SimUtils.java

**Summary:** This module creates utilities-- random nbr (int, dbl, ong), deletes output folder before creating, get time diff, and places types based on attractiveness level

1. int getRandomNumber(int start, int end)

This function gets a random nbr as integer between two integer nbrs.

1. double getRandomDoubleNumber(double start, double end)

This function gets a random nbr as double between two double nbrs.

1. long getRandomLongNumber(int start, int end)

This function gets a random nbr as long between two integer nbrs.

1. void cleanOutputFolder(String outputFolder)

This function cleans the folder where the results will be stored.

1. String createOutputFolder(String outputFolder)

This function creates the folder where output files will be saved.

1. String getTimeDifference(Date startDate, Date endDate)

This function calculates the time difference in terms of Days/Hrs/Min/Sec/Msec

1. PLACE\_TYPES stringToPlace(String attractiveness)

This function creates placeType (1,2,3) based on attractiveness level (1,2,3)

1. Random getRng()

This function creates a Randon nbr

VmLoadLogItem.java

**Summary:** This utility finds out how loaded VM is and what time.

1. double getLoad()

This function gets the load in a numeric scale

1. String toString()

This function converts everything to text

FNNwUtilLogItem

1. String toString()

It returns – time, hostId, hostLevel, fnNwUtil all as one string.

1. double getTime()

It returns time

1. void setTime(double time)

It sets the time

1. int getHostId()

It sets the hostId

1. void setHostId(int hostId)

It returns the hostId

1. int getHostLevel()

It gets the hostlevel //These levels based on layers

1. void setHostLevel(int hostLevel)

It sets the hostlevel

1. double getFnNwUtil()

It gets FnNwUtil //Network utilization

1. void setFnNwUtil(double fnNwUtil)

It sets FnNwUtil

FNMipsUtilLogItem

1. String toString()

It returns – time, hostId, hostLevel, fnMipsUtil all as one string.

1. double getTime()

It returns time

1. void setTime(double time)

It sets the time

1. int getHostId()

It sets the hostId

1. void setHostId(int hostId)

It returns the hostId

1. int getHostLevel()

It gets the hostlevel

1. void setHostLevel(int hostLevel)

It sets the hostlevel

1. double getMipsUtil()

It gets FnMipsUtil

1. void setFnMipsUtil(double fnMipsUtil)

It sets FnMipsUtil