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.