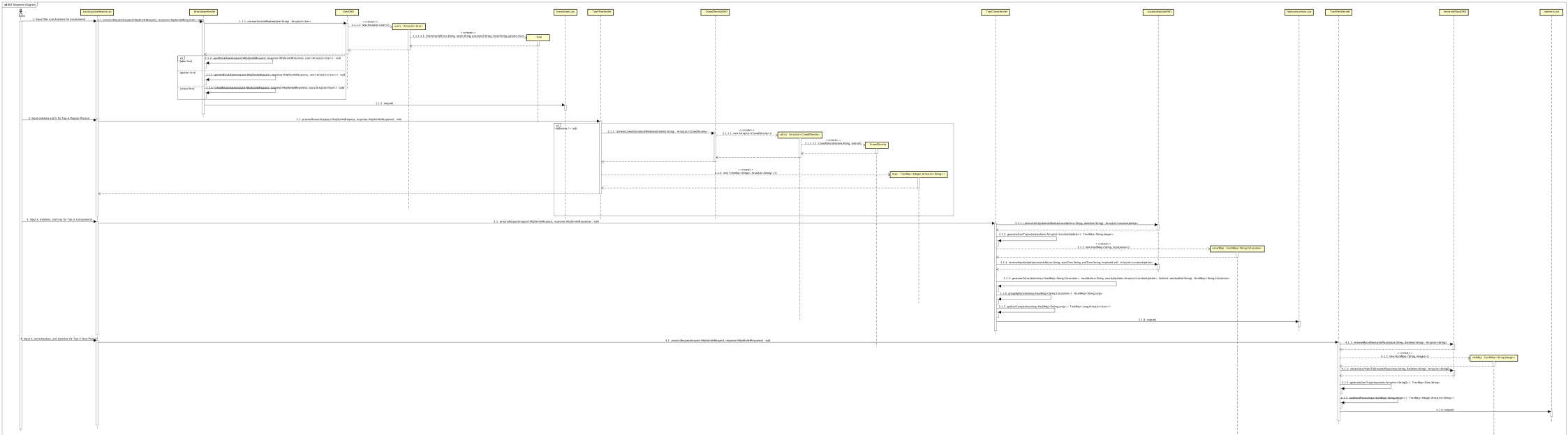
sdBLB Sequence Diagram
User
1: input filter and datetime for timeline(s)
1.1: processRequest(request:HttpServletRequest, response:HttpServletResponse) : void
1.1.1: retrieveUserInfo(mobileID String) : Array<List<User>>
<<CREATE>>
1.1.1.1: new Array<List<User>>()
list1 : Array<List<User>>
<<CREATE>>
1.1.1.2.1: UserInfo(fullName String, lastNameFirst String, emailID String, gender Char, ...)
User
alt
[gender line]
1.1.1.2: setUserInfo(request:HttpServletRequest, response:HttpServletResponse, user:Array<User>) : void
[gender line]
1.1.1.3: setUserInfo(request:HttpServletRequest, response:HttpServletResponse, user:Array<User>) : void
[school line]
1.1.1.4: setUserInfo(request:HttpServletRequest, response:HttpServletResponse, user:Array<User>) : void
1.1.1: output()
2: input datetime and k for Top-k Popular Places
2.1: processRequest(request:HttpServletRequest, response:HttpServletResponse) : void
alt
datetime != null
2.1.1: retrieveCrowdDensityMethod(datetime String) : Array<List<CrowdDensity>>
<<CREATE>>
2.1.1.1: new Array<List<CrowdDensity>>()
list1 : Array<List<CrowdDensity>>
<<CREATE>>
2.1.1.1.2: CrowdDensity(region String, peoplecount Int)
CrowdDensity
2.1.2: new TreeMap<Integer, Array<List<String>>>()
map : TreeMap<Integer,Array<List<String>>
3: input k, datetime, and mac for Top-k Congestion
3.1: processRequest(request:HttpServletRequest, response:HttpServletResponse) : void
3.1.1: retrieveLocationUpdates(macAddress String, datetime String) : Array<List<LocationUpdate>>
3.1.2: generateUserTrajectories(updates:Array<List<LocationUpdate>>) : TreeMap<String,Integer>
<<CREATE>>
3.1.3: new HashMap<String,CoLocation>()
coLocMap : HashMap<String,CoLocation>
3.1.4: retrieveNearbyMacs(macAddress String, startTime String, endTime String, locationid int) : Array<List<LocationUpdate>>
3.1.5: generateCoLocations(map:HashMap<String,CoLocation>, macAddress String, nearbyUpdates:Array<List<LocationUpdate>>, locationid, windowsize:Int String) : HashMap<String,CoLocation>
3.1.6: groupByCoLocations(map:HashMap<String,CoLocation>) : HashMap<String,Long>
3.1.7: getUserCompanions(map:HashMap<String,Long>) : TreeMap<Long,Array<List<User>>>
3.1.8: output()
4: input k, semantic place, and datetime for Top-k Heat Places
4.1: processRequest(request:HttpServletRequest, response:HttpServletResponse) : void
4.1.1: retrieveMacsAtSemanticPlace(place String, datetime String) : Array<List<String>>
<<CREATE>>
4.1.2: new HashMap<String,Integer>()
hashMap : HashMap<String,Integer>
4.1.3: retrieveUserVisitsToSemanticPlace(mac String, datetime String) : Array<List<String>>
4.1.4: generateUserTrajectories(visits:Array<List<String>>) : TreeMap<Date,String>
4.1.5: mobilityHeatPlaces(map:HashMap<String,Integer>) : TreeMap<Integer,Array<List<String>>>
4.1.6: output()