

ACCA6011 Search and ML Clustering

by Rebecca Ryall

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ACCA6011

Search and ML Clustering

By

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[1], [2], [3], [4], [5], [6], [7],

Task 2

Task 3

Number	Data Points			Centroids	x	y			number	1	2	clusters	
N	x	y		1	3.04	2.58			1	5.333333	2.5	2	
1	5	5							2	3.333333	7	1	
2	0	5		Centroids	x	y			3	0.666667	3	1	
3	2	3		2	2.68	0.29			4	1.666667	3.5	1	
4	2	2							5	5.666667	2	2	
5	5	1							6	1.666667	2	1	
6	3	3							7	1.333333	5	1	
7	1	4							8	3.666667	0.5	2	
8	5	3			x	y			9	1.666667	4.5	1	
9	1	2		Center 1	1.5	3.166667			10	3.666667	1.5	2	
10	4	2		Center 2	4.75	2.75							
				k = 2									
cluster 1	2,3,4,6,7,9												
cluster 2	1,5,8,10												
1st					2nd					3rd			
Number	1	2	Clusters		Number	1	2	Clusters		Number	1	2	Clusters
1	4.38	7.03	1		1	4.222222	4	2		1	5.333333	2.5	2
2	5.46	7.39	1		2	4.333333	9	1		2	3.333333	7	1
3	1.46	3.39	1		3	0.777778	5	1		3	0.666667	3	1
4	1.62	2.39	1		4	1.777778	4	1		4	1.666667	3.5	1
5	3.54	3.03	2		5	4.666667	0	2		5	5.666667	2	2
6	0.46	3.03	1		6	0.666667	4	1		6	1.666667	2	1
7	3.46	5.39	1		7	2.333333	7	1		7	1.333333	5	1
8	2.38	5.03	1		8	2.666667	2	2		8	3.666667	0.5	2
9	2.62	3.39	1		9	2.777778	5	1		9	1.666667	4.5	1
10	1.54	3.03	1		10	2.666667	2	2		10	3.666667	1.5	

FIGURE 1 K-MEAN CLUSTERING GROUPS

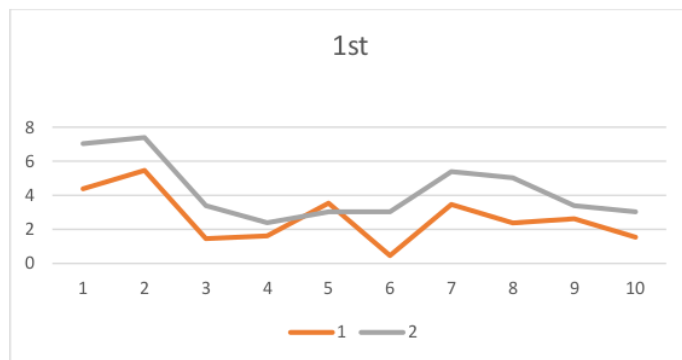


FIGURE 2 1ST TABLE

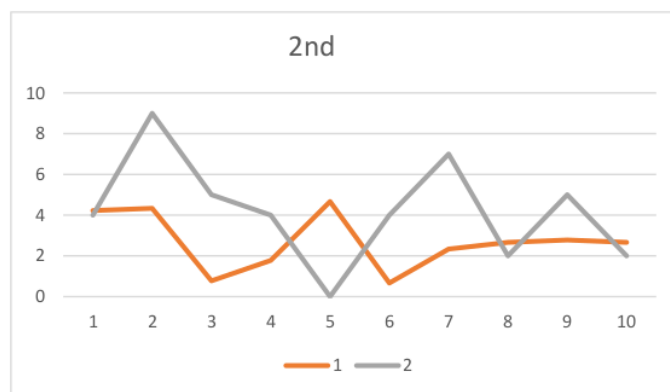


FIGURE 3 2ND TABLE

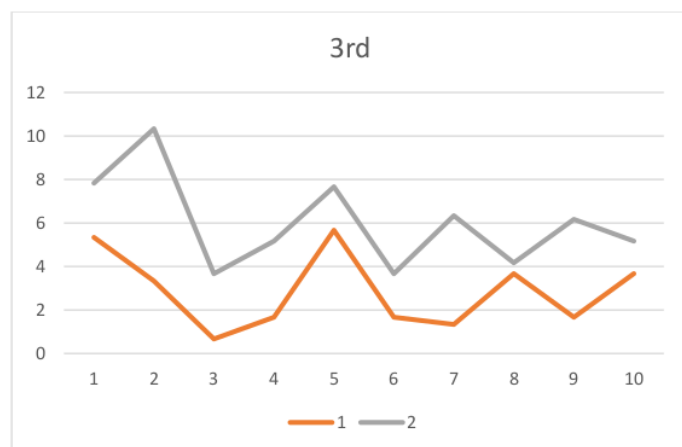


FIGURE 4 3RD TABLE

References

- [1] I. MILLINGTON, 'AI FOR GAMES.', 2020.
- [2] I. MILLington, 'AI for Games, Third Edition: Amazon.co.uk: Millington, Ian: 9780367670566: Books'. <https://www.amazon.co.uk/AI-Games-Third-Ian-Millington/dp/0367670569> (accessed Apr. 06, 2022).
- [3] J. Buck, 'Mazes for Programmers Code Your Own Twisty Little Passages'. <http://mazesforprogrammers.com/> (accessed Oct. 14, 2021).
- [4] 'Russell & Norvig, Artificial Intelligence: A Modern Approach: International Edition, 3rd Edition | Pearson'. <https://www.pearson.com/uk/educators/higher-education-educators/program/Russell-Artificial-Intelligence-A-Modern-Approach-International-Edition-3rd-Edition/PGM930079.html> (accessed Apr. 12, 2022).
- [5] A. Géron, 'Hands-on Machine Learning with Scikit-Learn, Keras, and TensorFlow (2019, O'reilly)', *Hands-On Mach. Learn. with R*, p. 510, 2017.
- [6] 'Downloads - My Visual Studio'. <https://my.visualstudio.com/Downloads?q=Visual Studio 2019> (accessed Dec. 16, 2021).
- [7] 'YouTube'. <https://www.youtube.com/> (accessed Nov. 24, 2021).

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GRADEMARK REPORT

FINAL GRADE

GENERAL COMMENTS

18/100

Instructor

Several tasks are missing here unfortunately. You present a spreadsheet which, upon close examination, looks like the calculations for k-means first iteration. The starting points though don't match those allocated to you, and you don't describe how you calculated the distances from the initial cluster centres to each point.

References included.

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GRADING FORM: SMU GENERIC_GJ

REBECCA RYALL

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RESEARCH-INFORMED LITERATURE

KNOWLEDGE AND UNDERSTANDING

ANALYSIS

PRACTICAL APPLICATION AND DEP.

SKILLS FOR PROFESSIONAL PRAC.