≡ Back Clustering Graded Quiz • 30 min

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A English	Duo	Feb 25, 11:59 PM CET
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9	E Con gratulations! You	passed!	
	Grade received 80% Latest Su	ubmission Grade 80% To pass 80% or higher	
	Go to next item	Quiz Clustering	
1.	Which of these best describes unsuper	Submit your assignment viagde PRO 1259 PM CET	1 / 1 point
		nds patterns in data using only labels (y) but without any inputs (x) . Try again nds patterns using labeled data (x, y)	
	-	nds patterns using unlabeled data (x). nds patterns without using a cost function. To Pass 80% or higher	
	_	beled data. The training examples do not have targets or labels "y". Recall the T-shirt example. The data was height and weight but no target Your grade 80%	
2.		View Feedback	0 / 1 point
	Which of these statements are true abo	with Keep your nighest score ut K. Meep your night state apply.	
	☐ If each example x is a vector of 5 nu	umbers, then each cluster centroid μ_k is also going to be a vector of 5 numbers.	
	☐ The number of cluster assignment	variables $c^{(i)}$ is equal to the number of training examples. Like The port an issue	
	\square The number of cluster centroids μ_i	$_{\hat{k}}$ is equal to the number of examples.	
	lacksquare If you are running K-means with K	$\mathcal{C}=3$ clusters, then each $c^{(i)}$ should be 1, 2, or 3.	
	\odot Correct $c^{(i)}$ describes which centroid exa	ample (i) is assigned to. If $K=3$, then $c^{(i)}$ would be one of 1,2 or 3 assuming counting starts at 1.	
	You didn't select all the correct answer	s	
3.			1/1 point
	You run K-means 100 times with differe	ent initializations. How should you pick from the 100 resulting solutions?	
	Pick the last one (i.e., the 100th ran	ndom initialization) because K-means always improves over time	
	Average all 100 solutions together.		
	Pick the one with the lowest cost J		
	Pick randomly that was the point	t of random initialization.	
	Correct K-means can arrive at different so	olutions depending on initialization. After running repeated trials, choose the solution with the lowest cost.	
4.	You run K-means and compute the valu	we of the cost function $J(c^{(1)},\dots,c^{(m)},\mu_1,\dots,\mu_K)$ after each iteration. Which of these statements should be true?	1/1 point
	O The cost can be greater or smaller	than the cost in the previous iteration, but it decreases in the long run.	
	The cost will either decrease or starting.	y the same after each iteration	
	There is no cost function for the K-	means algorithm.	
	Because K-means tries to maximize	e cost, the cost is always greater than or equal to the cost in the previous iteration.	
	✓ Correct ✓ The cost never increases. K-mean	ns always converges.	
5.	In K-means, the elbow method is a met	shod to	1/1 point
	O Choose the best random initialization	ion	
	Choose the number of clusters K		
	O Choose the maximum number of e	examples for each cluster	
	Choose the best number of sample	es in the dataset	
	 Correct The elbow method plots a graph may not exist or be significant in 	between the number of clusters K and the cost function. The 'bend' in the cost curve can suggest a natural value for K. Note that this feature some data sets.	(2)

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