Section 1

LESSON: Exam Blueprint

https://aws.amazon.com/certification/certified-cloud-practitioner/
https://d1.awsstatic.com/training-and-certification/Docs%20-%20Cloud%20Practitioner/AWS_Certified_Cloud_Practitioner_Exam_Guide_EN_v.1.7.pdf
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/

LESSON: **The 6 Advantages of Cloud**

https://docs.aws.amazon.com/whitepapers/latest/aws-overview/six-advantages-of-cloud-computing.html

Section 3

LESSON: The AWS Global Infrastructure

https://aws.amazon.com/about-aws/global-infrastructure/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-global-infrastructure/

LESSON: Billing and Pricing Overview

https://aws.amazon.com/pricing/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-billing-and-pricing/

LESSON: AWS Acceptable Use Policy

https://aws.amazon.com/aup/

Section 4

LESSON: IAM Overview

https://aws.amazon.com/iam/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/identity-and-access-management/

LESSON: IAM Best Practices

https://docs.aws.amazon.com/IAM/latest/UserGuide/best-practices.html

Section 5

LESSON: Creating an AWS Free Tier Account

https://docs.aws.amazon.com/IAM/latest/UserGuide/best-practices.html

LESSON: Amazon Elastic Compute Cloud (EC2)

https://aws.amazon.com/ec2/faqs/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-compute/

LESSON: Amazon Elastic Container Service (ECS)

https://aws.amazon.com/ecs/faqs/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-compute/

LESSON: AWS Lambda

https://aws.amazon.com/lambda/faqs/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-compute/

LESSON: Amazon LightSail

https://aws.amazon.com/lightsail/faq/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-compute/

LESSON: Instance User Data and Metada Hands-on (optional)

```
#!/bin/bash
yum update -y
yum install httpd -y
systemctl start httpd
systemctl enable httpd
cd /var/www/html
echo "Congratulations, you've launched your first web server on Amazon EC2" > index.html
```

LESSON: Amazon Simple Storage Service (S3)

https://aws.amazon.com/s3/faqs/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-storage/

LESSON: Create S3 bucket and upload data (HOL)

Change the code highlighted in red to your bucket name

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Principal": "*",
            "Action": "s3:GetObject",
            "Resource": "arn:aws:s3:::awscloudpractitionerneal/*"
        }
    ]
}
```

LESSON: Amazon Elastic Block Store (EBS)

https://aws.amazon.com/ebs/faqs/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-storage/

LESSON: Amazon Elastic File System (EFS)

https://aws.amazon.com/efs/faq/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-storage/

LESSON: AWS Storage Gateway

https://aws.amazon.com/storagegateway/features/
https://aws.amazon.com/storagegateway/faqs/

LESSON: Amazon Virtual Private Cloud (VPC)

https://aws.amazon.com/vpc/faqs/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-networking/

LESSON: Security Groups and Network ACLs

https://docs.aws.amazon.com/vpc/latest/userguide/VPC_SecurityGroups.html

LESSON: Public, private and Elastic IP addresses

https://docs.aws.amazon.com/vpc/latest/userguide/vpc-ip-addressing.html

LESSON: NAT Instances and NAT Gateways

https://docs.aws.amazon.com/vpc/latest/userguide/vpc-nat-comparison.html

Section 8

LESSON: Virtual Private Network (VPN) and AWS Direct Connect

https://docs.aws.amazon.com/vpc/latest/userguide/vpn-connections.html
https://aws.amazon.com/directconnect/faqs/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-networking/

Section 9

LESSON: Amazon Relational Database Service (RDS)

https://aws.amazon.com/rds/faqs/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-databases/

LESSON: Amazon DynamoDB

https://aws.amazon.com/dynamodb/faqs/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-databases/

LESSON: Amazon RedShift

https://aws.amazon.com/redshift/faqs/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-databases/

Section 9

LESSON: Amazon ElastiCache

https://aws.amazon.com/elasticache/faqs/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-databases/

Section 10

LESSON: Elastic Load Balancing (ELB)

https://aws.amazon.com/elasticloadbalancing/faqs/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/elastic-load-balancing-and-auto-scaling/

LESSON: Create Application Load Balancer with EC2 instances hands-on (optional)

```
#!/bin/bash
yum update -y
yum install httpd -y
systemctl start httpd
systemctl enable httpd
cd /var/www/html
echo "This is INSTANCE 1" > index.html
```

Section 10

LESSON: Amazon EC2 Auto Scaling

https://aws.amazon.com/autoscaling/faqs/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/elastic-load-balancing-and-auto-scaling/

LESSON: Create ALB with Auto Scaling Group hands-on (optional)

https://aws.amazon.com/autoscaling/faqs/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/elastic-load-balancing-and-auto-scaling/

```
#!/bin/bash
yum update -y
yum install httpd -y
systemctl start httpd
systemctl enable httpd
cd /var/www/html
echo "This is INSTANCE 1" > index.html
```

Section 11

LESSON: Amazon Route 53

https://aws.amazon.com/route53/faqs/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/content-delivery-and-dns-services/

LESSON: Amazon CloudFront

https://aws.amazon.com/cloudfront/faqs/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/content-delivery-and-dns-services/

LESSON: Amazon CloudWatch

https://aws.amazon.com/cloudwatch/faqs/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/monitoring-and-logging-services/

LESSON: Amazon CloudTrail

https://aws.amazon.com/cloudtrail/faqs/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/monitoring-and-logging-services/

LESSON: Amazon CloudFormation

https://aws.amazon.com/cloudformation/faqs/

LESSON: Amazon Elastic BeanStalk

https://aws.amazon.com/elasticbeanstalk/faqs/

LESSON: AWS Database Migration Service

https://aws.amazon.com/dms/faqs/

LESSON: AWS Snowball and Snowmobile

https://aws.amazon.com/snowball/faqs/
https://aws.amazon.com/snowmobile/faqs/

LESSON: Getting Started with Pricing

https://aws.amazon.com/pricing/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/aws-billing-and-pricing/

LESSON: Tools for estimating pricing and TCO

https://calculator.s3.amazonaws.com/index.html
https://aws.amazon.com/tco-calculator/

LESSON: AWS Support Plans

https://aws.amazon.com/premiumsupport/plans/

LESSON: AWS Organizations and Consolidated Billing

https://aws.amazon.com/organizations/
https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/consolidated-billing.html

Section 16

LESSON: The Shared Responsibility Model

https://aws.amazon.com/compliance/shared-responsibility-model/
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/cloud-security/

LESSON: AWS Cloud Compliance and AWS Artifact

https://aws.amazon.com/compliance/
https://aws.amazon.com/artifact/

LESSON: AWS Config and Service Catalog

https://aws.amazon.com/config/faq/
https://aws.amazon.com/servicecatalog/faqs/

LESSON: AWS KMS and CloudHSM

https://aws.amazon.com/kms/faqs/
https://aws.amazon.com/cloudhsm/faqs/

LESSON: AWS Inspector and Trusted Advisor

https://aws.amazon.com/inspector/faqs/
https://aws.amazon.com/premiumsupport/technology/trusted-advisor/faqs/

LESSON: AWS Personal Health Dashboard

https://aws.amazon.com/premiumsupport/technology/personal-health-dashboard/

LESSON: AWS WAF & Shield

https://aws.amazon.com/waf/faq/
https://aws.amazon.com/shield/faqs/

LESSON: Penetration Testing

https://aws.amazon.com/security/penetration-testing/

LESSON: Architecting for the Cloud: AWS Best Practices

https://d1.awsstatic.com/whitepapers/AWS_Cloud_Best_Practices.pdf
https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/architecting-for-the-cloud/

LESSON: The Five Pillars of Operational Excellence

https://aws.amazon.com/blogs/apn/the-5-pillars-of-the-aws-well-architected-framework/

Additional Services and Tools

Some of these can come up on the exam so a high-level understanding is useful:

https://digitalcloud.training/certification-training/aws-certified-cloud-practitioner/additional-aws-services-tools/

LESSON: Application Load Balancer - Path Based Routing

```bash
#!/bin/bash
yum update -y
yum install httpd -y
systemctl start httpd
systemctl enable httpd
cd /var/www/html
aws s3 cp s3://dctlabs/names.csv ./
aws s3 cp s3://dctlabs/index.txt ./
EC2NAME=`cat ./names.csv|sort -R|head -n 1|xargs`
sed "s/INSTANCE/$EC2NAME/" index.txt > index.html
cp index.html orders.html
```

LESSON: CloudFront with ALB and EC2 Custom Origin

```
#!/bin/bash
yum update -y
yum install httpd -y
systemctl start httpd
systemctl enable httpd
cd /var/www/html
aws s3 cp s3://dctlabs/names.csv ./
aws s3 cp s3://dctlabs/index.txt ./
EC2NAME=`cat ./names.csv|sort -R|head -n 1|xargs`
sed "s/INSTANCE/$EC2NAME/" index.txt > index.html
cp index.html orders.html
```

LESSON: Install Wordpress on EC2 using RDS MySQL DB

```
#!/bin/bash
yum update -y
amazon-linux-extras install -y php7.2
yum install -y httpd
systemctl start httpd
systemctl enable httpd
cd /var/www/html
wget https://wordpress.org/latest.tar.fz
tar -xzf latest.tar.gz
cp -r wordpress/* ./
chmod -R 755 wp-content
chown -R apache:apache wp-content
```

LESSON: Install Wordpress on EC2 using RDS MySQL DB (continued)

```
yum install php-mbstring -y
systemctl restart httpd
systemctl restart php-fpm
wget https://www.phpmyadmin.net/downloads/phpMyAdmin-latest-all-languages.tar.gz
mkdir phpMyAdmin && tar -xvzf phpMyAdmin-latest-all-languages.tar.gz -C phpMyAdmin --strip-components 1
rm phpMyAdmin-latest-all-languages.tar.gz

nano config.sample.inc.php

Add text (enter RDS endpoint):
$cfg['Servers'][$i]['host'] = 'RDS MYSQL ENDPOINT';
$cfg['Servers'][$i]['compress'] = false;
$cfg['Servers'][$i]['AllowNoPassword'] = false;
$cfg['Servers'][$i]['connect_type'] = 'tcp';
$cfg['Servers'][$i]['extension'] = 'mysqli';

cp config.sample.inc.php config.inc.php
service httpd restart
```