

KAUST Summer School (Cloud Computing)



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Introduction



Costs & Billing

- ▶ Day 0: Setting the Stage
- ▶ Day 1: Cloud Computing Overview
- ▶ Day 2: Compute (VMs, Containers, Serverless)
- ▶ Day 3: Storage (Object, Block, Network Storage)
- ▶ Day 4: Networking
- ▶ Day 5: Security



Setting the Stage

- Learning objectives
- Getting ready for hands-on Labs



Learning Objectives

Upon completion of this course, students will be able to:

- Define basic concepts of Cloud Computing
- Create and use a Compute instance (EC2 in AWS Cloud)
- Create and use appropriate cloud Storage with/without Compute instance
- Create a Network of Compute instances in the cloud environment (VPC in AWS Cloud)
- Secure cloud resources and network

After this course, students will be able to benefit from AI products in the cloud, hence expected to:

- Use AWS (or other CSP) for AI projects

Create AWS Account for Hands-on Labs (optional – recommended)

- Visit <https://aws.amazon.com/>
- Use university email or personal account
- Create account (will need debit/credit card number)
- Understand AWS Pricing : <https://aws.amazon.com/free/>

Tier Type			
<input type="checkbox"/> Featured			
<input checked="" type="checkbox"/> 12 Months Free			
<input type="checkbox"/> Always Free			
<input type="checkbox"/> Trials			
Product Categories			
<input type="checkbox"/> Analytics			
<input type="checkbox"/> Application Integration			
<input type="checkbox"/> Artificial Intelligence			
<input type="checkbox"/> Business Productivity			
<input type="checkbox"/> Compute			
<input type="checkbox"/> Containers			
<input type="checkbox"/> Customer Engagement			
<input type="checkbox"/> Database			

COMPUTE	
Free Tier	12 MONTHS FREE
Amazon EC2	
750 Hours	
per month	
Resizable compute capacity in the Cloud.	
750 hours per month of Linux, RHEL, or SLES t2.micro or t3.micro instance dependent on region	
750 hours per month of Windows t2.micro or t3.micro instance dependent on region	
750 hours per month of public IPv4 address regardless of instance type	

STORAGE	
Free Tier	12 MONTHS FREE
Amazon S3	
5 GB	
of standard storage	
Secure, durable, and scalable object storage infrastructure.	
5 GB of Standard Storage	

DATABASE	
Free Tier	12 MONTHS FREE
Amazon RDS	
750 Hours	
per month of database usage (applicable DB engines)	
Managed Relational Database Service for MySQL, PostgreSQL, MariaDB, or SQL Server.	