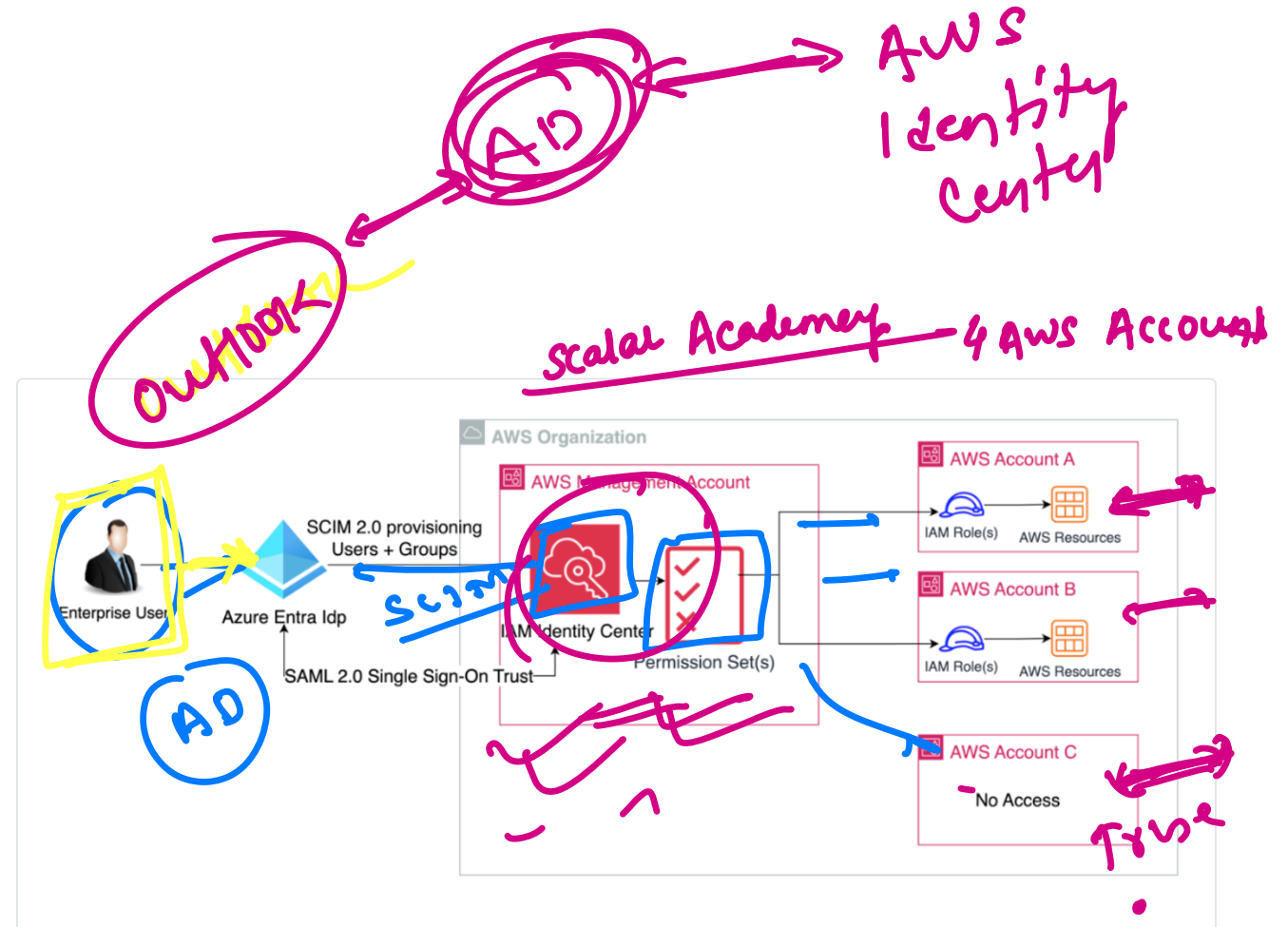- 5. Hands-on Lab
- 6. Quiz & Q&A

IAM Identity Center (Formerly Known as SSO)

- Users →
- Groups →
- Multi Account Permissions →
- Permission Sets →

AWS Identity Center

AD

OUTLOOK

Scalar Academy → 4 AWS Account

AWS Organization

Enterprise User → Azure Entra Idp

SCIM 2.0 provisioning Users + Groups

SCIM

SAML 2.0 Single Sign-On Trust

AD

AWS Management Account
IAM Identity Center
Permission Set(s)

AWS Account A
IAM Role(s) → AWS Resources

AWS Account B
IAM Role(s) → AWS Resources

AWS Account C
No Access

Trust

Amazon S3 → File System: (S3fs)

Buckets
- Top-level containers for storing data in Amazon S3.
- Each object is stored in a bucket.
- Globally unique name required (e.g., my-app-assets).

Objects
- Fundamental entities stored in S3 (e.g., files, images, documents).
- Consist of:
  - **Key** (unique name within the bucket)
  - **Value** (actual data)
  - **Metadata**
  - **Version ID** (if versioning enabled)

Versioning

Access Control

Lifecycle Policies

Definition: For data accessed less frequently but requires rapid access when needed.
Prod Example: Monthly reporting data, compliance logs, or backups you retrieve occasionally.

Definition: Default storage class for frequently accessed data with low latency and high throughput.
Prod Example: Hosting dynamic website assets, mobile app images, or real-time data processing inputs.

Definition: Lower-cost infrequent access storage in a single Availability Zone.
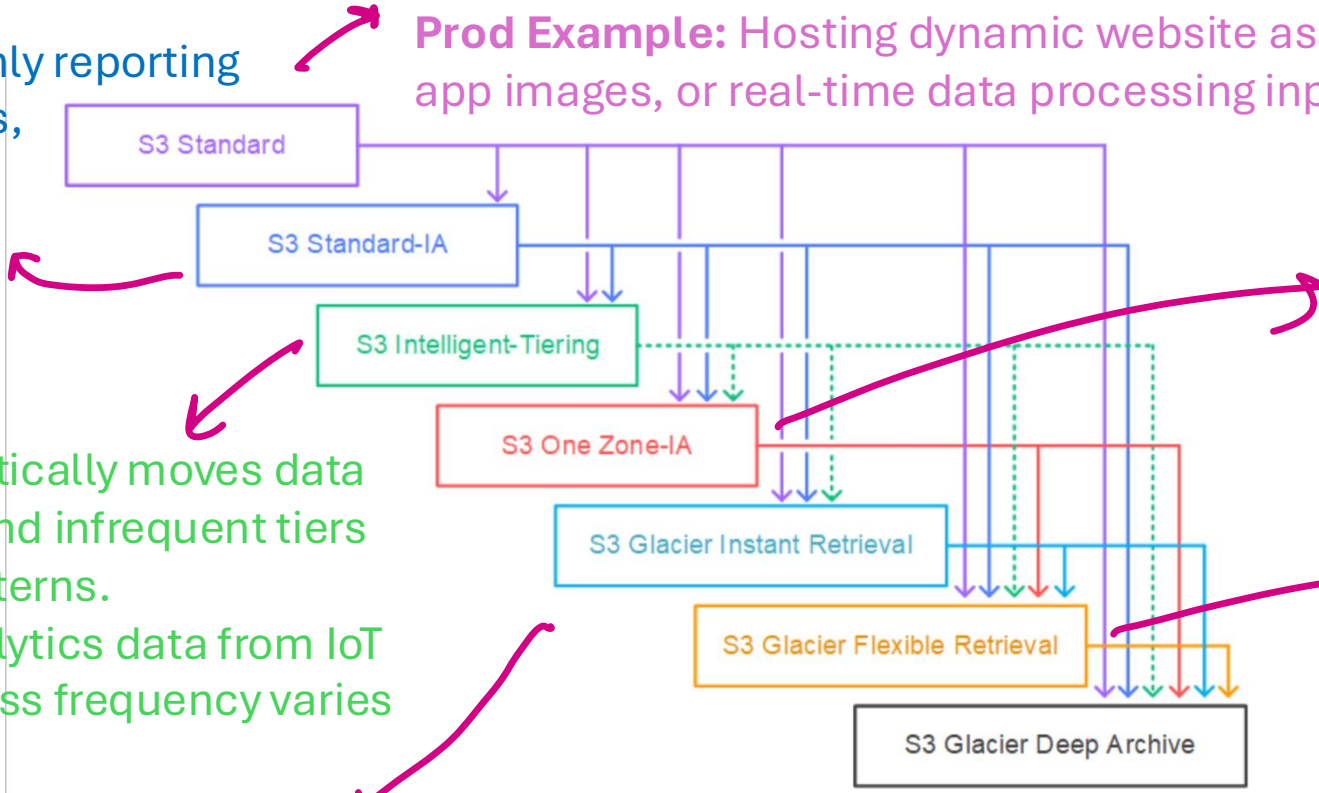**Prod Example:** Re-creatable data such as image thumbnails or temporary backup copies.

Definition: Automatically moves data between frequent and infrequent tiers based on usage patterns.
Prod Example: Analytics data from IoT devices where access frequency varies unpredictably.

Definition: Cost-effective archive storage with flexible access times (minutes to hours).
Prod Example: Long-term backups of customer data, HR records, or archived video footage

Definition: Low-cost archive class with millisecond access for rarely accessed data.
Prod Example: Medical imaging or financial documents needed instantly for audits.

Definition: Lowest-cost storage for archival with retrieval time from 12 hours or more.
Prod Example: Regulatory compliance data retention for 7–10 years (e.g., tax records, legal archives).

S3 Standard

S3 Standard-IA

S3 Intelligent-Tiering

S3 One Zone-IA

S3 Glacier Instant Retrieval

S3 Glacier Flexible Retrieval

S3 Glacier Deep Archive

S3 Event Notifications

Encryption

Logging and Monitoring
•**S3 Access Logs** – Log all access requests.
•**CloudWatch Metrics** – Track storage usage and requests.
•**AWS CloudTrail** – Monitor API calls to S3.

AWS CloudFront

Hosting a static website using AWS Cloudfront

AWS CloudFront

Hosting a static website using AWS Cloudfront