











From feedback session pseudo document is generated .Pseudo documents consists of snippets and titles. Then clustering algorithm will be applied on to this pseudo document. It forms the list of keywords for each cluster according to relevance of keywords. Figure 9.3 shows list of keywords for particular cluster. For example ,for query id 318 it shows 10 keywords . Clustering algorithms will be applied on to these keywords.

The performance of the algorithm is checked by calculating average precision for both algorithms. Classified Average Precision (CAP), Voted Average Precision (VAP) ,Risk are calculated for k-means algorithm and bisecting k-means algorithm. Figure 9.4 shows the values of CAP, VAP and Risk.

	id	qid	VAP	CA
▶	33	318	1	1
	34	318	1	1
	35	319	0.333333333333...	0.3
	36	319	0.555555555555...	0.418276641363...
	39	321	0.16598639455...	0.10217661117...
	40	321	1	0.6
	41	322	0.555555555555...	0.5
	42	322	1	1
	43	323	0.40432098765...	0.4
	44	323	0.55	0.3
	47	325	1	0.6
	48	325	1	0.6
	49	328	0.208333333333...	0.2
	50	328	0.25	0.2
	51	329	0.28	0.2
	52	329	0	0
	53	330	0.479166666666...	0.2
	54	330	0	0

Figure 9.4: CAP, VAP, Risk for k-means and bisecting k-means algorithm

The performance of the system is shown by graphs. Figure 9.5 shows the graph for CAP against query id. And figure 9.6 shows graph for risk against VAP.

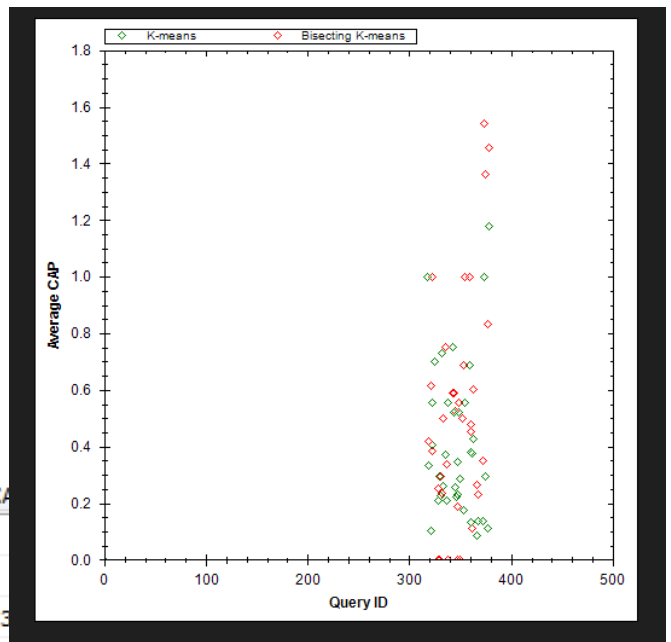


Figure 9.5: Graph for CAP against Query ID

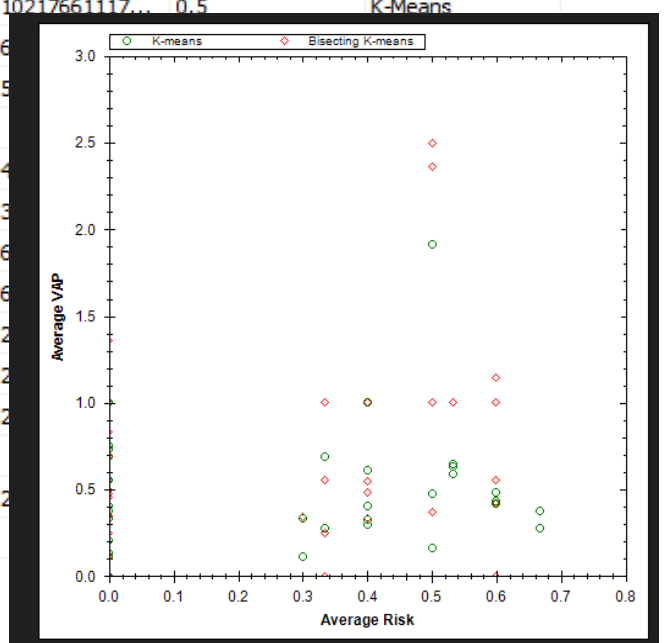


Figure 9.6: Graph for Risk and VAP

## 8. Conclusion

The proposed system can be used to improve discovery of user search goals for a similar query by using bisecting algorithm for clustering user feedback sessions represented by pseudo-documents. By using proposed system, the inferred user search goals can be used to restructure web search results. So, users can find exact information quickly and very efficiently. The discovered clusters of query can also be used to assist users in web search.

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## 10. Other Recommendations

Equalize the length of your columns on the last page. If you are using *Word*, proceed as follows: Insert/Break/Continuous.

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