EdgeTask.java

**Summary:** This module determines whether a task needs wifi access point, the device needs a sensor

and actuator using I-O file-size, start-time, source/destination device-Id & pesNbr(??). It uses standard

getter/setter methods of OOP sothat the functions be accessible to the other modules of this app.

1. EdgeTask(**int** \_mobileDeviceId, APP\_TYPES \_taskType, **double** \_startTime, ExponentialDistribution[][] expRngList, **boolean** \_wifi, **boolean** \_sensor, **boolean** \_actuator)

This module accepts the above input params and then determines the followings.

mobileDeviceId=\_mobileDeviceId;

startTime=\_startTime;

taskType=\_taskType;

wifi = \_wifi;

sensor = \_sensor;

actuator = \_actuator;

inputFileSize = ExponentialDistribution[i][0] where i <= 7; //This ExpDistr is explained in PoissonDistr.java module

outputFileSize = ExponentialDistribution[i][1] where i <= 7;

length = ExponentialDistribution[i][2] where i <= 7;

pesNumber = getTaskLookUpTable()[i][CORES\_REQUIRED] where i <= 7;

1. void setDesMobileDeviceId(int deviceId)

This method sets the devise id.

1. APP\_TYPES getTaskType()

It returns taskTypes which are –

1. AUGMENTED\_REALITY,
2. HEALTH\_APP,
3. HEAVY\_COMP\_APP,
4. INFOTAINMENT\_APP,
5. COGNITIVE\_ASSISTANCE,
6. REMOTE\_HEALTHCARE,
7. MACHINE\_LEARNING
8. void setTaskType(APP\_TYPES taskType)

This method sets the task-type.

1. double getStartTime()

It gets the Start Time

1. void setStartTime(double startTime)

It sets the Start Time

1. long getLength()

It gets the length of the current object it is acting upon

1. void setLength(long length)

It sets the length of the current object

1. long getInputFileSize()

It gets input file size

1. void setInputFileSize(long inputFileSize)

It sets the input file size

1. long getOutputFileSize()

It gets output file size

1. void setOutputFileSize(long outputFileSize)

It sets the output file size

1. int getPesNumber()

It gets the Pes Nbr //Nbr of Cores in CPU

1. void setPesNumber(int pesNumber)

It sets the Pes Nbr

1. int getMobileDeviceId()

It gets the Mobile devise Id

1. void setMobileDeviceId(int mobileDeviceId)

It sets the mobile devise Id

1. boolean isWifi()

It checks whether WiFi is existing(T) or not(F)

1. void setWifi(boolean wifi)

It sets the Wifi

1. boolean isSens()

It checks whether there is any sensor(T) or not(F)

1. void setSens(boolean sens)

It sets the sensor

1. boolean isAct()

It checks whether there is any actuator(T) or not(F).

An "actuator" is a device receiving data from a sensor network and translates it into physical actions, like turning on a light, adjusting a temperature setting, or opening a valve, within a connected environment.

1. void setAct(boolean act)

It sets the actuator

1. int getDesMobileDeviceId()

It gets destination mobile devise Id. Don’t see this routine being set.