



<https://github.com/Tizcom/Microsoft-Certification-Day-2022>

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Microsoft Certification Day
อัปสกิลกับการติวสอบแบบเข้มข้น

วันที่ 21 – 22 กรกฎาคม 2565
เวลา 9:00 – 16:30 น.

วิทยากร:
ธีชนก ชนาคลัง

21 กรกฎาคม 2565

	AZ-900 9:00-12:00 น.		DP-900 13:30-16:30 น.
--	-------------------------	--	--------------------------

22 กรกฎาคม 2565

	AI-900 9:00-12:00 น.		SC-900 13:30-16:30 น.
--	-------------------------	--	--------------------------

2

Microsoft Certification Day

อัปสกิลกับการติวสอบแบบเข้มข้น

พิธีเปิด

3

Microsoft Certification Day

อัปสกิลกับการติวสอบแบบเข้มข้น

เนื่องจากการเรียนนี้เป็นการเรียนผ่านระบบ Teams Meeting ดังนั้นจึงขออนุญาตในการที่แต่ละท่านจะเห็นข้อมูลส่วนบุคคลในระบบ และต้องขออภัยที่ทางทีมงานจะไม่มีการบันทึกการสอนได้ฯ ผ่านระบบ

4



วันที่ 22 กรกฎาคม 2565
เวลา 09:00 – 12:00

AI Fundamentals

เพื่อสอบ AI-900



5

แนะนำศูนย์สอบ ที่สามารถรับของที่ระลึก
เมื่อสอบผ่าน AZ-900 AI-900, DP-900, PL-900,
SC-900, MS-700, MB910, MB920
หมดเขต 30 กันยายน 2565

ศูนย์สอบ	ติดต่อ	เบอร์โทร	ที่ตั้ง	ช่วง Covid เปิดหรือไม่
ERT	Patthama	02-718-1599 ต่อ 1903	เลขที่ 2922/135-136 ชั้น 3 (இழப்பகாசா) ห้อง 331-332 อาคารชาญอิสระหวานาوار் 2 ถนนเพชรบุรีตัดใหม่ แขวงบางจากปี เขตด้ำบยาง กรุงเทพฯ 10320	เปิดปกติ
Iverson	Siriwat	095-894-9191	อาคารวัน แปซิฟิค เพลส ชั้น 12 ห้อง 1208-1209 เลขที่ 140 ถนนสุขุมวิท แขวง คลองเตย เขตคลองเตย กรุงเทพมหานคร 10110 (ติด BTS สถานีนานา)	เปิดจีที, พุธ, ศุกร์
Trainocate	Siriporn Nipa	080-669-1428 081-008-7991	999/9 The Offices at CentralWorld , 16F, Unit ML1606-1607, Pathumwan, Bangkok 10330 Thailand	เปิดปกติ

สำหรับผู้สอบ online
ตั้งแต่ 1 July 21
สามารถเลือกติดต่อไปที่
phanwadee@iverson.co.th หรือ
siriporn@trainocate.com
โดย-แนบ Transcript อัปเดท
LinkedIn และ -แจ้งเบอร์ติดต่อกลับ

ทุกศูนย์สอบปิดเสาร์-อาทิตย์

6



Microsoft Cloud Squad Program

มาอัปสกิล เพิ่มทักษะสู่ความเป็นครุฑ์ Cloud ไปกับ Microsoft

สำหรับท่านที่เข้าร่วม Microsoft Virtual Training Day โดยลงทะเบียนต่อหน้าครุฑ์ควรมีค่าวาร์ดแล้วและเข้าร่วมครบ รับฟรี !! exam voucher รับฟรี!! ของที่ระลึกเมื่อสอบผ่าน Microsoft Certifications ในแต่ละวิชา

AZ-900



Azure Fundamentals

DP-900



Data Fundamentals

AI-900



AI Fundamentals

SC-900



Security Fundamentals

MS-700



Teams Administrator

PL-900



Power Platform Fundamentals

MB-910



Dynamics 365 CRM

MB-920



Dynamics 365 ERP



สำหรับผู้สอบผ่าน
AZ-900, DP-900 และ AI-900 เลือกได้ตามว่า
จะรับเสื้อและถุง หรือ แก้วเก็บความเย็น Azure



สำหรับผู้สอบผ่าน
SC-900 และ MS-700 เลือกได้ตามว่า
จะรับเสื้อและถุง หรือ แก้วเก็บความเย็น Microsoft 365



สำหรับผู้สอบผ่าน
PL-900 หรือ
MB-910, MB-920



คลิก[คลิก\[ดูข้อมูลและวันที่หลักสูตรดัง
นี้ที่นี่\]\(https://aka.ms/vtdth\)](https://aka.ms/vtdth)

เงื่อนไข

- สอบที่ศูนย์ TRAINOCATE, IVERSON หรือ ERT และ อัพเดท Linked In
- สอบ Online ให้การ อัพเดท Linked In และบันทึก Transcript พิจารณาเมื่อวันเดียวกัน
- เพื่อรับของที่ระลึกจากครุฑ์ที่ทำคะแนนดีๆ ดังนี้ (เลือกเพียงรายการเดียวที่ต้องการ)
- ห้องเรียนที่ TRAINOCATE ติดต่อ คุณ Siriporn@trainocate.com
- ห้องเรียนที่ IVERSON ติดต่อ คุณ มนัส phanwadee@iverson.co.th

7



ดูข้อมูลหลักสูตรต่างๆ ได้ที่นี่

<https://www.microsoft.com/apac/events/th-th>

เรียนรู้ภายใน 30 วัน ได้ที่นี่

<https://aka.ms/30dayslearnit>

เรียนรู้หลักสูตรต่างๆ

<https://aka.ms/mslearning>

8

Microsoft Support

หลังจากเรียนจบประมาณ 5 วันทำการ ท่านจะได้รับเมลแจ้งลิงค์เพื่อทำการลงทะเบียนสอบ หากไม่ได้รับเมล หรือได้รับแล้วไม่สามารถลงทะเบียนสอบได้ ให้เข้าลิงค์นี้เพื่อแจ้งได้ที่ **Certification support** ที่นี่ <https://aka.ms/certificationsupportth>

9

Join LINE OpenChat

You've been invited to join "**Microsoft Cloud Squad**" by Spark Tech Thailand. Visit the link below to join the OpenChat.

ข้อมูลข่าวสารทั้งหมดจะได้รับการแจ้งผ่านทาง
Line OpenChat
<https://line.me/ti/g2/cUJu4AdnVTyxN9GXCAXI5Q>

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Join LINE OpenChat by Spark Tech Thailand (ไลน์ *OpenChat* ของพันธมิตรในโครงการนี้ของเรา เพื่อเอาไว้สื่อสารรายละเอียดโครงการครับ)



You've been invited to join "**Microsoft Cloud Squad**" by Spark Tech Thailand. Visit the link below to join the OpenChat.

ข้อมูลข่าวสารทั้งหมดจะได้รับการแจ้งผ่านทาง *Line OpenChat* นี้ครับ

<https://line.me/ti/g2/cUJu4AdnVTyxN9GXCAXI5Q>



11

Microsoft Azure

Microsoft Azure AI Fundamentals [AI-900]

A photograph of two people sitting at a wooden table in a modern office setting, looking at a laptop screen displaying various charts and graphs. The person on the right is pointing at the screen. The background shows a brick wall and shelves.

12

Tissana Tanaklang

**Software and Solution Development Trainer
Iverson Training Center Co., Ltd.
tissana@iverson.co.th , tissana_t@hotmail.com**

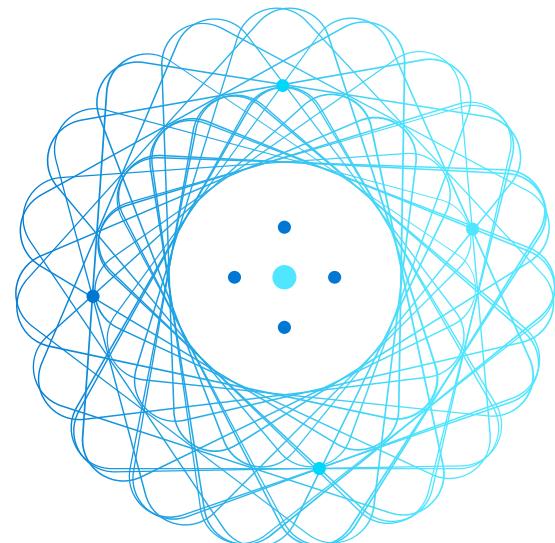
- Microsoft Certified Trainer (MCT)
- Microsoft Certified Azure Data Engineer Associate
- Microsoft Certified Azure Data Scientist Associate
- Microsoft Certified Power BI Data Analyst Associate
- Microsoft Certified Azure Data Fundamentals
- Microsoft Certified Azure AI Engineer Associate
- Microsoft Certified Azure AI Fundamentals
- Microsoft Certified Azure Fundamentals
- Microsoft Certified Power Platform Fundamentals



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Explore Fundamentals of Artificial Intelligence



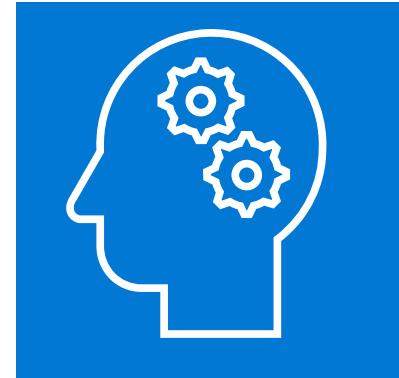
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What is Artificial Intelligence?

Software that imitates human capabilities

- Predicting outcomes and recognizing patterns based on historic data
- Recognizing abnormal events and making decisions
- Interpreting visual input
- Understanding language, and engaging in conversations
- Extracting information from sources to gain knowledge



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Common Artificial Intelligence Workloads

	Machine Learning	Predictive models based on data and statistics – the foundation for AI
	Anomaly Detection	Systems that detect unusual patterns or events, enabling pre-emptive action
	Computer Vision	Applications that interpret visual input from cameras, images, or videos
	Natural Language Processing	Applications that can interpret written or spoken language, and engage in dialogs with human users
	Knowledge Mining	Extract information from data sources to create a searchable knowledge store

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Principles of Responsible AI

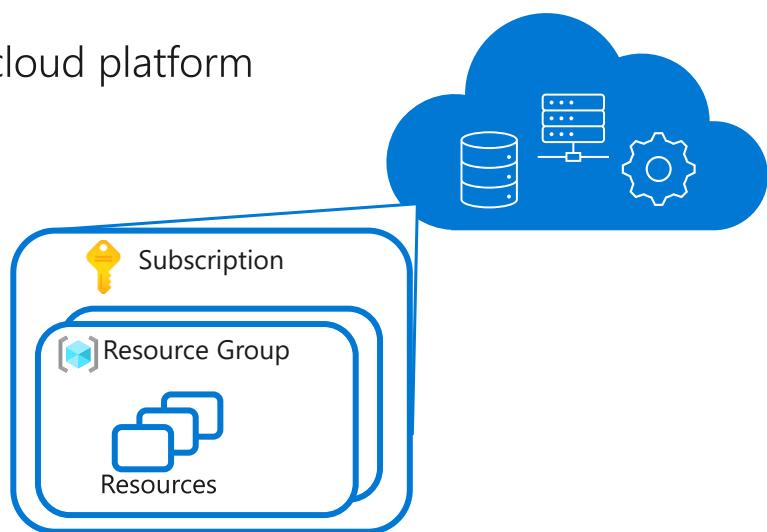
	Challenge or Risk	Example
 Fairness	Bias can affect results	A loan-approval model discriminates by gender due to bias in the data with which it was trained
 Reliability & Safety	Errors may cause harm	An autonomous vehicle experiences a system failure and causes a collision
 Privacy & Security	Data could be exposed	A medical diagnostic bot is trained using sensitive patient data, which is stored insecurely
 Inclusiveness	Solutions may not work for everyone	A predictive app provides no audio output for visually impaired users
 Transparency	Users must trust a complex system	An AI-based financial tool makes investment recommendations - what are they based on?
 Accountability	Who's liable for AI-driven decisions?	An innocent person is convicted of a crime based on evidence from facial recognition – who's responsible?

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Azure Basics

Scalable, reliable cloud platform

- Data storage
- Compute
- Services



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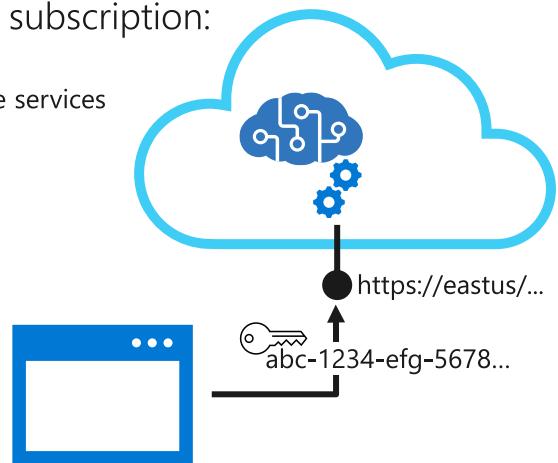
AI Services in Microsoft Azure

	Azure Machine Learning	A platform for training, deploying, and managing machine learning models
	Cognitive Services	A suite of services with four main pillars: Vision, Speech, Language, Decision
	Azure Bot Service	A cloud-based platform for developing and managing conversational bots
	Azure Cognitive Search	Data extraction, enrichment, and indexing for intelligent search and knowledge mining

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Cognitive Services

- AI application resources in an Azure subscription:
 - Standalone resources for specific services
 - General *Cognitive Services* resource for multiple services
- Consumed by applications via:
 - A REST endpoint (<https://> address)
 - An authentication key or authorization token



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Question

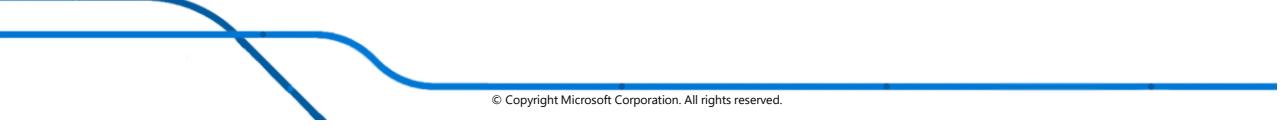
Workloads Types

Anomaly detection
Computer vision
Conversational AI
Knowledge mining
Natural language processing

Answer Area

Workload Type	An automated chat to answer questions about refunds and exchange
Workload Type	Determining whether a photo contains a person
Workload Type	Determining whether a review is positive or negative

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Answer

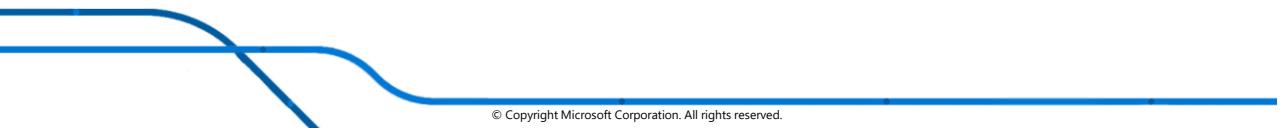
Workloads Types

Anomaly detection
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Natural language processing

Answer Area

Conversational AI	An automated chat to answer questions about refunds and exchange
Computer vision	Determining whether a photo contains a person
Natural language processing	Determining whether a review is positive or negative

22



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Question

When developing an AI system for self-driving cars, the Microsoft for responsible AI should be applied to ensure consistent operation system during unexpected circumstances.

inclusiveness
accountability
reliability and safety
fairness

principle
of the

23

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Answer

When developing an AI system for self-driving cars, the Microsoft for responsible AI should be applied to ensure consistent operation system during unexpected circumstances.

inclusiveness
accountability
reliability and safety
fairness

principle
of the

24

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Question

Workload Types

- Anomaly detection
- Computer vision
- Machine Learning (Regression)
- Natural language processing

Answer Area

- | | |
|---------------|---|
| Workload Type | Identify handwritten letters. |
| Workload Type | Predict the sentiment of a social media post. |
| Workload Type | Identify a fraudulent credit card payment. |
| Workload Type | Predict next month's toy sales. |

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Answer

Workload Types

- Anomaly detection
- Computer vision
- Machine Learning (Regression)
- Natural language processing

Answer Area

- | | |
|-------------------------------|---|
| Computer vision | Identify handwritten letters. |
| Natural language processing | Predict the sentiment of a social media post. |
| Anomaly detection | Identify a fraudulent credit card payment. |
| Machine Learning (Regression) | Predict next month's toy sales. |

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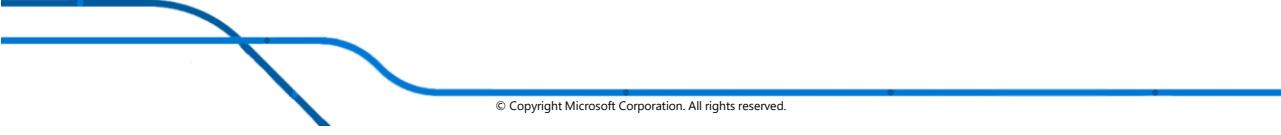
26

Question

What are three Microsoft guiding principles for responsible AI? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. knowledgeability**
- B. decisiveness**
- C. inclusiveness**
- D. fairness**
- E. opinionatedness**
- F. reliability and safety**



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27

Answer

What are three Microsoft guiding principles for responsible AI? Each correct answer presents a complete solution.

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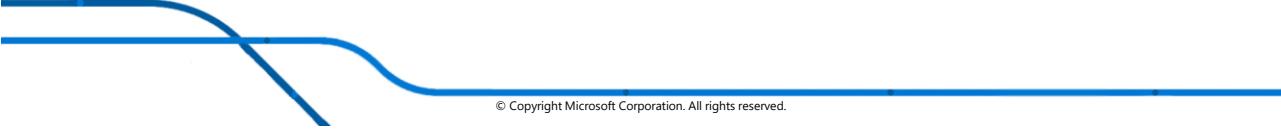
28

Question

Returning a bounding box that indicates the location of a vehicle in an image is an example of

- image classification.
- object detection.
- optical character recognizer (OCR).
- semantic segmentation.

29



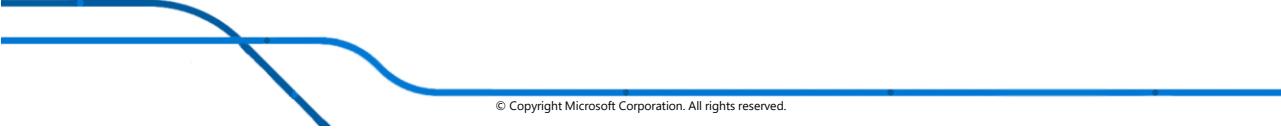
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Answer

Returning a bounding box that indicates the location of a vehicle in an image is an example of

- image classification.
- object detection.
- optical character recognizer (OCR).
- semantic segmentation.

30



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Question

You run a charity event that involves posting photos of people wearing sunglasses on Twitter.

You need to ensure that you only retweet photos that meet the following requirements:

- Include one or more faces.
- Contain at least one person wearing sunglasses.

What should you use to analyze the images?

- A.** the Verify operation in the Face service
- B.** the Detect operation in the Face service
- C.** the Describe Image operation in the Computer Vision service
- D.** the Analyze Image operation in the Computer Vision service



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Answer

You run a charity event that involves posting photos of people wearing sunglasses on Twitter.

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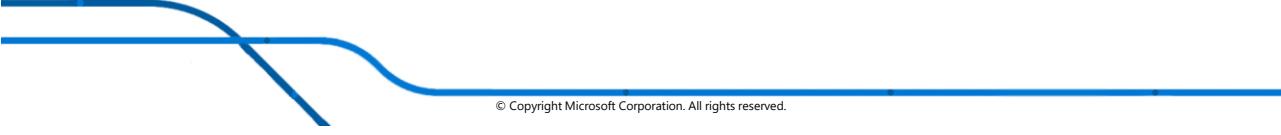
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Question

Principles	Answer Area
Fairness	
Privacy and security	
Reliability and safety	
Transparency	
	<p>The system must not discriminate based on gender, race</p> <p>Personal data must be visible only to approve</p> <p>Automated decision-making processes must be recorded so that approved users can identify why a decision was made</p>

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Answer

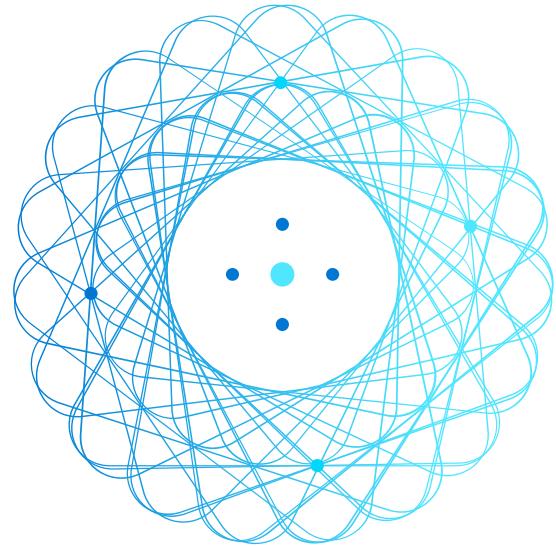
Principles	Answer Area
Fairness	The system must not discriminate based on gender, race
Privacy and security	Personal data must be visible only to approve
Reliability and safety	
Transparency	Automated decision-making processes must be recorded so that approved users can identify why a decision was made



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Explore Fundamentals of Machine Learning

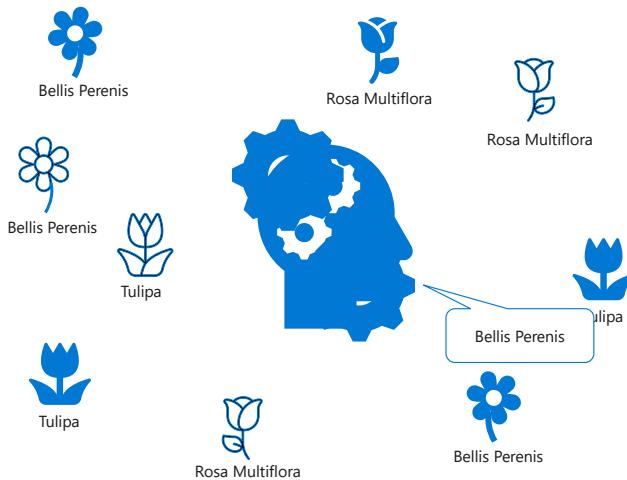


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What is Machine Learning?

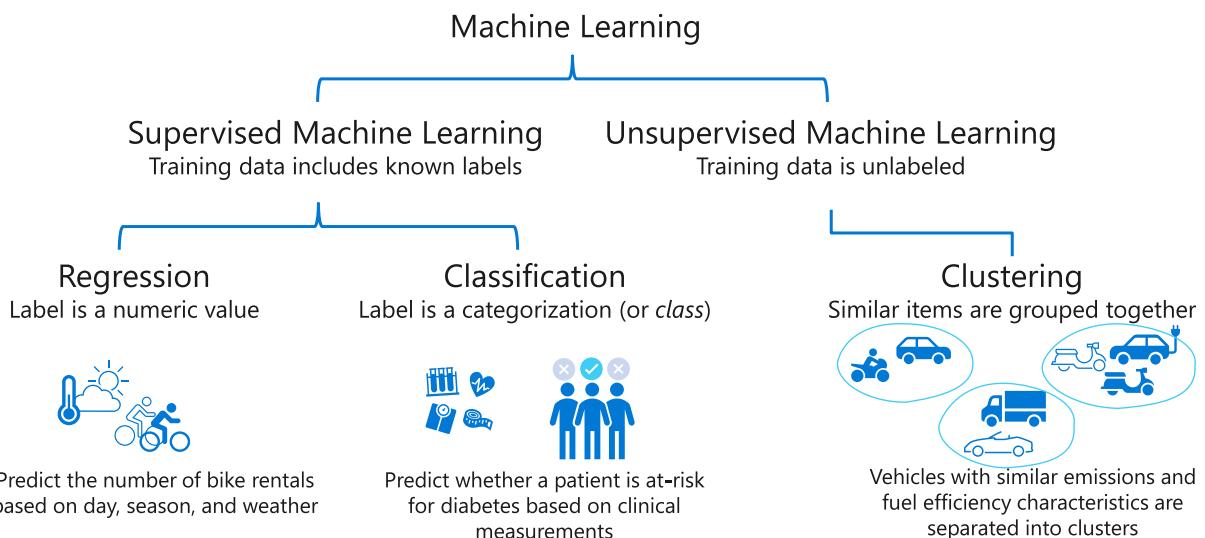
Creating predictive models by finding relationships in data



1. A botanist collects some samples of flowers
2. Each sample has a set of *features* (characteristics) and a *label* (the species)
3. An algorithm is used to find the relationship between the features and the label
4. The result is a *model* that encapsulates those relationships
5. The model can predict the label of a new sample based on its features

36

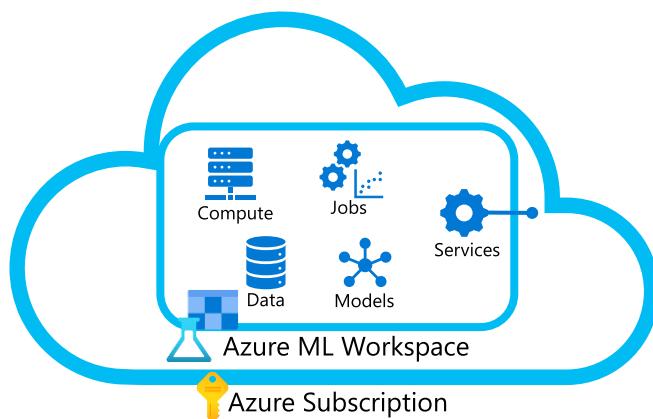
Types of Machine Learning



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What is Azure Machine Learning?

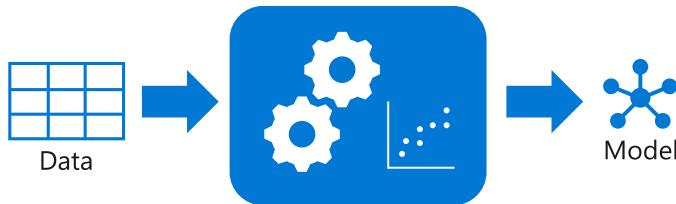
A cloud-based platform for machine learning



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Automated Machine Learning

Supply the data and desired *supervised* model type, and let Azure Machine Learning find the best model

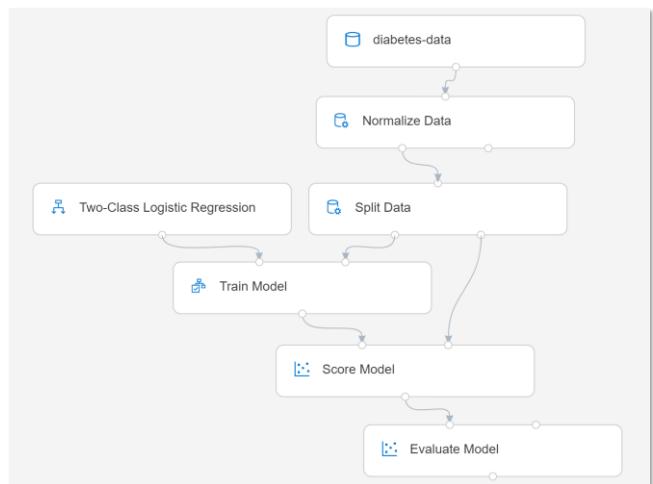


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Azure Machine Learning Designer

Visual tool for creating a machine learning *pipeline*

1. Use a *training pipeline* to train and evaluate a model
2. Create an *inference pipeline* to predict labels from new data
3. Deploy the inference pipeline as a *service* for apps to use



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Question

You plan to deploy an Azure Machine Learning model as a service that will be used by client applications.

Which three processes should you perform in sequence before you deploy the model? To answer, move the appropriate processes from the list of processes to the answer area and arrange them in the correct order.

Select and Place:

Processes	Answer Area
data encryption	
model retraining	
model training	
data preparation	
model evaluation	



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Answer

Processes

data encryption

model retraining

Answer Area

data preparation

model training

model evaluation



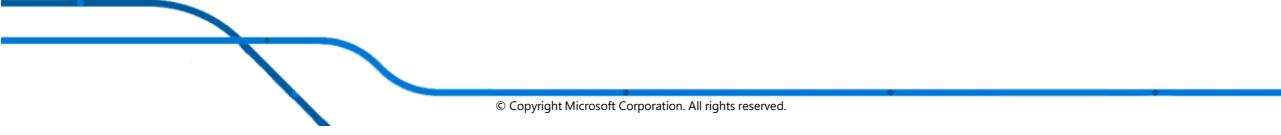
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Question

Which type of machine learning should you use to predict the number of gift cards that will be sold next month?

- A. classification
- B. regression
- C. clustering



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Answer

Which type of machine learning should you use to predict the number of gift cards that will be sold next month?

- A. classification
- B. regression**
- C. clustering



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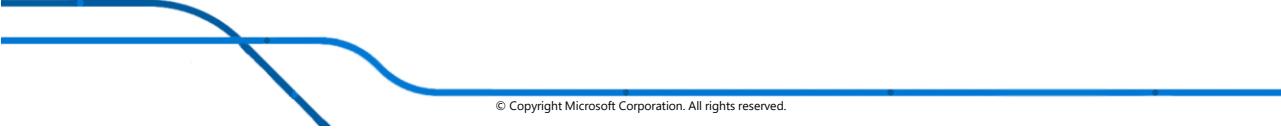
Question

You use Azure Machine Learning designer to publish an inference pipeline.

Which two parameters should you use to consume the pipeline? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. the model name
- B. the training endpoint
- C. the authentication key
- D. the REST endpoint



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Answer

You use Azure Machine Learning designer to publish an inference pipeline.

Which two parameters should you use to consume the pipeline? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. the model name
- B. the training endpoint
- C. the authentication key**
- D. the REST endpoint**



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Question

From Azure Machine Learning designer, to deploy a real-time inference pipeline as a service for others to consume, you must deploy the model to

- a local web service.
- Azure Container Instances.
- Azure Kubernetes Service (AKS).
- Azure Machine Learning compute.

47

Answer

From Azure Machine Learning designer, to deploy a real-time inference pipeline as a service for others to consume, you must deploy the model to

- a local web service.
- Azure Container Instances.
- Azure Kubernetes Service (AKS).
- Azure Machine Learning compute.

48

Question

Statements	Yes	No
Azure Machine Learning designer provides a drag-and-drop visual canvas to build, test, and deploy machine learning models.	<input type="radio"/>	<input type="radio"/>
Azure Machine Learning designer enables you to save your progress as a pipeline draft.	<input type="radio"/>	<input type="radio"/>
Azure Machine Learning designer enables you to include custom JavaScript functions.	<input type="radio"/>	<input type="radio"/>

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Answer

Statements	Yes	No
Azure Machine Learning designer provides a drag-and-drop visual canvas to build, test, and deploy machine learning models.	<input checked="" type="radio"/>	<input type="radio"/>
Azure Machine Learning designer enables you to save your progress as a pipeline draft.	<input checked="" type="radio"/>	<input type="radio"/>
Azure Machine Learning designer enables you to include custom JavaScript functions.	<input type="radio"/>	<input checked="" type="radio"/>

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Question

Azure Machine Learning designer lets you create machine learning models by

- adding and connecting modules on a visual canvas.
- automatically performing common data preparation tasks.
- automatically selecting an algorithm to build the most accurate model.
- using a code-first notebook experience.

51

Answer

Azure Machine Learning designer lets you create machine learning models by

- adding and connecting modules on a visual canvas.
- automatically performing common data preparation tasks.
- automatically selecting an algorithm to build the most accurate model.
- using a code-first notebook experience.

52

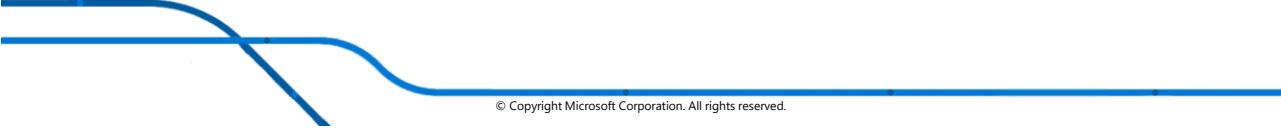
Question

You are evaluating whether to use a basic workspace or an enterprise workspace in Azure Machine Learning.

What are two tasks that require an enterprise workspace? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A.** Use a graphical user interface (GUI) to run automated machine learning experiments.
- B.** Create a compute instance to use as a workstation.
- C.** Use a graphical user interface (GUI) to define and run machine learning experiments from Azure Machine Learning designer.
- D.** Create a dataset from a comma-separated value (CSV) file.



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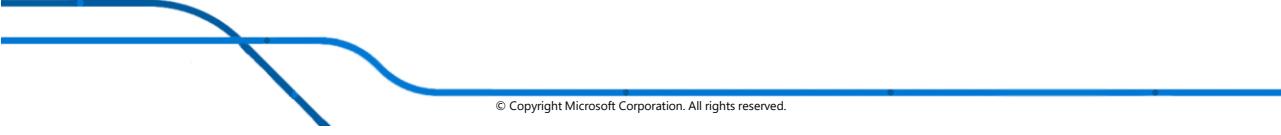
Answer

You are evaluating whether to use a basic workspace or an enterprise workspace in Azure Machine Learning.

What are two tasks that require an enterprise workspace? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

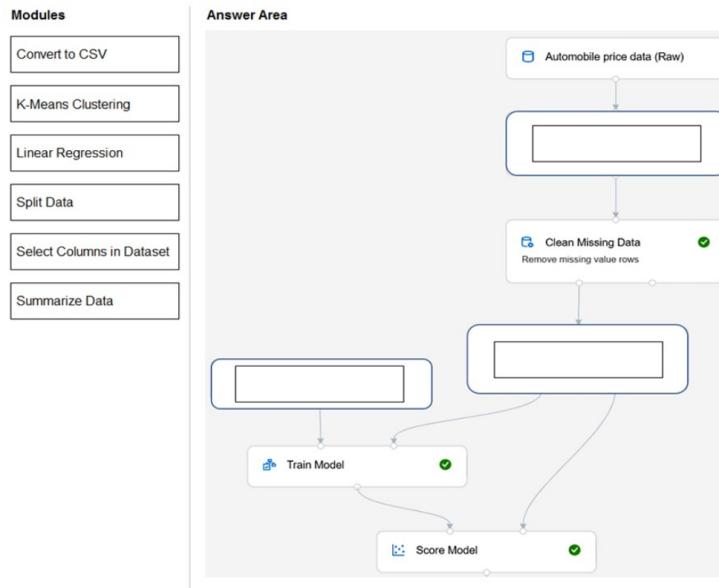
- A.** Use a graphical user interface (GUI) to run automated machine learning experiments.
- B.** Create a compute instance to use as a workstation.
- C.** Use a graphical user interface (GUI) to define and run machine learning experiments from Azure Machine Learning designer.
- D.** Create a dataset from a comma-separated value (CSV) file.



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54

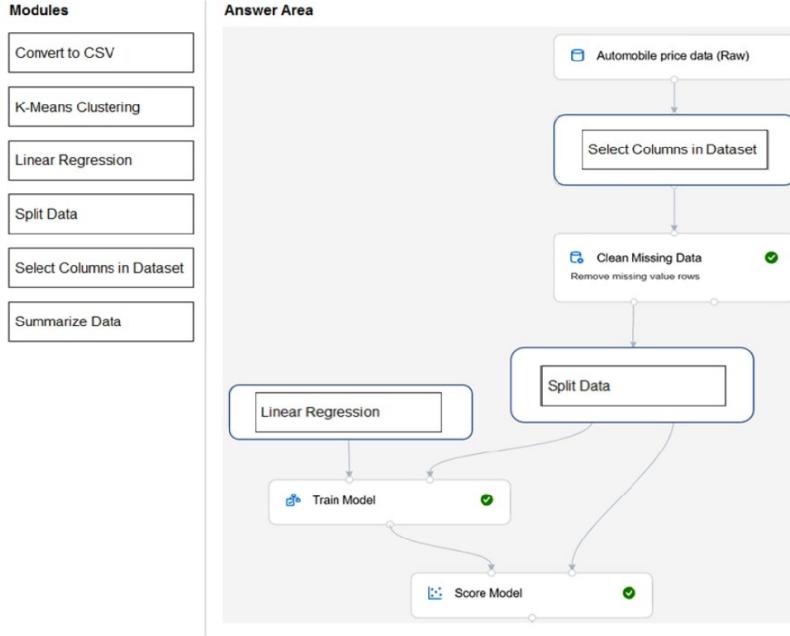
Question



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55

Answer



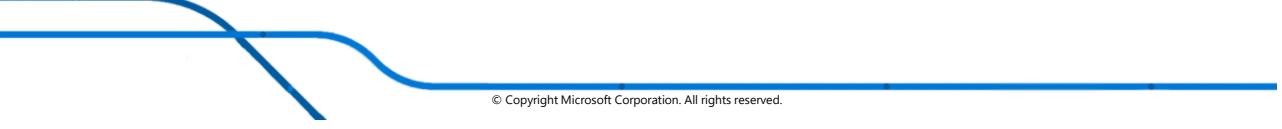
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56

Question

Which two components can you drag onto a canvas in Azure Machine Learning designer? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

- A. dataset
- B. compute
- C. pipeline
- D. module



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57

Answer

Which two components can you drag onto a canvas in Azure Machine Learning designer? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

- A. dataset**
- B. compute
- C. pipeline
- D. module**



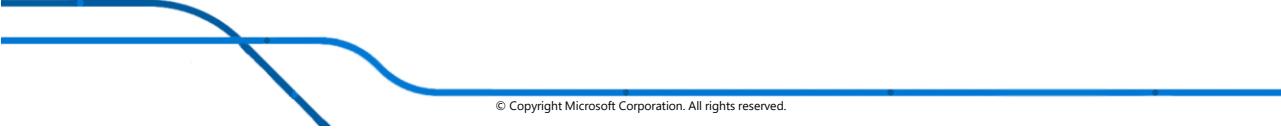
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58

Question

You need to create a training dataset and validation dataset from an existing dataset.
Which module in the Azure Machine Learning designer should you use?

- A.** Select Columns in Dataset
- B.** Add Rows
- C.** Split Data
- D.** Join Data



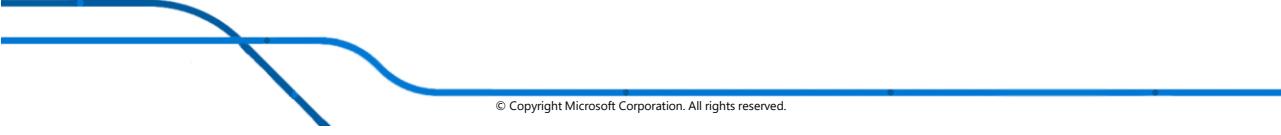
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59

Answer

You need to create a training dataset and validation dataset from an existing dataset.
Which module in the Azure Machine Learning designer should you use?

- A.** Select Columns in Dataset
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- C.** Split Data
- D.** Join Data

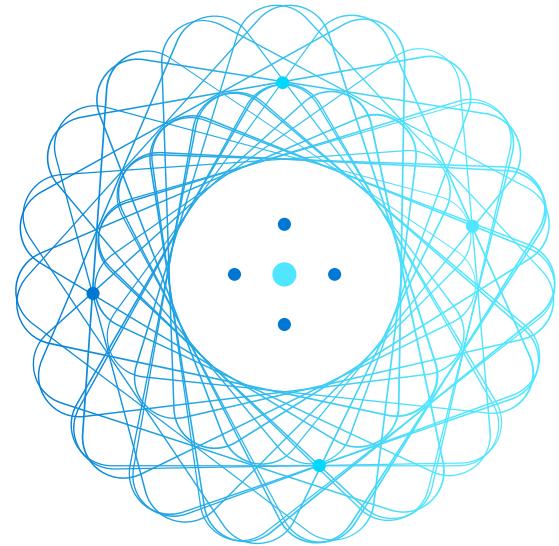


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60



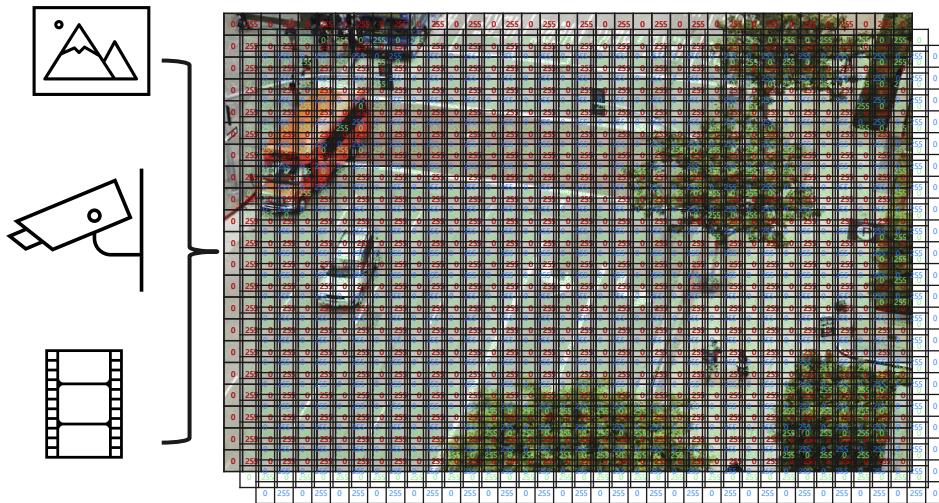
Explore Fundamentals of Computer Vision



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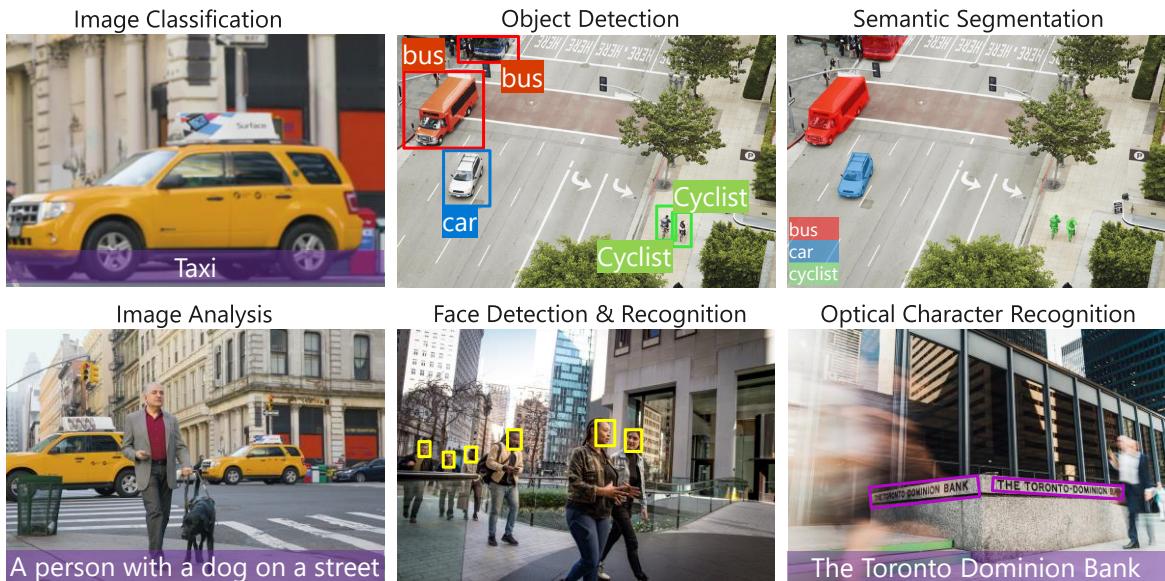
61

What is Computer Vision?



62

Applications of Computer Vision



63

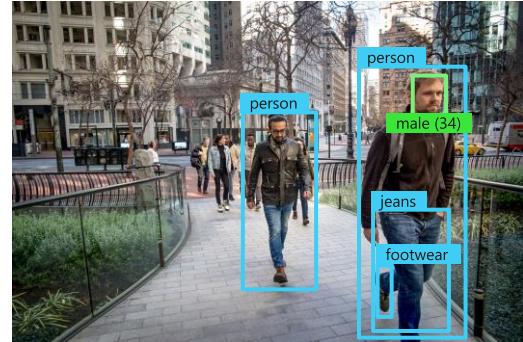
Computer Vision Services in Azure

 Computer Vision	<ul style="list-style-type: none"> Image analysis – automated captioning and tagging Common object detection Face detection Smart cropping Optical character recognition
Custom Vision	<ul style="list-style-type: none"> Custom image classification Custom object detection
Face	<ul style="list-style-type: none"> Face detection and analysis
Form Recognizer	<ul style="list-style-type: none"> Data extraction from forms, invoices, and other documents

64

Image Analysis with the *Computer Vision Service*

- Pre-trained computer vision model
- Object detection for over 10,000 predefined classes
- Image description and tag generation
- Face detection and analysis
- Content moderation
- Text detection and OCR



Caption: a group of people walking on a sidewalk

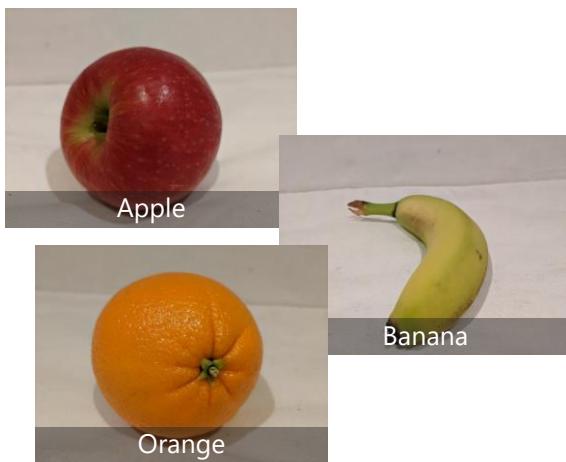
Tags: building, jeans, street, outdoor, jacket, city, person

Ratings: Adult: False, Racy: False, Gore: False

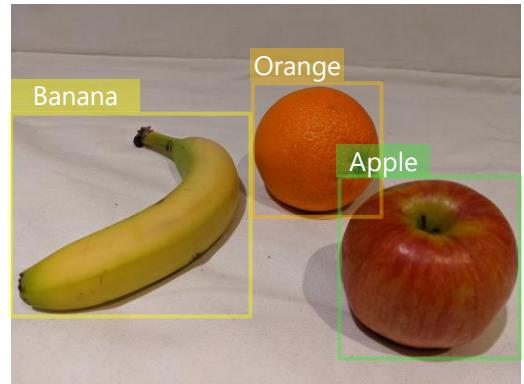
65

Training Models with the *Custom Vision Service*

Image Classification



Object Detection



66

Detecting Faces with the *Face* Service

Anyone can use the Face service to detect:

- Blur
- Exposure
- Glasses
- Head pose
- Noise
- Occlusion

Only Managed Microsoft customers
can access facial recognition capabilities:

- Similarity matching
- Identity verification

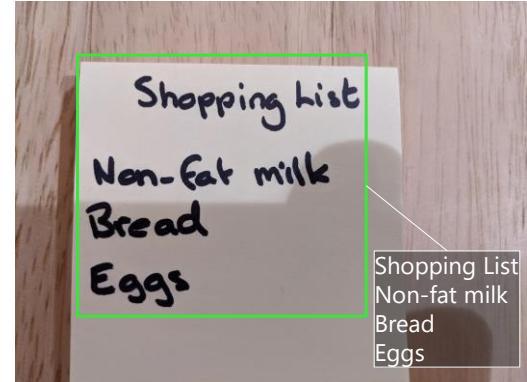
*To support Microsoft's Responsible AI Principles, Facial Recognition is
under a Limited Access policy.



67

Reading Text with the *Computer Vision* Service

- Detect the location of text:
 - Printed
 - Handwritten
- Options for quick text extraction from images, or asynchronous analysis of larger scanned documents



68

Analyzing Forms with the *Form Recognizer Service*

- Extract information from scanned forms in image or PDF format
 - Use the pre-trained models for common document types
 - Train a custom model using your own forms
- Models perform *semantic recognition* of form fields – not just text extraction

Northwind Traders		
123 Main Street		
555-123-4567		
2/17/2020 13:07		
1	Apple	\$0.90
2	Orange	\$1.60
	Sub-Total	\$2.50
	Tax	\$0.25
	Total	\$2.75

69

Question

Which service should you use to extract text, key/value pairs, and table data automatically from scanned documents?

- A. Form Recognizer
- B. Text Analytics
- C. Language Understanding
- D. Custom Vision



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70

Answer

Which service should you use to extract text, key/value pairs, and table data automatically from scanned documents?

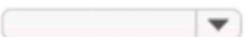
- A. Form Recognizer**
- B. Text Analytics
- C. Language Understanding
- D. Custom Vision

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71

Question

Answer Area

The ability to extract subtotals and totals from a receipt is a capability of the  service.

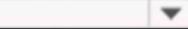
Custom Vision
Form Recognizer
Ink Recognizer
Text Analytics

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72

Answer

Answer Area

The ability to extract subtotals and totals from a receipt is a capability of the  service.

Custom Vision
Form Recognizer
Ink Recognizer
Text Analytics

73

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Question

You are building a tool that will process images from retail stores and identify the products of competitors. The solution will use a custom model.

Which Azure Cognitive Services service should you use?

- A. Custom Vision
- B. Form Recognizer
- C. Face
- D. Computer Vision

74

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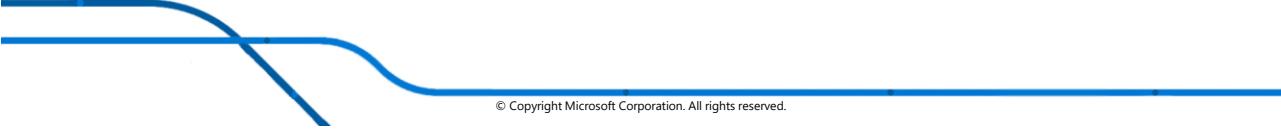
Answer

You are building a tool that will process images from retail stores and identify the products of competitors.

The solution will use a custom model.

Which Azure Cognitive Services service should you use?

- A. Custom Vision**
- B. Form Recognizer
- C. Face
- D. Computer Vision



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75

Question

In which two scenarios can you use the Form Recognizer service? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Extract the invoice number from an invoice.**
- B. Translate a form from French to English.**
- C. Find image of product in a catalog.**
- D. Identify the retailer from a receipt.**



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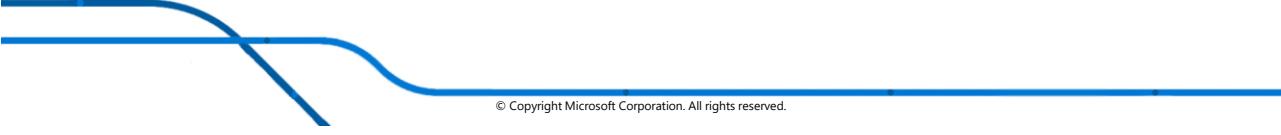
76

Answer

In which two scenarios can you use the Form Recognizer service? Each correct answer presents a complete solution.

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- A. Extract the invoice number from an invoice.**
- B. Translate a form from French to English.**
- C. Find image of product in a catalog.**
- D. Identify the retailer from a receipt.**



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77

Question

You need to develop a mobile app for employees to scan and store their expenses while travelling.

Which type of computer vision should you use?

- A. semantic segmentation**
- B. image classification**
- C. object detection**
- D. optical character recognition (OCR)**



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78

Answer

You need to develop a mobile app for employees to scan and store their expenses while travelling.
Which type of computer vision should you use?

- A. semantic segmentation
- B. image classification
- C. object detection
- D. optical character recognition (OCR)



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79

Question

You are processing photos of runners in a race.

You need to read the numbers on the runners' shirts to identify the runners in the photos.

Which type of computer vision should you use?

- A. facial recognition
- B. optical character recognition (OCR)
- C. semantic segmentation
- D. object detection



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80

Answer

You are processing photos of runners in a race.

You need to read the numbers on the runners' shirts to identify the runners in the photos.

Which type of computer vision should you use?

- A. facial recognition
- B. optical character recognition (OCR)**
- C. semantic segmentation
- D. object detection

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81

Question

Workloads Types

Facial recognition
Image classification
Object detection
Optical character recognition (OCR)

Answer Area

Workload Type	Identify celebrities in images.
Workload Type	Extract movie title names from movie poster images.
Workload Type	Locate vehicles in images.

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Answer

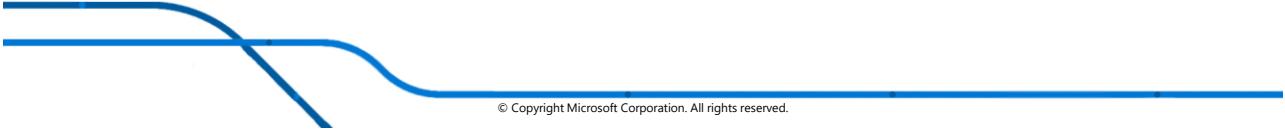
Workloads Types

- Facial recognition
- Image classification
- Object detection
- Optical character recognition (OCR)

Answer Area

- | | |
|-------------------------------------|---|
| Facial recognition | Identify celebrities in images. |
| Optical character recognition (OCR) | Extract movie title names from movie poster images. |
| Object detection | Locate vehicles in images. |

83



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Question

You need to determine the location of cars in an image so that you can estimate the distance between the cars. Which type of computer vision should you use?

- A. optical character recognition (OCR)
- B. object detection
- C. image classification
- D. face detection



84

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Answer

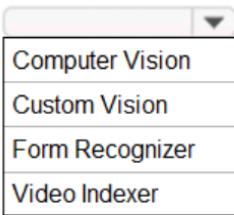
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- C. image classification
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85

Question

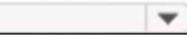
You can use the  service to train an object detection model by using your own images.

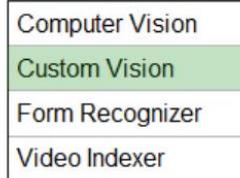
Computer Vision
Custom Vision
Form Recognizer
Video Indexer

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86

Answer

You can use the  service to train an object detection model by using your own images.

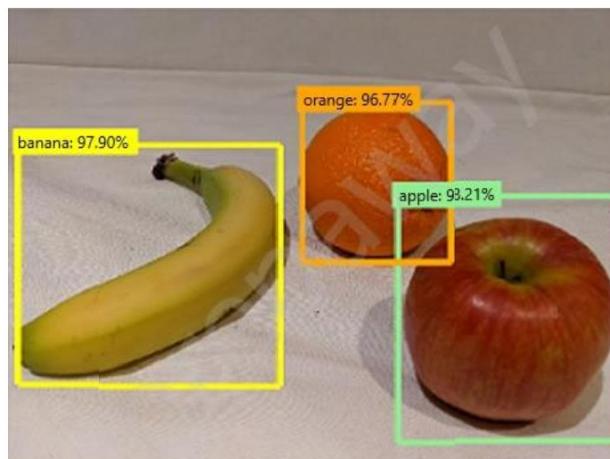


87

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Question

You send an image to a Computer Vision API and receive back the annotated image shown in the exhibit.



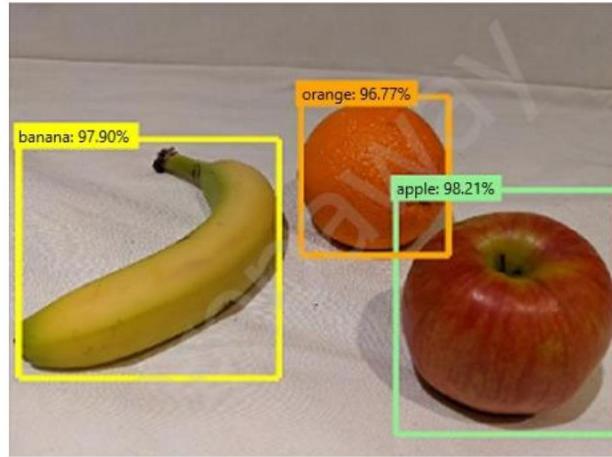
Which type of computer vision was used?

- A. object detection
- B. semantic segmentation
- C. optical character recognition (OCR)
- D. image classification

88

You send an image to a Computer Vision API and receive back the annotated image shown in the exhibit.

Answer



Which type of computer vision was used?

- A. object detection
- B. semantic segmentation
- C. optical character recognition (OCR)
- D. image classification

89

Question

You need to build an image tagging solution for social media that tags images of your friends automatically. Which Azure Cognitive Services service should you use?

- A. Face
- B. Form Recognizer
- C. Text Analytics
- D. Computer Vision

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90

Answer

You need to build an image tagging solution for social media that tags images of your friends automatically. Which Azure Cognitive Services service should you use?

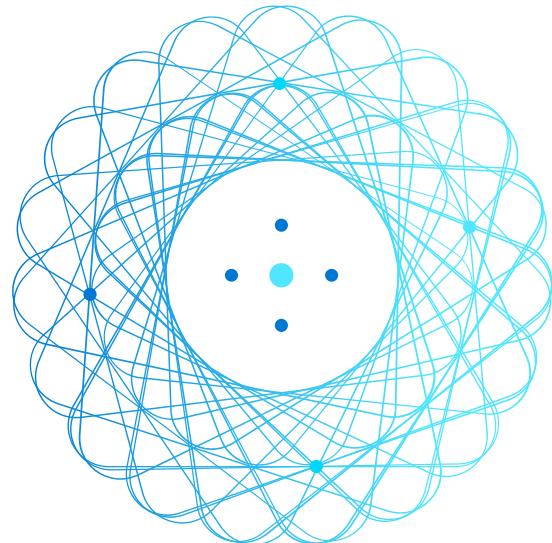
- A. Face
- B. Form Recognizer
- C. Text Analytics
- D. Computer Vision

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91



Explore Fundamentals of Natural Language Processing



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92

What is Natural Language Processing?



Text analysis and entity recognition

Sentiment analysis

Speech recognition and synthesis

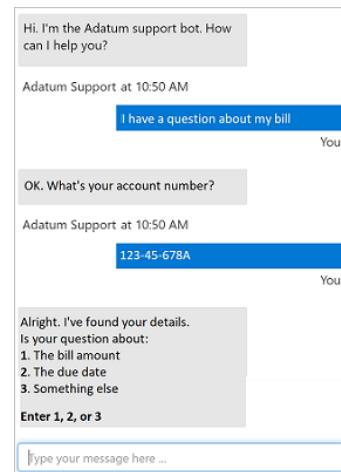
Machine translation

Semantic language modeling

93

What is Conversational AI?

- A solution that enables a dialog between an AI agent and a human
- Generically, conversational AI agents are known as *bots*
- Bots can engage over multiple *channels*:
 - Web chat interfaces
 - Email
 - Social media platforms
 - Voice



94

Natural Language Processing and Conversational AI in Azure

Language	<ul style="list-style-type: none"> • Language detection • Key phrase extraction • Entity detection • Sentiment analysis • Question answering • Conversational language understanding
Speech	<ul style="list-style-type: none"> • Text to speech • Speech to text • Speech translation
Translator	<ul style="list-style-type: none"> • Text translation
Azure Bot Service	<ul style="list-style-type: none"> • Platform for conversational AI

95

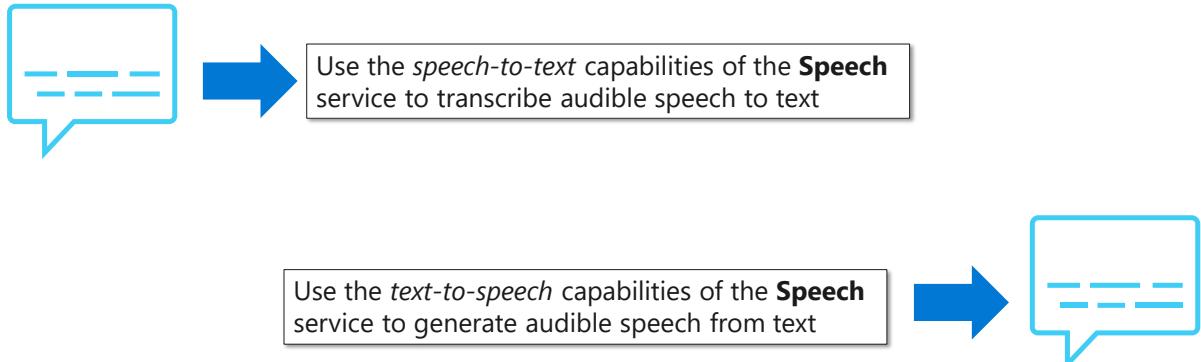
Analyzing Text

I had a wonderful vacation in France.

- **Predominant Language:** English
- **Sentiment:** 88% (positive)
- **Key Phrases:** "wonderful vacation"
- **Entities:** France

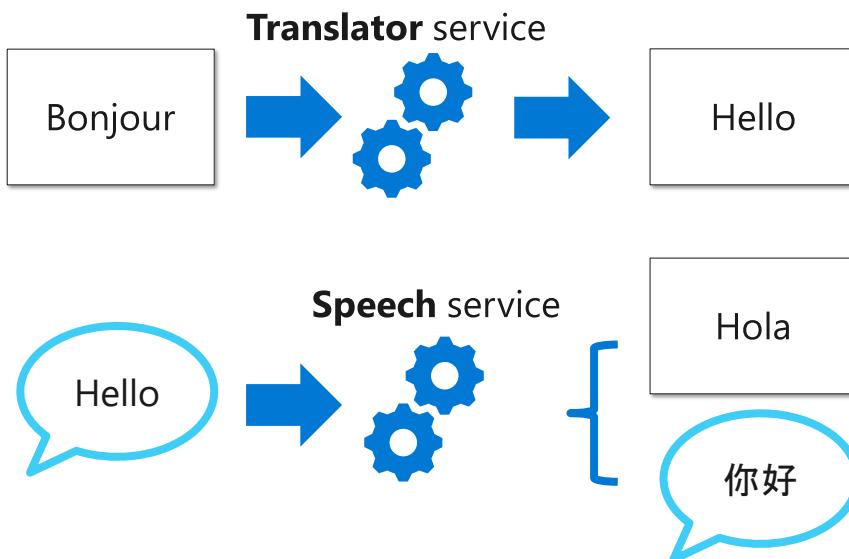
96

Speech Recognition and Synthesis



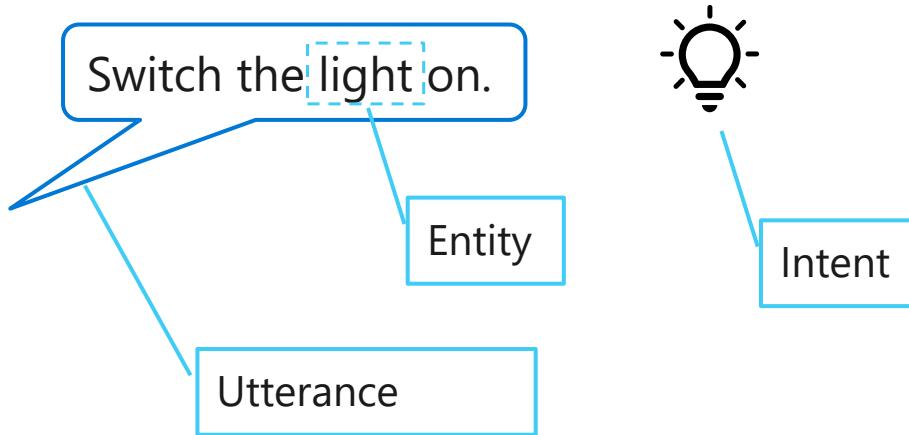
97

Translation



98

Conversational Language Understanding



99

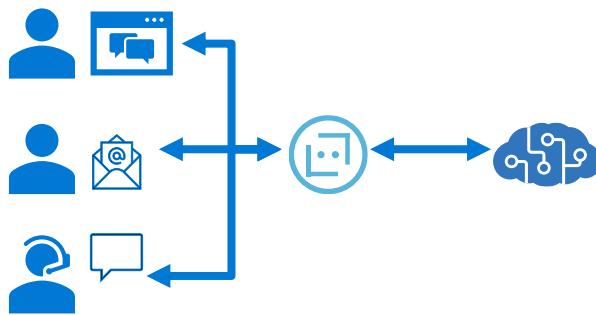
Question Answering

- Define a *knowledge base* of question and answer pairs:
 - By entering questions and answers
 - From an existing FAQ document
 - By using built-in *chit-chat*
- Consume the knowledge base from client apps, including bots



100

Azure Bot Service



- Cloud-based platform for developing and managing bots
- Integration with **Language** and other services
- Connectivity through multiple channels

101

Question

While presenting at a conference, your session is transcribed into subtitles for the audience. This is an example of

sentiment analysis.
speech recognition.
speech synthesis.
translation.

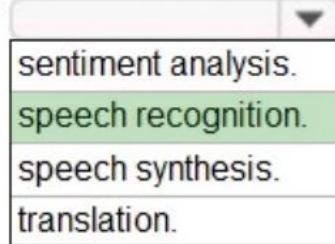


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102

Answer

While presenting at a conference, your session is transcribed into subtitles for the audience. This is an example of



103

Question

You plan to develop a bot that will enable users to query a knowledge base by using natural language processing. Which two services should you include in the solution? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A.** QnA Maker
- B.** Azure Bot Service
- C.** Form Recognizer
- D.** Anomaly Detector

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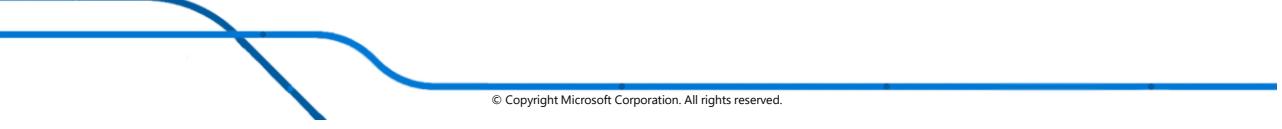
104

Answer

You plan to develop a bot that will enable users to query a knowledge base by using natural language processing. Which two services should you include in the solution? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. QnA Maker**
- B. Azure Bot Service**
- C. Form Recognizer
- D. Anomaly Detector



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105

Question

You need to develop a chatbot for a website. The chatbot must answer users

- A product troubleshooting guide in a Microsoft Word document
- A frequently asked questions (FAQ) list on a webpage

Which service should you use to process the documents?

questions based on the information in the following documents:

- A. Azure Bot Service
- B. Language Understanding
- C. Text Analytics
- D. QnA Maker



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Answer

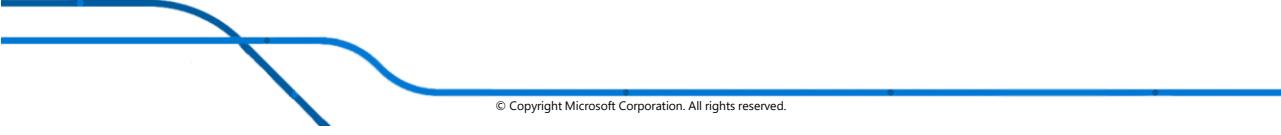
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- A product troubleshooting guide in a Microsoft Word document
- A frequently asked questions (FAQ) list on a webpage

Which service should you use to process the documents?

questions based on the information in the following documents:

- A. Azure Bot Service**
- B. Language Understanding**
- C. Text Analytics**
- D. QnA Maker**



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107

Question

You are developing a conversational AI solution that will communicate with users through multiple channels including email, Microsoft Teams, and webchat. Which service should you use?

- A. Text Analytics**
- B. Azure Bot Service**
- C. Translator**
- D. Form Recognizer**



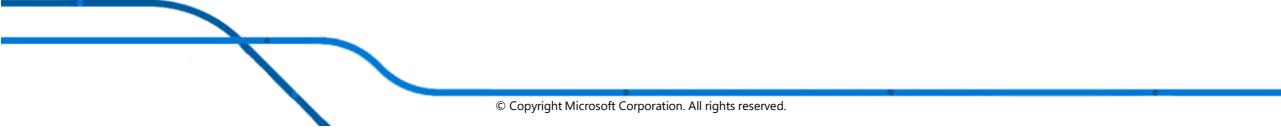
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108

Answer

You are developing a conversational AI solution that will communicate with users through multiple channels including email, Microsoft Teams, and webchat. Which service should you use?

- A. Text Analytics
- B. Azure Bot Service**
- C. Translator
- D. Form Recognizer



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Question

You have a frequently asked questions (FAQ) PDF file.
You need to create a conversational support system based on the FAQ.
Which service should you use?

- A. QnA Maker
- B. Text Analytics
- C. Computer Vision
- D. Language Understanding (LUIS)



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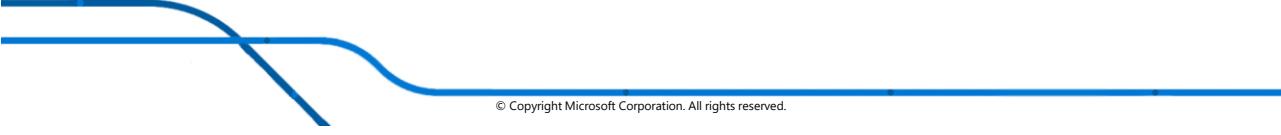
Answer

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- B. Text Analytics
- C. Computer Vision
- D. Language Understanding (LUIS)

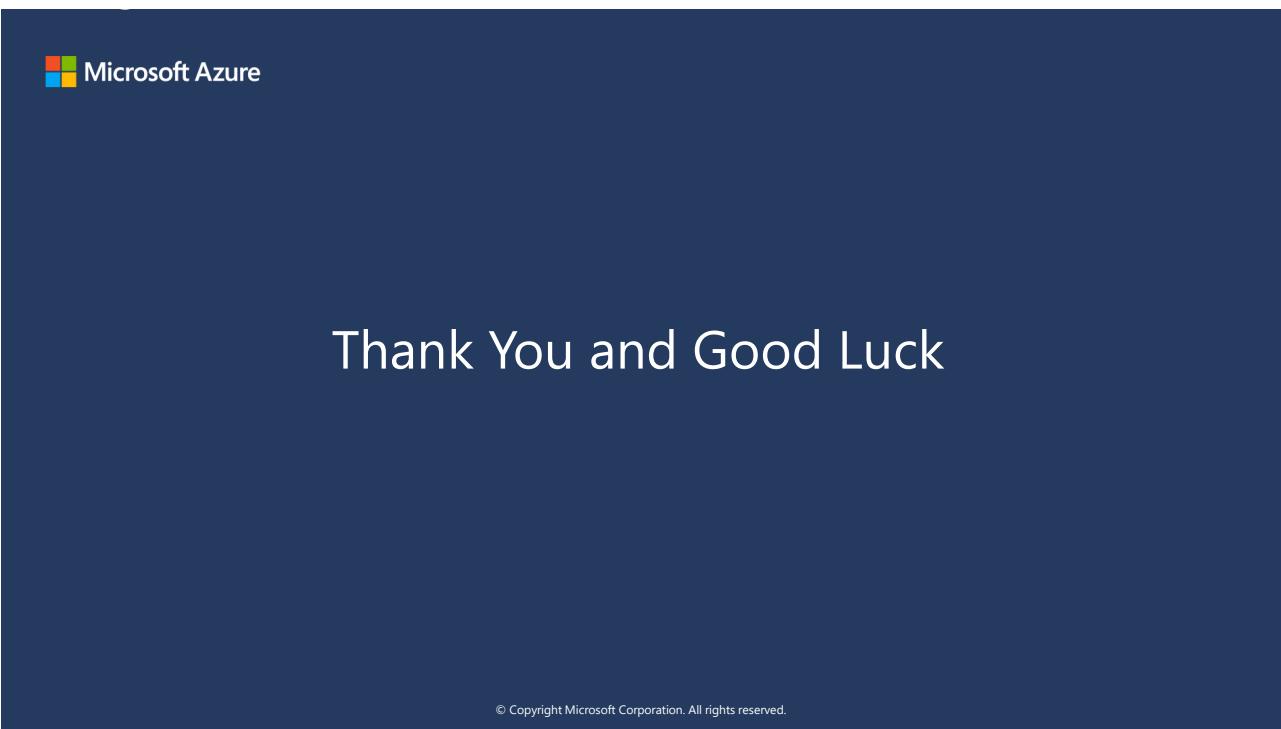


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111



Thank You and Good Luck



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