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## Demo - Amazon Sagemaker



## Module 2 Wrap-up Video



## Student Guide



## Module 2 Knowledge Check

100 pts    Score at least 70.0



### ▼ Module 3 – Implementing a Machine Learning pipeline with Amazon SageMaker

Complete All Items



## Module 3 Introduction Video



## Section 1 - Formulating machine learning problems



## Section 2 - Collecting and securing data



## Section 2a - Extracting, transforming, and loading data

 **Section 2b - Securing your data** **Lab 3.1 - Amazon SageMaker - Creating and importing data** **Section 3 - Evaluating your data** **Section 3a - Describing your data** **Section 3b - Finding correlations** **Lab 3.2 - Amazon SageMaker - Exploring Data** **Section 4 - Feature engineering** **Section 4a - Cleaning your Data** **Section 4b - Dealing with outliers and selecting features** **Lab 3.3 - Amazon SageMaker - Encoding Categorical Data** **Section 5 - Training** **Demo - Training a model using Amazon SageMaker** **Lab 3.4 - Amazon SageMaker - Training a model** **Section 6 - Hosting and using the model** **Lab 3.5 - Amazon SageMaker - Deploying a model**



**Section 7 - Evaluating the accuracy of the model**



**Section 7a - Calculating classification metrics**



**Section 7b - Selecting classification thresholds**



**Lab 3.6 - Amazon SageMaker - Generating model performance metrics**



**Section 8 - Hyperparameter and model tuning**



**Lab 3.7 - Amazon SageMaker - Hyperparameter Tuning**



**Demo - Using Hyperparameters**



**Demo - Accelerate with Amazon Sagemaker Autopilot**



**Module 3 Wrap-up Video**



**Challenge lab**



**Student Guide**



**Module 3 Knowledge Check**

100 pts    Score at least 70.0



▼ **Module 4 – Introducing Forecasting**

Complete All Items



**Module 4 Introduction Video**



**Section 1 - Forecasting overview**



**Section 2 - Processing time series data**



**Section 2a - Special considerations for time series data**



**Section 3 - Using Amazon Forecast**



**Module 4 Wrap-up Video**



**Demo - Using Amazon Forecast**



**Simulation - Creating a forecast with Amazon SageMaker Canvas**



**Lab 4 - Creating a forecast with Amazon Forecast (deprecated)**



**Student Guide**



**Module 4 Knowledge Check**

100 pts    Score at least 70.0



▼ **Module 5 – Introducing Computer Vision (CV)**

Complete All Items



**Module 5 Introduction Video**



**Section 1 - Introduction to computer vision**



**Section 2 - Image and video analysis**



**Section 2a - Facial recognition**



**Demo - Video Analysis with Amazon Rekognition**



**Section 3 - Preparing custom datasets for computer vision**



**Section 3a - Creating the training dataset**



**Section 3b - Creating the test dataset**



**Section 3c - Evaluate and improve your model**



**Demo - Labeling images with Amazon Ground Truth**



**Module 5 Wrap-up Video**



**Student Guide**



**Lab 5 - Guided Lab: Facial Recognition**



**Module 5 Knowledge Check**

100 pts    Score at least 70.0



▼ **Module 6 – Introducing Natural Language Processing**

Complete All Items



**Module 6 Introduction Video**



**Section 1 - Overview of natural language processing**



## Section 2 - Natural language processing managed services



### Module 6 Wrap-up Video



### Demo - Amazon Comprehend



### Demo - Amazon Polly



### Demo - Amazon Translate



### Student Guide



### Lab 6 - Amazon Lex - Create a chatbot



### Module 6 Knowledge Check

100 pts    Score at least 70.0



Complete One Item

## ▼ Module 7: Introducing Generative AI



### Module 7 Introduction Video



### Section 1: What is generative AI?



### Section 2: How does generative AI work?



### Demo: Explore an FM and Use Prompt Engineering in a Notebook



### Section 3: AWS generative AI offerings



## Section 4: Amazon Q Developer



### Demo: Creating a Linear Regression Model Using Amazon Q Developer



### Module 7 Wrap-up Video



### Student Guide



### Module 7 Knowledge Check

100 pts    Score at least 70.0



## ▼ Module 8 – Course Wrap-Up



### Course Wrap-up Video



### Student Guide

## ▼ Sandbox



### Sandbox environment

## ▼ Course Resources



### Explore job opportunities with the AWS Educate Job Board





## Practice Questions in AWS Skill Builder

### ▼ Feedback ⋮



### End of Course Feedback Survey ⋮

### ▼ Badges and Completion Certificates

Prerequisites: Module 2 – Introducing Machine Learning, Module 3 – Implementing a Machine Learning pipeline with Amazon SageMaker, Module 4 – Introducing Forecasting, Module 5 – Introducing Computer Vision (CV), Module 6 – Introducing Natural Language Processing, Module 7: Introducing Generative AI



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