

Unit 10 - Let machines do the work

Course outline

How does an NPTEL online course work?

Week 0: Welcome to the Course

Week 1: What's the cloud anyway? Start with a solid platform

Week 2: Use GCP to build your apps

Week 3 : Where do I store this Stuff?

Week 4: There's an API for that! You can't secure the Cloud right?

Week 5 : It helps to Network

Week 6 : It helps to Network (continued)

Week 7 : Let Google keep an eye on things. You have the data, but what are you doing with it

Let machines do the work

- Introduction
- Introduction to ML
- ML and GCP
- Building Bespoke ML models [With Lab]
- Cloud AutoML [With Lab]
- Googles Pre-trained ML APIs [With Labs]
- Recap Quiz
- Summary
- Quiz : Assignment 8**

Google Cloud Computing Foundations Course : Week 8 Feedback Form

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Assignment 8

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Due on 2020-04-22, 23:59 IST.

1) Which of the following statements most accurately describes machine learning? 1 point

- Machine learning is a way to generate data needed for analytics.
- Machine learning is a way to derive predictive insights from data
- Machine learning uses algorithms that are applicable to a focussed group of datasets
- Machine learning has to do with the theory and methods to build machines that think and act like humans

No, the answer is incorrect. Score: 0

Feedback: Machine learning is a way to derive 'predictive' insights from data. You do this using algorithms that are relatively general and applicable to a wide variety of datasets

Accepted Answers: Machine learning is a way to derive predictive insights from data

2) Which statement best describes TensorFlow? 1 point

- Spark ML at scale
- Scikit-learn at scale
- An open source language to build machine learning models
- A proprietary language for building machine learning models

No, the answer is incorrect. Score: 0

Feedback: TensorFlow was developed by Google and has become the leading open-source tool for building ML models

Accepted Answers: An open source language to build machine learning models

3) True or False. Machine learning uses standard algorithms because it allows you to use the same code on different datasets to generate different models 1 point

- True
- False

No, the answer is incorrect. Score: 0

Feedback: The answer is True. ML allows for the use of standard algorithms for generating different models including classification, and linear regression models. The same code can be used on different datasets promoting code reuse

Accepted Answers: True

4) Which option would you select if you want to write your own model leveraging Tensorflow in a managed environment? 1 point

- AI Platform
- Cloud AutoML
- Cloud Dataproc
- Google Machine Learning APIs

No, the answer is incorrect. Score: 0

Feedback: AI platform is a service that can manage resources for the ML models you build using TensorFlow

Accepted Answers: AI Platform

5) Which of the following statements best describes Cloud AutoML? 1 point

- Enables users with no ML expertise to deploy models specific to their business needs
- Enables users with limited ML expertise to train models specific to their business needs
- Enables users with extensive ML expertise to train models specific to their business needs
- Enables users with limited ML expertise to deploy pre-trained models specific to their business needs

No, the answer is incorrect. Score: 0

Feedback: Cloud AutoML is a suite of machine learning products that enables developers with limited machine learning expertise to train high-quality models specific to their business needs. It relies on Google's state-of-the-art transfer learning and neural architecture search technology. Cloud AutoML helps customers with limited ML experience to build models based on their data

Accepted Answers: Enables users with limited ML expertise to train models specific to their business needs

6) Facial detection and facial recognition are the key capabilities of the Cloud Vision API used to detect what an image is and classify it. 1 point

- True
- False

No, the answer is incorrect. Score: 0

Feedback: The answer is False. While facial detection can detect when a face appears in photos, facial recognition isn't supported and Google doesn't store facial detection information on any Google server

Accepted Answers: False

7) There are two APIs that apply to speech. If you need to create a lifelike interaction with users to support a customer service application, which of the two 1 point

Speech APIs would you use?

- Cloud Speech-to-Text
- Cloud Text-to-Speech

No, the answer is incorrect. Score: 0

Feedback: With the Cloud Text-to-Speech API, you can create lifelike interactions with users that transform customer service, device interaction, and other applications

Accepted Answers: Cloud Text-to-Speech

8) The Cloud Translation API supports language detection in cases where the source language is unknown 1 point

- True
- False

No, the answer is incorrect. Score: 0

Feedback: The answer is True. The Cloud Translation API can dynamically translate text between thousands of language pairs. The Cloud Translation API lets websites and programs to programmatically integrate with the translation service The Cloud Translation API supports language detection even in cases where the source language is unknown

Accepted Answers: True

9) You have a requirement to identify parts of speech from unstructured text. Which of the following machine learning APIs should you use for this purpose? 1 point

- Cloud Natural Language API
- Cloud Speech-to-Text API
- Cloud Text-to-Speech API
- Cloud Translation API

No, the answer is incorrect. Score: 0

Feedback: he Cloud Natural Language API can do syntax analysis, breaking down sentences into tokens, identify nouns, verbs, adjectives, and other parts of speech, and figuring out the relationships among the words

Accepted Answers: Cloud Natural Language API

10) The Cloud Video Intelligence API only supports the annotation of MPEG4, MP4, and AVI video formats 1 point

- True
- False

No, the answer is incorrect. Score: 0

Feedback: The answer is False. The Cloud Video Intelligence API is similar to the Vision API, where it can perform a variety of actions including logo detection, facial recognition, text discovery, except the Cloud Video Intelligence API can provide this same feedback on video. The API supports the annotation of common video formats, including MOV, MPEG4, MP4, and AVI

Accepted Answers: False