# Algorithmes dans les graphes - projet

L3 MIAGE Apprentissage

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% python

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NAME

ShaikhJolion

#### **DESCRIPTION**

ShaikhJolion.py is an algorithm that consists of modifying the minimum of edges (add or deleting) so that from an undated, unweighted graph with edges between certain vertices (2 vertices are considered "similar" if they have an edge between them, "not similar" otherwise), the result is a cluster graph, i.e. a collection of cliques. The main idea of our algorithm is to choose the vertice of the highest degree and form a clique bringing together vertice well as all its neighbors. as We then remove the edges involved in the created clique, and renew the process, until all the vertices of the original graph belong to a clique.

## **FUNCTIONS**

## DegreSommet(Graphe)

Function that gives the list of vertices with their degree

## UnionClique(Graphe)

Function of changing the minimum of edges and having a set of cliques from an undirected, unweighted graph

# ajoutArete(Graphe, u, v)

Function to add an edge between two given peaks

#### creerClique(Graphe, u, ListeEdition, Explore)

Function to create a click from a given vertice

#### degreMax(ListeDegre)

Function to have the vertice with the greatest degree

#### grapheSansClique(Graphe, ListeEdition, Explore)

Function that removes all the vertices belonging to a click from a given graph in settings (list Explore)

# supprimerArete(Graphe, u, v)

Function that removes a given edge

## FILE

c:\users\anamn\projetgraphes\projetgraphes\ShaikhJolion.py