

dhbk.maas.httpconnect
dhbk.maas.hadoop.monitor
dhbk.maas.hadoop.monitor.obj
dhbk.maas.mahout.excute
dhbk.maas.utils
dhbk.maas.mahout.servlet.classification
dhbk.maas.mahout.servlet.clustering
dhbk.maas.mahout.servlet.recommendation

dhbk.maas.httpconnect

Class HttpConnect

** Provide methods to connect and send request to host

Constructor Summary :

HttpConnect () : Constructs a new http connect that is invisible

Method Summary :

public HttpResponse sendRequestGet (String url, Header[] headers)
throws ClientProtocolException, IOException

- Send request GET
- Params :
 - o String url : URL will receive request
 - o Header[] headers : array header to add on request
- Return org.apache.http.HttpResponse

public HttpResponse sendRequestPost (String url, Header[] headers, ArrayList<String[]> values)

- Send request POST
- Params :
 - o String url : URL will receive request
 - o Header[] headers : array header to add on request

- o `ArrayList<String[]> values` : pairs params `<key, value>` will add on request
- Return `org.apache.http.HttpResponse`

[dhbk.maas.hadoop.monitor](#)

*** Manage components on hadoop

Class HistoryServer

** Manage history server

Constructor Summary :

HistoryManage (String address) : Constructs a new object manage history with address host is address and port will take value `DEFAULTL_PORT`

HistoryManage (String address, String port) : Constructs a new object manage history with address host is address and port is port

Method Summary :

*public ArrayList<HistoryJob> getHistoryJobs () throws
ClientProtocolException, IOException, JSONException*

- Get about list objects history job
- Return `ArrayList<HistoryJob>`

*public HistoryInfo getHistoryInfo () throws ClientProtocolException,
IOException, JSONException*

- Get about information history
- Return `ArrayList<HistoryInfo>`

*public HistoryJob getHistoryJob () throws ClientProtocolException,
IOException, JSONException*

- Get about object history job
- Return `HistoryJob`

*public ArrayList< HistoryJobConf> getHistoryJobConfig () throws
ClientProtocolException, IOException, JSONException*

- Get about list object history job conf
- Return `ArrayList< HistoryJobConf>`

*public ArrayList<HistoryJobTask> getHistoryJobTasks (String idJob)
throws ClientProtocolException, IOException, JSONException*

- Get information history job task
- Return ArrayList<HistoryJobTask>

Field Summary :

```
private String url ;           // URL connection
private String address ; // address host name
private String port ;        // port conection, initialized DEFAULT_PORT

private static final String HISTORY_JOB_PATH;           // Default path
private static final String HISTORY_JOB_TASK_PATH
private static final String DEFAULT_PORT; // Default port
```

* Attributes of job

```
public static final String HIS_SUBMITTIME ;
public static final String HIS_STATE;
public static final String HIS_USER;
public static final String HIS_REDUCESTOTAL;
public static final String HIS_MAPSCOMPLETED ;
public static final String HIS_STARTTIME;
public static final String HIS_ID;
public static final String HIS_NAME;
public static final String HIS_REDUCECOMPLETED;
public static final String HIS_MAPSTOTAL;
public static final String HIS_QUEUE;
public static final String HIS_FINISHTIME;

public static final String HIS_JOB_TASK_PROGRESS;
public static final String HIS_JOB_TASK_ELAPSEDTIME;
public static final String HIS_JOB_TASK_STATE;
public static final String HIS_JOB_TASK_STARTTIME;
public static final String HIS_JOB_TASK_ID;
public static final String HIS_JOB_TASK_TYPE;
public static final String HIS_JOB_TASK_SUCCESSFULATTEMPT;
public static final String HIS_JOB_TASK_FINISHTIME;
```

Class ApplicationMaster

** Manage application on hadoop

Class NodeManage

** Manage node of hadoop

Class ResourceManage

** Manage resource (cluster)

Constructor Summary :

ResourceManage (String address) : Constructs a new object manage history with address host is address and port will take value *DEFAULTL_PORT*

ResourceManage (String address, String port) : Constructs a new object manage history with address host is *address* and port is *port*

Method Summary :

public ArrayList<ReMngClusterApp> getClusterApps (int nTop) throws IOException, JSONException

- Get list object ReMngClusterApp
- Return *ArrayList<ReMngClusterApp>*

public ReMngClusterApp getClusterApp (String appld) throws ClientProtocolException, IOException, JSONException

- Get an object ReMngClusterApp
- Return *ReMngClusterApp*

Field Summary :

private static final String HTTP ;

private static final String REMNG_CLUSTER_APPS_PATH ;

public static final String REMNG_CLUSTER_APP_FINISHEDTIME ;

public static final String REMNG_CLUSTER_APP_AMCONTAINERLOGS ;

public static final String REMNG_CLUSTER_APP_TRACKINGUI ;

public static final String REMNG_CLUSTER_APP_STATE ;

public static final String REMNG_CLUSTER_APP_USER ;

public static final String REMNG_CLUSTER_APP_ID ;

public static final String REMNG_CLUSTER_APP_CLUSTERID ;

public static final String REMNG_CLUSTER_APP_FINALSTATUS ;

public static final String

REMNG_CLUSTER_APP_AMHOSTHTTPADDRESS ;

public static final String REMNG_CLUSTER_APP_PROGRESS ;

public static final String REMNG_CLUSTER_APP_NAME ;

public static final String REMNG_CLUSTER_APP_STARTEDTIME ;

```

public static final String REMNG_CLUSTER_APP_ELAPSEDTIME ;
public static final String REMNG_CLUSTER_APP_DIAGNOSTICS ;
public static final String REMNG_CLUSTER_APP_TRACKINGURL ;
public static final String REMNG_CLUSTER_APP_QUEUE ;
public static final String REMNG_CLUSTER_APP_ALLOCATEDMB ;
public static final String REMNG_CLUSTER_APP_ALLOCATEDVCORES;
public static final String REMNG_CLUSTER_APP_RUNNINGCONTAINERS;

private static final String DEFAULT_PORT = "8088";

private String url;
private String address;
private String port = DEFAULT_PORT;

```

[dhbk.maas.hadoop.monitor.obj](#)

*** Include many objects are managed on hadoop

Class HistoryJob

** manage object job on hadoop

Constructor Summary :

```

public HistoryJob (String submitTime, String state, String user, String
    reducesToal, String mapsCompleted, String startTime, String id,
    String name, String reducesCompleted, String mapsTotal, String
    queue, String finish) :
// Constructs a new object history job with informations attributes

```

Field Summary :

```

public String submitTime;           // time submit job
public String state;                // state job
public String user;                 // user call job
public String reducestotal;
public String mapscompleted;
public String starttime;
public String id;
public String name;

```

```
public String reducescompleted;  
public String mapstotal;  
public String queue;  
public String finishtime;
```

Class HistoryInfo

Class HistoryJobConf

Class HistoryJobTask

Class HistoryJobTasks

** Manage job task

Constructor Summary :

```
public HistoryJobTask (String progress, String elapsedTime, String  
state, String startTime, String id, String type, String  
successfulAttempt, String finishTime)
```

Field Summary :

```
public String progress;  
public String elapsedTime;  
public String state;  
public String startTime;  
public String id;  
public String type;  
public String successfulAttempt;  
public String finishTime;
```

Class ReMngClusterApp

** Manage applications on cluster

Constructor Summary :

```
public ReMngClusterApp (String finishedTime, String amContainerLogs,  
String trackingUI, String state, String user, String id, String  
clusterId, String finalStatus, String amHostHttpAddress, String  
progress,String name, String startedTime, String elapsedTime,
```

String diagnostics, String trackingUrl, String queue, String allocatedMB, String allocatedVCores, String runningContainers)

Field Summary :

```
public String finishedTime;  
public String amContainerLogs;  
public String trackingUI;  
public String state;  
public String user;  
public String id;  
public String clusterId;  
public String finalStatus;  
public String amHostHttpAddress;  
public String progress;  
public String name;  
public String startedTime;  
public String elapsedTime;  
public String diagnostics;  
public String trackingUrl;  
public String queue;  
public String allocatedMB;  
public String allocatedVCores;  
public String runningContainers;
```

[dhbk.maas.mahout.excute](#)

*** Send request to excute mahout 's jobs

Class Classification

** implementation machine learning Classification

Class Clustering

** implementation machine learning Clustering

Class Recommendations

** implementation machine learning Recommendations

Constructor Summary :

Recommendations (String address) : Constructs a new object manage history with address host is address and port will take value DEFAULT_PORT

Recommendations (String address, String port): Constructs a new object manage history with address host is address and port is port

Method Summary :

public String getRecommender () throws ClientProtocolException, IOException

- Get result algorithm Recommender of Mahout on Server
- Return String

Field Summary :

```
private String url ;           // URL connection  
private String address ; // address host name  
private String port ;      // port connection, initialized DEFAULT_PORT  
  
private static final String HISTORY_JOB_PATH; // Default path  
private static final String DEFAULT_PORT; // Default port
```

dhabk.maas.uts

*** Provide more utility function

MAAS SERVLET

[dhbk.maas.mahout.servlet.classification](#)

[dhbk.maas.mahout.servlet.clustering](#)

[dhbk.maas.mahout.servlet.recommendation](#)

*** Machine learning recommendation

Class Recommender

extends javax.servlet.http.HttpServlet

** receive request from user and excute algorithm recommender in mahout

Method Summary :

doGet(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException

// process request get from client

doPost(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException

// process request post from client