## Prim <Struct> PrimYapi -number:int -primName:string +x:double -p[100]:PrimYapi struct +y:double -weightData:int vector -x:double vector -y:double vector -getNumber():int const -CalculatePrim() -GraphPrim(vector<double>&, vector<double>&, vector<int>&) +Prim(string const string,const vector<Edge> &,int) +setPrimMap() +minKey(double key[], bool mstSet[]):double +calculateWight(vector<double> &, vector<double>&):int vector +getX(int):double +getY(int):double

## -valueCluster:int vector -xCentroid:double vector -valueCluster:double vector -pointsData:double vector -name:string -clusters:Cluster vector -drawCluster() -drawCentroid() -choosePlotCluster(int,int) -choosePlotCentroid() -readClusterData() -readCentroidData() -getName():string const -setName(string) -getXCentroid(int):double const KMeans -getYCentroid(int):double const -getXCentroid(int):double vector const -K:int -getYCentroid(int):double vector const -iters:int -setXCentroid(double) -dimensions:int -setYCentroid(double) -total points:int -setValueCluster(int) -clusters:Cluster vector -operator<<(ostream&,const Node&)friend -all points:Edge vector +Graph(const string,const vector<Edge> &) -clearClusters() +graphKMeansClustering(string) -getNearestClusterId(Edge):int +getValueCluster():int vector -setK(int) +getCluster(int):int const -setIters(int) +~Graph() -setEdgePoints(vector<Edge> &) -getK():int const -getIters():int const -getPoints():Edge vector const -printClusterResult() -printCentroidResult() -writeFileCluster() -writeFileCentroid() +KMeans(vector<Edge>&,int, int) +run() +printPoints(vector<Edge> &)const +printResult()

Graph

#points:Edge vector

## Cluster -clusterId:int -centroid:int -points:Edge vector +Cluster(int, Edge) +addPoint(Edge) +removePoint(int):bool +removeAllPoints() +getId():int +getPoint(int):Edge Edge +getSize():int +getCentroidByPos(int):double -pointId:int Node +setCentroidByPos(int,double) -clusterId:int -dimensions:int -txtName: string const -values:double vector -data: double vector -lineToVec(vector<double>&):double vector -x: double vector +Edge(int, vector<double> &) -y: double vector +getDimensions():int -count: int static +getCluster():int -countXCoordinate: int static +getID():int -countYCoordinate: int static +setCluster(int) -operator<<(ostream&,const Node&)friend +getDimension()const +Node(const string &) +getVal(int) +readCoordinates(string) +getCount():int static +getcountXCoordinate():int static +getcountYCoordinate():int static +sperateXYCoordinate() +setX(double) +setY(double) +getX():double const +getY():double const +getTxtName():string const +print() +getData():double vector const

+~Node()