Normalization

**1NF**

**Freight**( freightID, InListID, outListID, listID, targetID, freightDirection, origin, arrivalTime, departureTime, areaID, locX, locY, stackLvl, agentID, AgentName, agentEmail, Specialisation, documentID, approval, direction, PICName, vehicleID, VehicleTypeID, vehicleName, vehicleMaxFreightCounts, vehicleCap, VehicleDescription, freighTypeID, freighTypeName, freighHeight, freighLength, tareWeight, maxgrossWeight, maxNetWeight )

For 2NF, There should be no Partial Dependency.

**Partial Dependency**

freightID ->freighTypeID freighTypeName, freighHeight, freighLength, tareWeight, maxgrossWeight, maxNetWeight, InListID, outListID, arrivalTime, departureTime, areaID, locX, locY, stackLvl

agentID-> AgentName, agentEmail, Specialisation, listID, documentID, approval, direction

targetID -> PICName, vehicleID, VehicleTypeID, agentID

VehicleTypeID -> vehicleName, vehicleMaxFreightCounts, vehicleCap, VehicleDescription

**2NF**

freight (freightID, freighTypeID freighTypeName, freighHeight, freighLength, tareWeight, maxgrossWeight, maxNetWeight, InListID, outListID, arrivalTime, departureTime, areaID, locX, locY, stackLvl )

list (freightID, listID, freighTypeID, targetID, origin, freightDirection)

agent (agentID, AgentName, agentEmail, Specialisation, listID, documentID, approval, direction )

targetInfo (targetID, PICName, vehicleID, VehicleTypeID, agentID )

vechicleInfo(VehicleTypeID , vehicleName, vehicleMaxFreightCounts, vehicleCap, VehicleDescription )

For 3NF, There should be no transitive Dependency.

**Transitive Dependency**

arrivalTime, departureTime -> InListID, outListID

freighttypeID -> freighTypeName, freighHeight, freighLength, tareWeight, maxgrossWeight, maxNetWeight

listID -> documentID, approval, direction

**3NF**

frieght (freightID, InListID, arrivalTime, areaID, locX, locY, stackLvl )

freightType (freighttypeID , freighTypeName, freighHeight, freighLength, tareWeight, maxgrossWeight, maxNetWeight )

historicalFreight (freightID, arrivalTime, departureTime, InListID, outListID)

agent (agentID, AgentName, agentEmail, Specialisation )

request (listID, agentID, documentID, approval, direction)

targetInfo (targetID, PICName, vehicleID, VehicleTypeID, agentID )

vechicleInfo(VehicleTypeID , vehicleName, vehicleMaxFreightCounts, vehicleCap, VehicleDescription )

list (freightID, listID, freighTypeID, targetID, origin, freightDirection)