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# Middleware for Cloud Applications – AWS EC2 / Lambda

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# In this segment

## Middleware for Cloud Applications - AWS

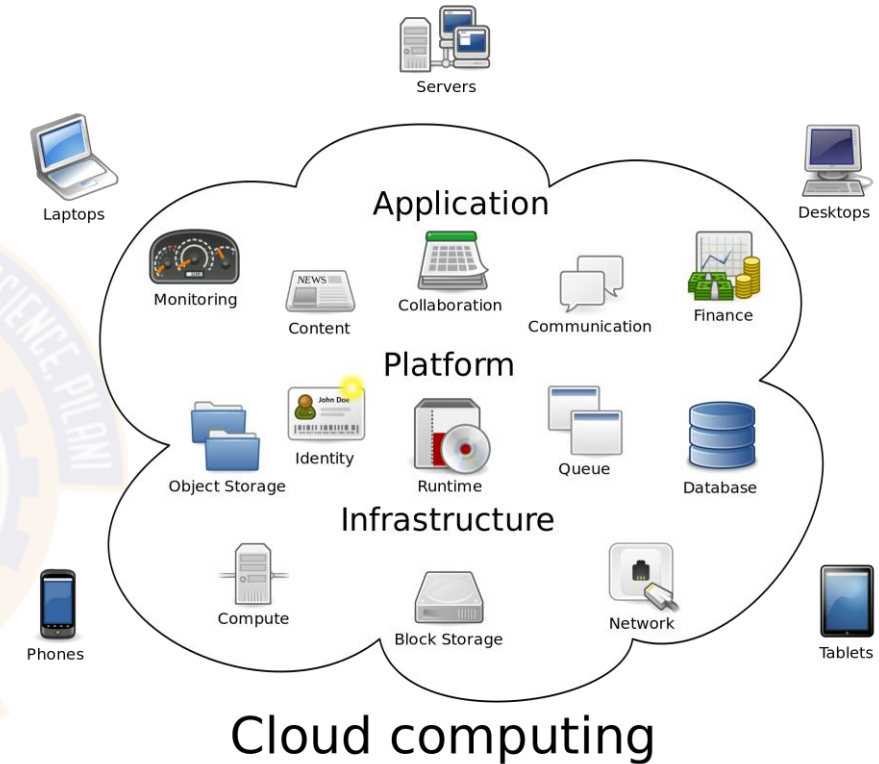
- Cloud Computing Overview
- AWS Cloud Components
- Launching EC2 for Linux / Windows - Demo
- AWS Lambda



# Middleware for Cloud Applications - AWS

## Cloud Computing Overview

- Cloud computing is the on-demand availability of computer system resources, especially data storage and computing power, without direct active management by the user
- Cloud computing may be available:
  - Exclusively to one organization (enterprise / private cloud)
  - Multiple organizations (public cloud)
  - Combination (hybrid)
- Cloud computing relies on sharing of resources to achieve coherence and economies of scale
- Major cloud providers:
  - Amazon – AWS
  - Microsoft – Azure
  - Google – Google Cloud



# Middleware for Cloud Applications - AWS

## AWS Components

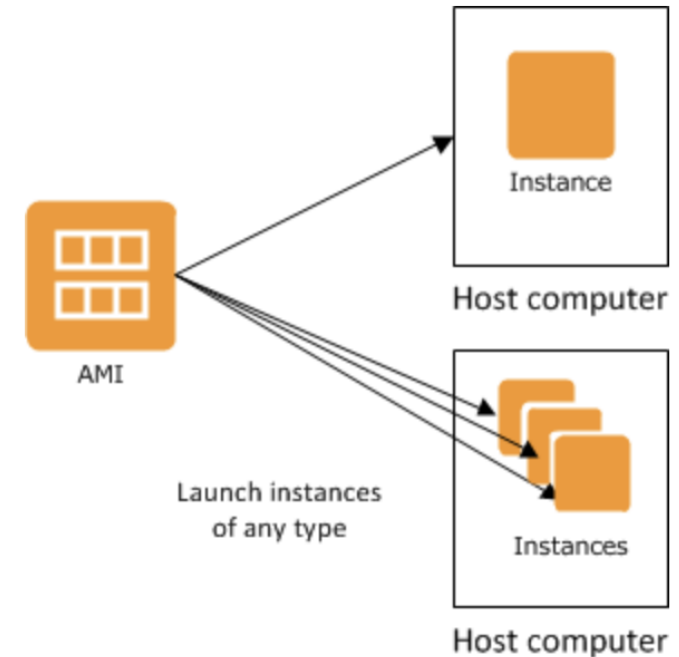
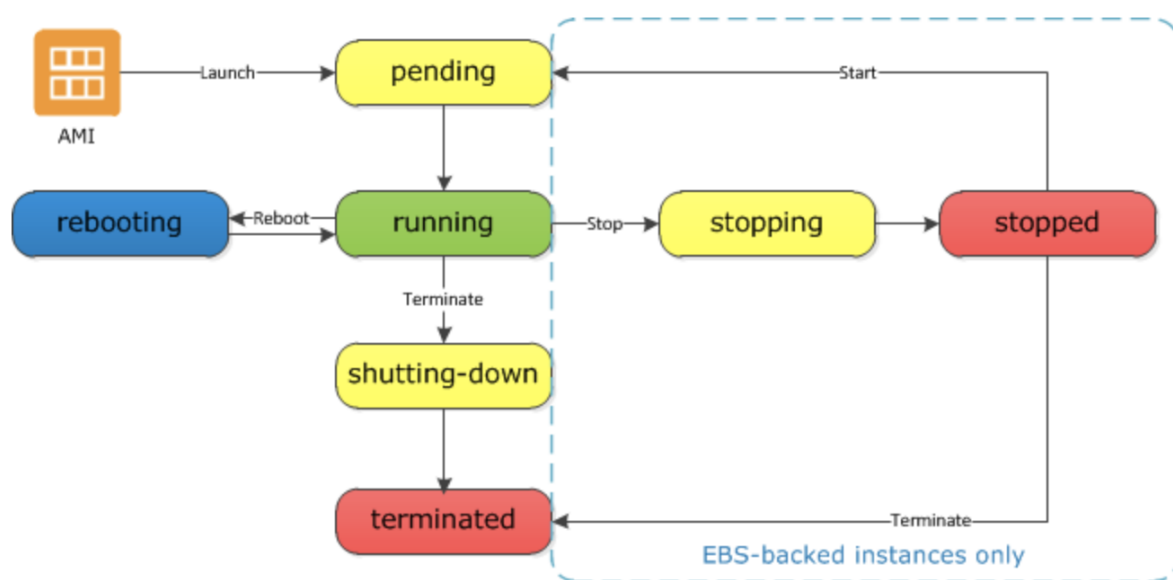
- *Compute – EC2, Elastic Beanstalk, Auto scaling*
- *Storage and Content Delivery – S3, EBS*
- *Database - RDS*
- *Networking – VPC, ELB*
- Analytics
- Enterprise Applications
- Internet of Things
- Mobile Services
- Developer Tools
- Management Tools
- Security and Identity
- Application Services
- Software (maintenance)



# Middleware for Cloud Applications - AWS

## EC2 – AMIs and Instances

- Amazon Machine Image (AMI) is the template for a software configuration (OS, application server etc.)
- Instance(s) is a virtual server in the cloud that's a copy of AMI template





# Middleware for Cloud Applications - AWS

EC2 instance launch and connect

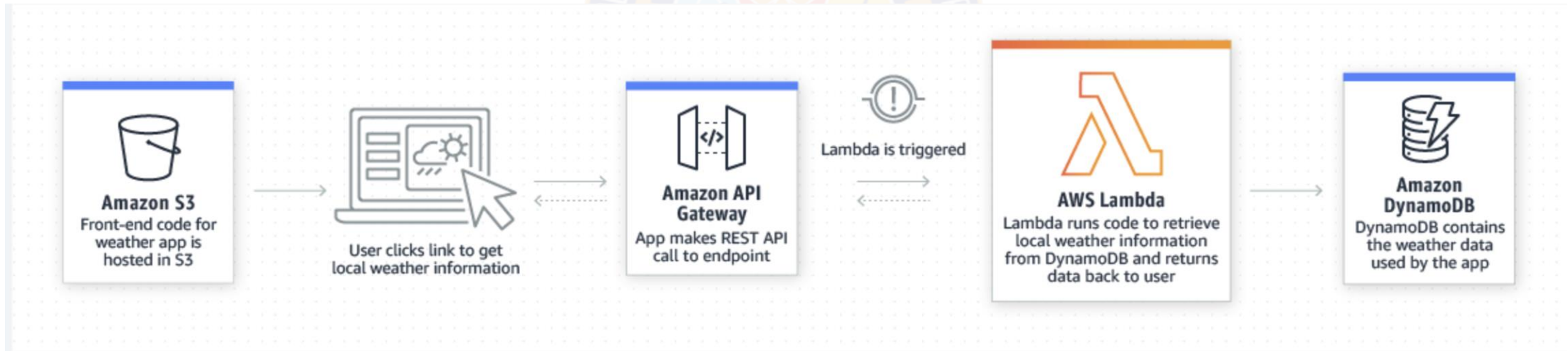
# Demo from console



# Middleware for Cloud Applications - AWS

## AWS Lambda

- AWS Lambda is an event-driven, serverless computing platform provided by Amazon as a part of AWS
- The purpose of Lambda, as compared to AWS EC2, is to simplify building smaller, on-demand applications that are responsive to events and new information
- AWS Lambda supports securely running native Linux executables



# Middleware for Cloud Applications - AWS

## AWS Lambda - Demo

- Demo with ref-arch







# Thank You!

In our next session:  
Hybrid Cloud & Multi-Cloud architecture