NAME
>   cluster − find clusters in a graph and augment the graph with this information.

SYNOPSIS
>   **cluster** [−**v?**] [−**C***k*] [−**c***k*] [−**o** *outfile*] [*files*]

DESCRIPTION
>   **cluster** takes as input a graph in DOT format, finds node clusters and augments the graph with this informa-
>   tion. The clusters are specified by the "cluster" attribute attached to nodes; cluster values are non-negative
>   integers. **cluster** attempts to maximize the modularity of the clustering. If the edge attribute "weight" is
>   defined, this will be used in computing the clustering.

OPTIONS
>   The following options are supported:

>   −**C***k*   specifies a targeted number of clusters that should be generated. The specified number k is only a
>   suggestion and may not be realisable. If $k == 0$, the default, the number of clusters that approxi-
>   mately optimizes the modularity is returned.

>   −**c***k*   specifies clustering method. If $k == 0$, the default, modularity clustering will be used. If $k == 1$
>   modularity quality will be used.

>   −**o***outfile*
>   Specifies that output should go into the file *outfile*. By default, *stdout* is used.

>   −**v**   Verbose mode.

EXAMPLES
>   Applying **cluster** to the following graph,

>   **graph {**
>   **1--2 [weight=10.]**
>   **2--3 [weight=1]**
>   **3--4 [weight=10.]**
>   **4--5 [weight=10]**
>   **5--6 [weight=10]**
>   **3--6 [weight=0.1]**
>   **4--6 [weight=10.]**
>   **}**

>   gives

>   **graph {**
>   **node [cluster="-1"];**
>   **1 [cluster=1];**
>   **2 [cluster=1];**
>   **3 [cluster=2];**
>   **4 [cluster=2];**
>   **5 [cluster=2];**
>   **6 [cluster=2];**
>   **1 -- 2 [weight="10."];**
>   **2 -- 3 [weight=1];**
>   **3 -- 4 [weight="10."];**
>   **4 -- 5 [weight=10];**
>   **5 -- 6 [weight=10];**
>   **3 -- 6 [weight="0.1"];**
>   **4 -- 6 [weight="10."];**
>   **}**

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SEE ALSO
>   gvmap(1)

>   Blondel, V.D., Guillaume, J.L., Lambiotte, R., Lefebvre, E.: Fast unfolding of communities in large networks. Journal of Statistical Mechanics: Theory and Experiment (2008), P10008.