Class Diagram of D2

Assumption: We are considering E team Interface to generate the CommObj

<<@interface>>
CommunicationInterface

receiveData()

EInterface

ReceiveData()

Assumption: Input will be provided by EInterface
This node will call receiveData(CommObj) method of CoomunicationInterface

CommObj

MsgId
TargetNode
SrcNode
NodeType
FieldType
Data
TimeSend
TimeRec
Priority
Ack

equals()

Atributes:
MsgId: int
TargetNode(NodeID): int
SrcNode(NodeID): int
NodeType: int(0-Social, 1-Info)
FieldType: string
Data: Object
TimeSent: long
TimeRec: long
Priority(1-10):1-Highest
Ack: bool

CommunicationNetworkNode

timeoutPeriod
nodeId
messageQueue
messageBucket

sendData()
sendAck()
resendData()
validateCommObj()
putIntoMessgQueue()
putIntoMessgBucket()
deleteFromMessgBucket()

SocialNetworkNode

displayCommObj()

Database

inserCommObj()

InformationNetworkNode

displayCommObj()
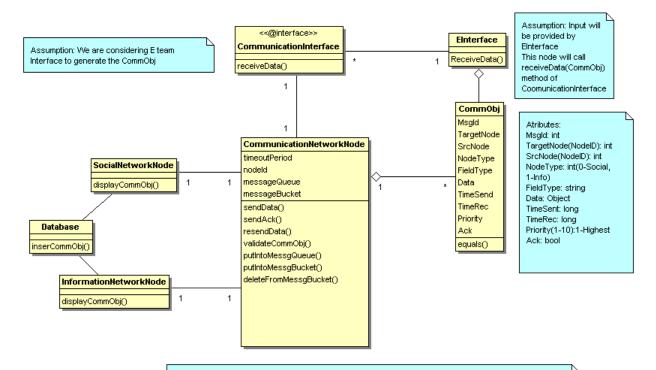
Attributes:
timeoutPeriod: long After this time period CommObj will be resent using resendData()
nodeId: Int Depending on this sourceNode and targetNode will be identified
messageQueue: priorityQueue<CommObj> Is a priority queue which contains all CommObj which is to be sent
messageBucket: Queue<CommObj> Consist of all CommObj without acknowledgement

Operation:
validateCommObj(): This method is used to verify whether the CommObj fields entered are correct and also it indicates the NodeType