EXPERIMENT NO: 08 Aim: Social network analysis (Girvan Newman Algo System software requirements: Python, Windows Theory: Social Network analysis: Networks hold a significance in every domain of the increase in social networks. Community structure an essential part of such complex networks and the the extraction of communities for atudying the beha and trends of individuals forming communities as it use today in the field of data sciences. The intraction requires smart and efficient technique to immensely growing networks. Communities of relicion have played a vital role in detectin. Clusters by different implementation techniques.	
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The Girvan Newman technique for the detection and analysis of community structure depends upon the iterative elimination of edges of edges with the highest number of shortest paths that pass through them.

By getting rid of the edges, the network breaks down into smaller network, i.e, communities.

The algorithm, as the name suggest, is introduced by Girvan and Newman. The idla was to find which edge in a network occur most frequently between other pairs of nodes by finding edges betweenness. The edges joining communities are then hyperted to have high edge betweenles.

The underlying community structure of the network will be

	New Horizon Institute of Technology & Management Page No.:
	much fine grained once we eliminate edges with high edge betweeness
*	Algorithm:
1.	Calculate edge betweeness to a many edge to the accept
2	Calculate edge betweeness for every edge in the graph. Remove the edge with highest edge betweenness.
2.	Calculate and pativaces and low in the
14	Para la de la company de la co
_1·	Calculate edge betweenness for remaining edges. Repeat steps 2-4 until all edges are removed.
	In order to calculate edge betweenness it is necessary to find all shortest paths going through that vertex. The algorithm of arts with one vertex, calculates edge weights for paths going through that vertex, and then repeats it for each vertex in the graph and sums up the weights for every edge
	all shortest paths aring through that vertex
	The alapsithm of alls with one wester calculate edge weights
	log hathe gome thereigh that vertex and then were to ill log
	bach vertex in the aunt and ausse up the weight for
	every a doc
	every edge.
	Condusion:
	Thus, we have successfully implemented social network analysis
P	using Girwan Newman alapsithm
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