

LSOVOMAN

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

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Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

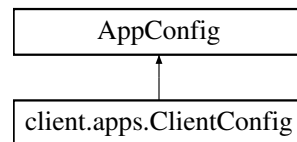
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Chapter 3

Class Documentation

3.1 `client.apps.ClientConfig` Class Reference

Inheritance diagram for `client.apps.ClientConfig`:



Static Public Attributes

- string `name` = 'client'

The documentation for this class was generated from the following file:

- `C:/Users/thors/Documents/Repositories/Isovaman/client/apps.py`

3.2 `client.clustering.Cluster` Class Reference

Public Member Functions

- def `__init__`(self, id, parent_id, level, graph)

Public Attributes

- `id`
- `parent_id`
- `level`
- `graph`

3.2.1 Constructor & Destructor Documentation

3.2.1.1 `__init__()`

```
def client.clustering.Cluster.__init__ (
    self,
    id,
    parent_id,
    level,
    graph )
```

Initialises a cluster.

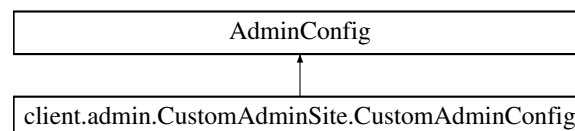
```
:param id: unique identifier of the cluster
:param parent_id: unique identifier of the (parent/predecessor) cluster
:param level: level this cluster exists on
:param graph: reference to the cluster as a graph
```

The documentation for this class was generated from the following file:

- C:/Users/thors/Documents/Repositories/Isovaman/client/clustering.py

3.3 `client.admin.CustomAdminSite.CustomAdminConfig` Class Reference

Inheritance diagram for `client.admin.CustomAdminSite.CustomAdminConfig`:



Static Public Attributes

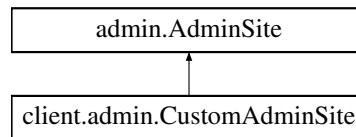
- string `default_site` = 'Isovaman.admin.CustomAdminSite'

The documentation for this class was generated from the following file:

- C:/Users/thors/Documents/Repositories/Isovaman/client/admin.py

3.4 client.admin.CustomAdminSite Class Reference

Inheritance diagram for client.admin.CustomAdminSite:



Classes

- class **CustomAdminConfig**

Public Member Functions

- def **get_urls** (self)
- def **update_data_view** (self, request)

The documentation for this class was generated from the following file:

- C:/Users/thors/Documents/Repositories/lsovaman/client/admin.py

3.5 client.clustering.HierarchicalClustering Class Reference

Public Member Functions

- def **__init__** (self, table, node_entities, max_size_cluster=12)
- def **load** (self, table, node_entities)
- def **agglomcluster** (self, cluster)
- def **generate_kathi_format** (self)
- def **get_cluster_by_level** (self, level)
- def **generate_colo_json_string** (self)

Public Attributes

- **cluster**
- **cluster_by_level**
- **cluster_counter**
- **numLevels**
- **cluster_id**
- **max_size_cluster**
- **clusterer**
- **meta_graphs**
- **clusters**
- **nx_graph**

3.5.1 Detailed Description

Class handling the hierarchical clustering of the nodes.

3.5.2 Constructor & Destructor Documentation

3.5.2.1 `__init__()`

```
def client.clustering.HierarchicalClustering.__init__ (
    self,
    table,
    node_entities,
    max_size_cluster = 12 )
```

Initialises the HierarchicalClustering object.
Loading a new nx graph and executing agglom cluster on it.
Creates the correct format necessary for rendering.
:param table: Table in the standard RTR format read by pandas
:param node_entities: All unique node entities
:param max_size_cluster: maximum number of nodes per cluster

3.5.3 Member Function Documentation

3.5.3.1 `agglomcluster()`

```
def client.clustering.HierarchicalClustering.agglomcluster (
    self,
    cluster )
```

Creating the clusters and computing the levels for each cluster.
:param cluster: Lowest level cluster (i.e. graph without meta nodes)

3.5.3.2 `generate_colo_json_string()`

```
def client.clustering.HierarchicalClustering.generate_colo_json_string (
    self )
```

Generates the json format required to use webcola.
:return: json string

3.5.3.3 generate_kathi_format()

```
def client.clustering.HierarchicalClustering.generate_kathi_format (
    self )
```

Generates all necessary attributes necessary for using rendering provided by Kathi('s master thesis).

3.5.3.4 get_cluster_by_level()

```
def client.clustering.HierarchicalClustering.get_cluster_by_level (
    self,
    level )
```

Returns all clusters for the specified level.
:param level: Level which clusters should be returned
:return: returns the ids as an array

3.5.3.5 load()

```
def client.clustering.HierarchicalClustering.load (
    self,
    table,
    node_entities )
```

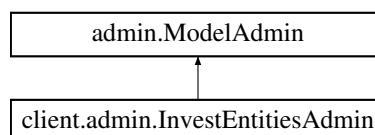
Loads the table into an nx graph.
:param table: Table in the standard RTR format read by pandas
:param node_entities: All unique node entities
:return: nx graph

The documentation for this class was generated from the following file:

- C:/Users/thors/Documents/Repositories/Isovaman/client/clustering.py

3.6 client.admin.InvestEntitiesAdmin Class Reference

Inheritance diagram for client.admin.InvestEntitiesAdmin:

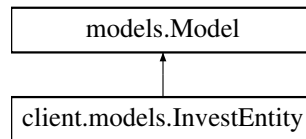


The documentation for this class was generated from the following file:

- C:/Users/thors/Documents/Repositories/Isovaman/client/admin.py

3.7 client.models.InvestEntity Class Reference

Inheritance diagram for client.models.InvestEntity:



Static Public Attributes

- **legal_entity** = models.ForeignKey(**NodeEntity**, on_delete=models.CASCADE, related_name='+')
- **media_entity** = models.ForeignKey(**NodeEntity**, on_delete=models.CASCADE, related_name='+')
- **year** = models.IntegerField()
- **quarter** = models.IntegerField()
- **euro** = models.DecimalField(max_digits=1024, decimal_places=2)
- **paragraph** = models.IntegerField()

3.7.1 Detailed Description

Representing an investment of a legal entity (Rechtstraeger) to a media entity (Mediuminhaber).

The documentation for this class was generated from the following file:

- C:/Users/thors/Documents/Repositories/lsovaman/client/models.py

3.8 client.kathi_clustering.KathisHierarchicalClustering Class Reference

Public Member Functions

- def **__init__**(self)
- def **agglomcluster**(self, currNxGraph, prevNxGraph, k, biadjacency, row_order, column_order, level=0, parent=None)

Public Attributes

- **cluster**
- **cluster_by_level**
- **cluster_counter**

The documentation for this class was generated from the following file:

- C:/Users/thors/Documents/Repositories/lsovaman/client/kathi_clustering.py

3.9 client.KathisMagicProcessor.KathisMagicProcessor Class Reference

Public Member Functions

- def **__init__** (self, path, set1_col=None, set2_col=None, weight_col=None, time_col=None, hierarchical_clustering=None)
- def **read_data_csv** (self, path)
- def **normalize_data** (self)
- def **normalize** (self, min, max, value)
- def **read_data_json** (self, path)
- def **get_attribute_from_entrylist** (self, entrylist, columnname)
- def **update_node** (self, label, type, weight, time, attr)
- def **update_link** (self, source, target, type, weight, time, attr)
- def **create_from_line** (self, line)
- def **get_columns** (self, line)
- def **get_set1_nodes** (self)
- def **get_set2_nodes** (self)
- def **cluster_data** (self)
- def **create_cluster_from_level_list** (self, level_cluster)
- def **calculate_level_data** (self, levels)
- def **get_links_between_nodes** (self, set1nodes, set2nodes, clusterNodes)
- def **get_link_data** (self, source, target)
- def **calculate_link** (self, source, target, sublinks)
- def **adjacent** (self, source, target)
- def **export_graph_data** (self, path, name)
- def **set_graphdata** (self)
- def **num** (s)

Public Attributes

- **nxGraph**
- **clusterGraphs**
- **nxProj1**
- **nxProj2**
- **graphdata**
- **print**
- **hierarchical_clustering**
- **all_nodes**
- **all_links**
- **proj_links**
- **proj_nodes**
- **cluster_links**
- **cliques**
- **cluster**
- **maxNodeSize**
- **minNodeSize**
- **maxLinkSize**
- **minLinkSize**
- **levelData**
- **label2Node**
- **id2Node**
- **nodeIds2Link**
- **start**

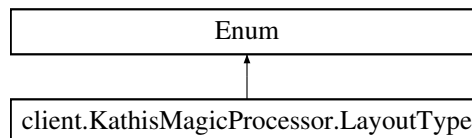
- `prev`
- `now`
- `stats`
- `set1_col`
- `set2_col`
- `weight_col`
- `time_col`
- `columns`
- `attributes`

The documentation for this class was generated from the following file:

- `C:/Users/thors/Documents/Repositories/Isovaman/client/KathisMagicProcessor.py`

3.10 `client.KathisMagicProcessor.LayoutType` Class Reference

Inheritance diagram for `client.KathisMagicProcessor.LayoutType`:



Static Public Attributes

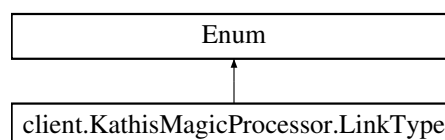
- `int FORCE = 1`
- `int NX_BIPARTITE = 2`
- `int NX_CIRCULAR = 3`
- `int NX_KAMADA_KAWAI = 4`
- `int NX_PLANAR = 5`
- `int NX_RANDOM = 6`
- `int NX_SHELL = 7`
- `int NX_SPRING = 8`
- `int NX_SPECTRAL = 9`
- `int CONSTRAINED = 10`
- `int D3 = 11`

The documentation for this class was generated from the following file:

- `C:/Users/thors/Documents/Repositories/Isovaman/client/KathisMagicProcessor.py`

3.11 `client.KathisMagicProcessor.LinkType` Class Reference

Inheritance diagram for `client.KathisMagicProcessor.LinkType`:



Static Public Attributes

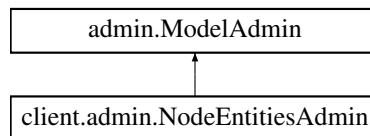
- int **TWO_MODE_PROJECTION** = 1
- int **ONE_MODE_PROJECTION_1** = 2
- int **ONE_MODE_PROJECTION_2** = 3
- int **CLUSTER** = 4

The documentation for this class was generated from the following file:

- C:/Users/thors/Documents/Repositories/Isovaman/client/KathisMagicProcessor.py

3.12 client.admin.NodeEntitiesAdmin Class Reference

Inheritance diagram for client.admin.NodeEntitiesAdmin:

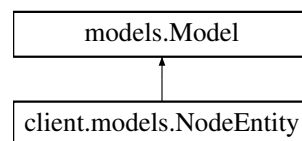


The documentation for this class was generated from the following file:

- C:/Users/thors/Documents/Repositories/Isovaman/client/admin.py

3.13 client.models.NodeEntity Class Reference

Inheritance diagram for client.models.NodeEntity:



Static Public Attributes

- **name** = models.CharField(max_length=128)
- **type** = models.BooleanField()

3.13.1 Detailed Description

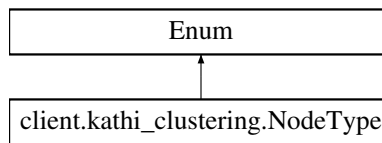
Represents a media (`type = false`) or legal entity (`type = true`).

The documentation for this class was generated from the following file:

- C:/Users/thors/Documents/Repositories/Isovaman/client/models.py

3.14 client.kathi_clustering.NodeType Class Reference

Inheritance diagram for client.kathi_clustering.NodeType:



Static Public Attributes

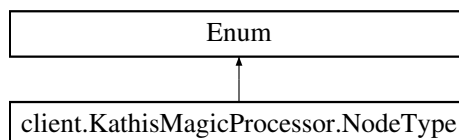
- int **SET1** = 1
- int **SET2** = 2
- int **CLUSTER** = 3
- int **SET1_CLIQUE** = 4
- int **SET2_CLIQUE** = 5
- int **TWO_MODE_PROJECTION** = 6
- int **ONE_MODE_PROJECTION_1** = 7
- int **ONE_MODE_PROJECTION_2** = 8
- int **BICLIQUE** = 9

The documentation for this class was generated from the following file:

- C:/Users/thors/Documents/Repositories/Isovaman/client/kathi_clustering.py

3.15 client.KathisMagicProcessor.NodeType Class Reference

Inheritance diagram for client.KathisMagicProcessor.NodeType:



Static Public Attributes

- int **SET1** = 1
- int **SET2** = 2
- int **CLUSTER** = 3
- int **SET1_CLIQUE** = 4
- int **SET2_CLIQUE** = 5
- int **TWO_MODE_PROJECTION** = 6
- int **ONE_MODE_PROJECTION_1** = 7
- int **ONE_MODE_PROJECTION_2** = 8
- int **BICLIQUE** = 9

The documentation for this class was generated from the following file:

- C:/Users/thors/Documents/Repositories/Isovaman/client/KathisMagicProcessor.py

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