

Google Cloud Computing Foundation Course
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Lecture-75
Module introduction

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Course map



Hi, welcome to Let machines do the work. I am Evan in this module you learned about the ways Google can help you make decisions with machine learning. So far, in this Google cloud computing foundations course, you discussed what the cloud is, the Google cloud platform itself and using GCP to build apps. You then explored storage options the role of API's cloud security networking, automation and monitoring and some of the managed services that Google Offers to process your big data.

In this tenth and final module, you will explore the world of machine learning and the role of machine learning and putting your data to work.

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Learning objectives

Explain what machine learning is, the terminology used, and its value proposition

- Discuss machine learning in the cloud
- Explore building bespoke machine learning models using AI Platform
- Leverage Cloud AutoML to create custom machine learning models
- Apply a range of pre-trained machine learning models using Google's machine learning APIs



The objective of this module is for you to be able to explain what machine learning is the terminology that is used and its value proposition for your business. The specific learning objectives to achieve this include you will be able to discuss machine learning in the cloud explore building bespoke machine learning models using AI platform. Leverage cloud AutoML to create custom machine learning models with no code and apply a range of pre trained machine learning models using Google's machine learning API's.

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Agenda

Introduction to Machine Learning	Lab: Classify Images of Clouds in the Cloud with AutoML Vision
Machine Learning and GCP	Google's Pre-trained Machine Learning APIs
Qwik, Draw	Qwik Start Labs:
Building Bespoke Machine Learning Models with AI Platform	• Cloud Natural Language API
Lab: AI Platform Qwik Start	• Cloud Speech API
Cloud AutoML	• Video Intelligence API
	Quiz
	Summary

This agenda shows the topics that make up this module. The module starts with a high-level introduction to what machine learning is and how it takes place, followed by an introduction to the GCP machine learning spectrum. You will then do a fun exercise we see a firsthand how a

neural network can learn to recognize doodling. Next you will explore the complexities behind developing bespoke machine learning models but also how AI platform, Google's managed machine learning service, makes it easier to take machine learning projects from ideation to production and deployment.

For the first lab, this module you learn how to train a tensor flow model both locally and on AI platform and then how to use your trained model for prediction. Next you learn how cloud auto ml allows you to train high quality custom machine learning models with minimal effort or machine learning expertise. Then it will be followed by a lab well you get a Huge Cloud AutoML vision to train a custom model using images.

In the last topic of this module you will explore the range of pre-trained machine learning API's that Google is made available, for common applications. This will be supported to the completion of three hands-on labs where you use the Cloud Natural Language, Cloud Speech and Video intelligence API's. The module will end with a short quiz and a high-level recap of the key learning points from the module.