# Module 1 Quiz

Quiz, 10 questions

# **X** Try again once you are ready.

Required to pass: 80% or higher

You can retake this quiz up to 3 times every 8 hours.

Back to Week 1

Retake

0.75 / 1 points
1.
Select all correct answers:
Artificial Intelligence (AI) deals with machines that achieve a human-level performance at specific tasks such as face or speech recognition, machine translation, credit approvals, etc.
Correct
This is a correct answer.
Data Science uses statistics and ML to monetize information in data.
Correct
This is a correct answer.
Machine Learning (ML) is a sub-field of Al that teaches computers to perform tasks from experience.

Machine Intelligence aims at a symbiosis of Al and human

This is a correct answer.

intelligence.

Correct

## This should not be selected

 $Module\ 1\ Quiz^{This}\ \text{is an incorrect answer. Please review the lecture on artificial intelligence and machine learning, part I.}$ 

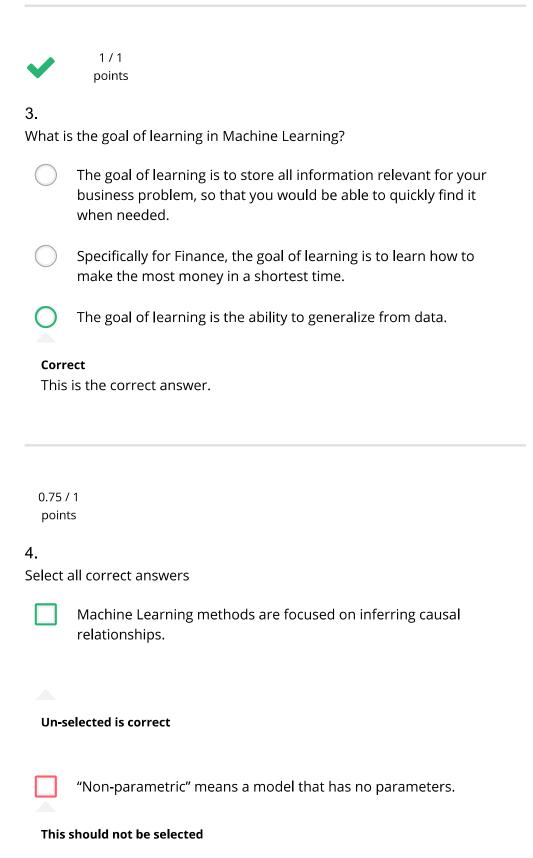
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0.80 / point	
2.	
	all correct answers:
	A rational AI agent should select actions that are expected to maximize its performance measure.
Corre	ect
This	is a correct answer.
	Al studies intelligent agents that perceive their environment and perform actions to solve tasks that involve mimicking cognitive functions of humans.
Corre	
Inis	is a correct answer.
	A rational AI agent should not use any built-in knowledge about its environment.
Un-s	elected is correct
	A rational AI agent should select a performance measure that allows it to compute optimal actions in a most efficient way.
This	should not be selected
This	is an incorrect answer. Please review the lecture on artificial ligence and machine learning, part II.
	Al agents can perceive a physical environment in real time via sensors, or by reading digital data collected from an environment.

#### Correct

# $Module \ 1 \ Quiz^{This \ is \ a \ correct \ answer.}$

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This is an incorrect answer. Please review video lectures of this week.

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Quiz, 10 questions	Scalability of Machine Learning methods is often a major concern in industrial applications.  Correct This is a correct answer.		
	<ul> <li>Machine Learning deals with both probabilistic and non-probabilistic methods.</li> <li>Correct</li> <li>This is a correct answer.</li> </ul>		
	0.33 / 1 points 5.		
	Choose all correct statements:		
	Reinforcement Learning is in a sense an intermediate case between Supervised and Unsupervised Learning, as some feedback about right actions is available, but it is incomplete.		
	Correct		
	This is a correct answer.		
	Most of available data for Machine Learning is unsupervised data.		
	This should be selected		
	Reinforcement Learning forces Unsupervised Learning algorithms to behave in a similar way to Supervised Learning algorithms using the latest groundbreaking research in Deep Learning.		

This should not be selected

This is an incorrect answer. Please review the lecture on Machine Learning as a Foundation of Artificial Intelligence, Part II.

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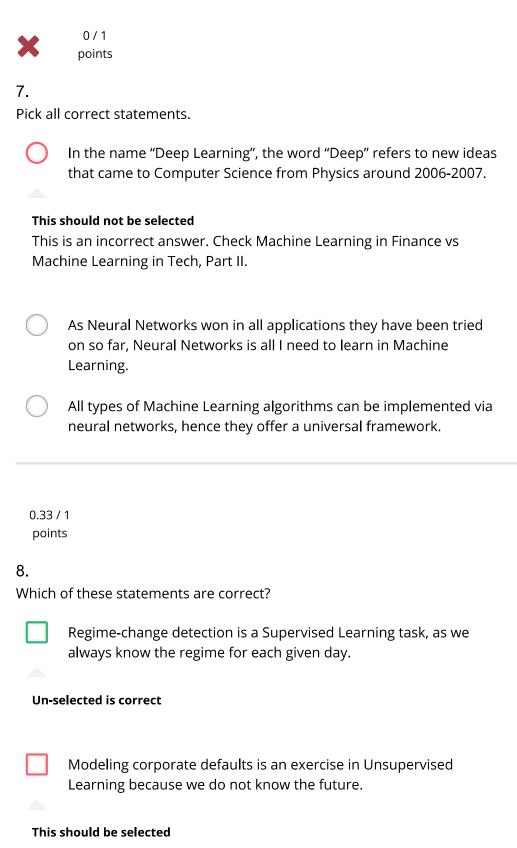
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0.50 /	<i>'</i> 1
point	
6. Pick all	correct statements:
	The difference between (direct) Reinforcement Learning and Inverse Reinforcement Learning is that in the latter case, there is no information about rewards received by the agent.
This	should be selected
	Both clustering and classification construct a map of a multi- dimensional input vector onto a discrete set of labels. The only difference is that for classification, there are class labels that make the problem an example of Supervised Learning, while clustering is an example of Unsupervised Learning.
<b>Corr</b> Corr	
	Modern ML packages unify Supervised and Unsupervised algorithms using generic APIs: if you replace all labels in a dataset by NaNs (Not a Number), the algorithm will assume that your problem is an Unsupervised Learning problem.
This	should not be selected is an incorrect answer. Please review the lecture on Machine ning as a Foundation of Artificial Intelligence, Part III.
	Clustering could also be thought as a special type of Representation Learning when the output space is a discrete set.
Corr	ect

Correct!

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Reinforcement Learning is a suitable framework for portfolio optimization, even though it can also be done with Supervised Learning using some pre-specified models of the world.

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This should be selected

<b>~</b>	1/1 points		
9. Why ca	an perception tasks in Finance involve Reinforcement Learning?		
	Simply by induction: As Reinforcement Learning is a sort of Deep Learning, and Deep Learning always beats any other ML algorithms, it follows that all perception tasks in Finance should better start with Reinforcement Learning.		
	All this is a way too abstract stuff for me. Can we move on to TensorFlow demos please?		
0	In Finance, expectations regarding the future are sometimes embedded in perception of today's environment. If this future is influenced by actions of rational agents, Reinforcement Learning might be an appropriate framework.		
<b>Corr</b> Corr			
0.50 / point			
	e all correct answers: What are the main differences between Machineng in Finance and Machine Learning in Tech?		
	Financial data is typically non-stationary.		
This should be selected			

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There are no differences, really. The Gradient Boosting algorithm always works. Now, can you show us some TensorFlow demos, please?

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**Un-selected is correct** 

The noise-to-signal ratio is typically higher for Financial data than for data used in Tech applications.

### Correct

This is a correct answer.

In Finance, relevant data is often of a medium-to-large size.

This should be selected





