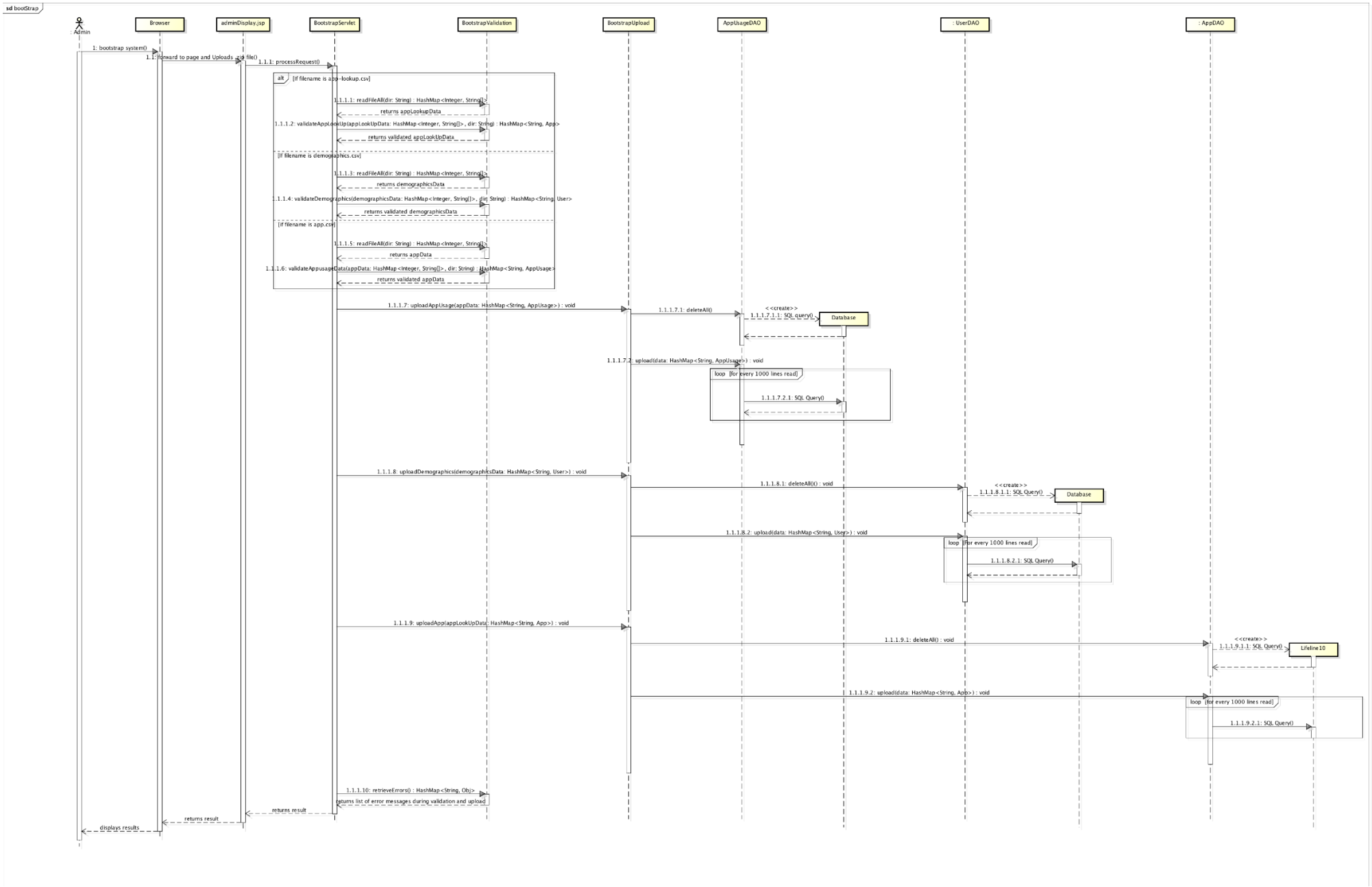
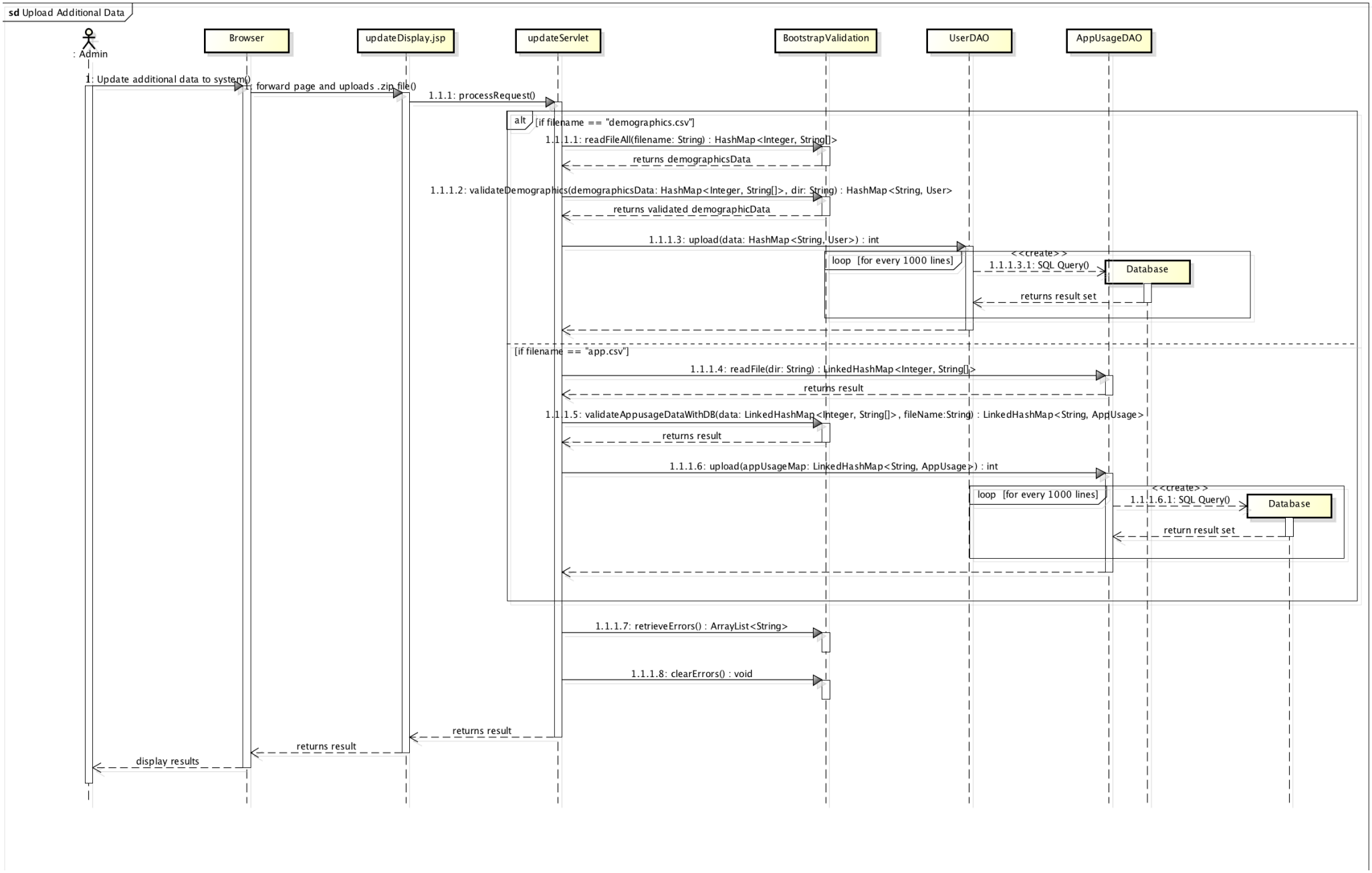
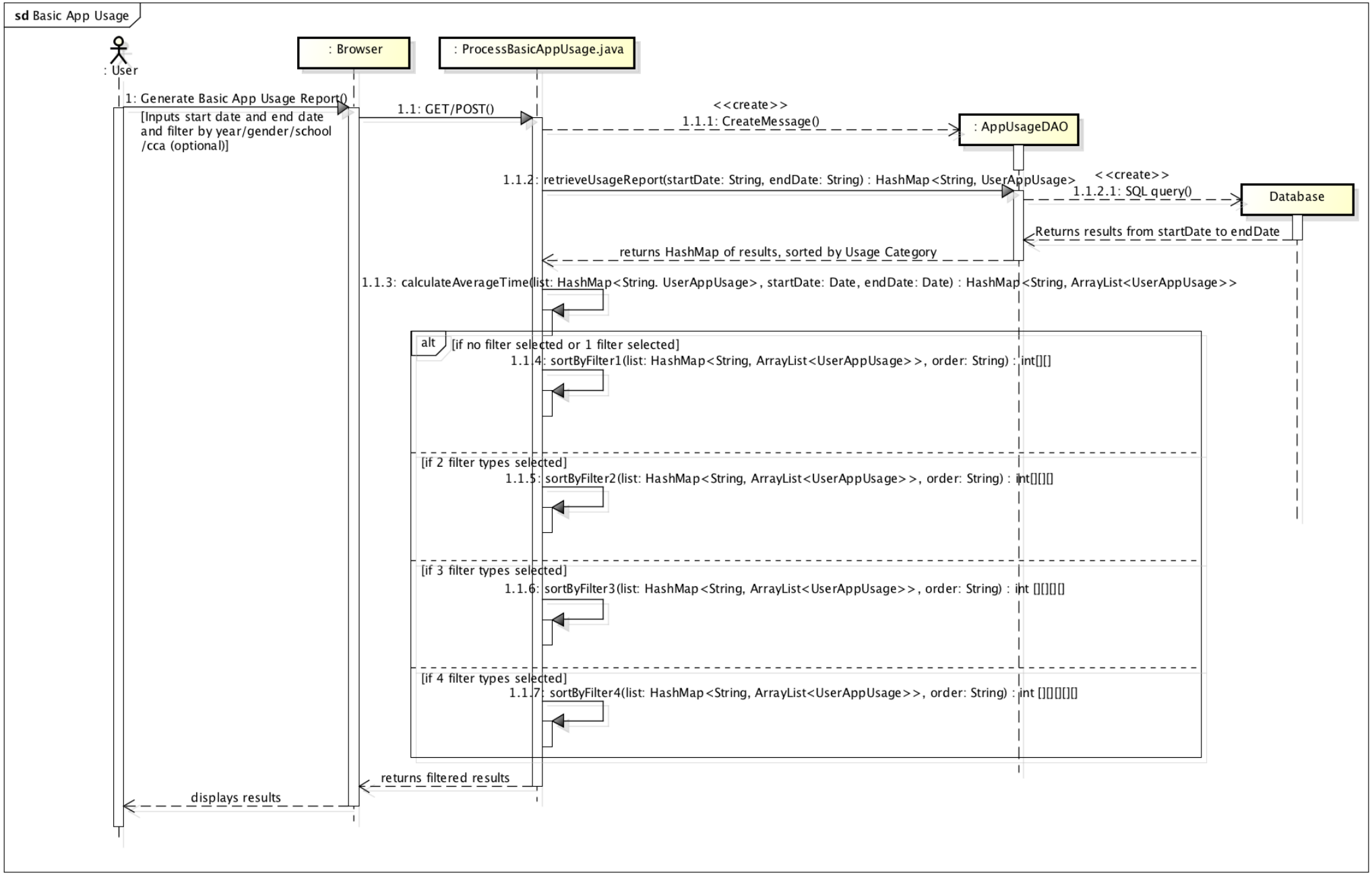
Bootstrap


sd bootStrap
: Admin
Browser
adminDisplay.jsp
BootstrapServlet
BootstrapValidation
BootstrapUpload
AppUsageDAO
: UserDAO
: AppDAO
1: bootstrap system()
1.1: forward to page and Uploads .csv file()
1.1.1: processRequest()
alt [if filename is app-lookup.csv]
1.1.1.1: readFileAll(dir: String) : HashMap<Integer, String[]>
returns appLookupData
1.1.1.2: validateAppLookUp(appLookUpData: HashMap<Integer, String[]>, dir: String) : HashMap<String, App>
returns validated appLookUpData
[if filename is demographics.csv]
1.1.1.3: readFileAll(dir: String) : HashMap<Integer, String[]>
returns demographicsData
1.1.1.4: validateDemographics(demographicsData: HashMap<Integer, String[]>, dir: String) : HashMap<String, User>
returns validated demographicsData
[if filename is app.csv]
1.1.1.5: readFileAll(dir: String) : HashMap<Integer, String[]>
returns appData
1.1.1.6: validateAppusageData(appData: HashMap<Integer, String[]>, dir: String) : HashMap<String, AppUsage>
returns validated appData
1.1.1.7: uploadAppUsage(appData: HashMap<String, AppUsage>) : void
1.1.1.7.1: deleteAll()
<<create>>
1.1.1.7.1.1: SQL query()
Database
1.1.1.7.2: upload(data: HashMap<String, AppUsage>) : void
loop [for every 1000 lines read]
1.1.1.7.2.1: SQL Query()
1.1.1.8: uploadDemographics(demographicsData: HashMap<String, User>) : void
1.1.1.8.1: deleteAll() : void
<<create>>
1.1.1.8.1.1: SQL Query()
Database
1.1.1.8.2: upload(data: HashMap<String, User>) : void
loop [for every 1000 lines read]
1.1.1.8.2.1: SQL Query()
1.1.1.9: uploadApp(appLookUpData: HashMap<String, App>) : void
1.1.1.9.1: deleteAll() : void
<<create>>
1.1.1.9.1.1: SQL Query()
Lifeline 10
1.1.1.9.2: upload(data: HashMap<String, App>) : void
loop [for every 1000 lines read]
1.1.1.9.2.1: SQL Query()
1.1.1.10: retrieveErrors() : HashMap<String, Obj>
returns list of error messages during validation and upload
returns result
returns result
displays results

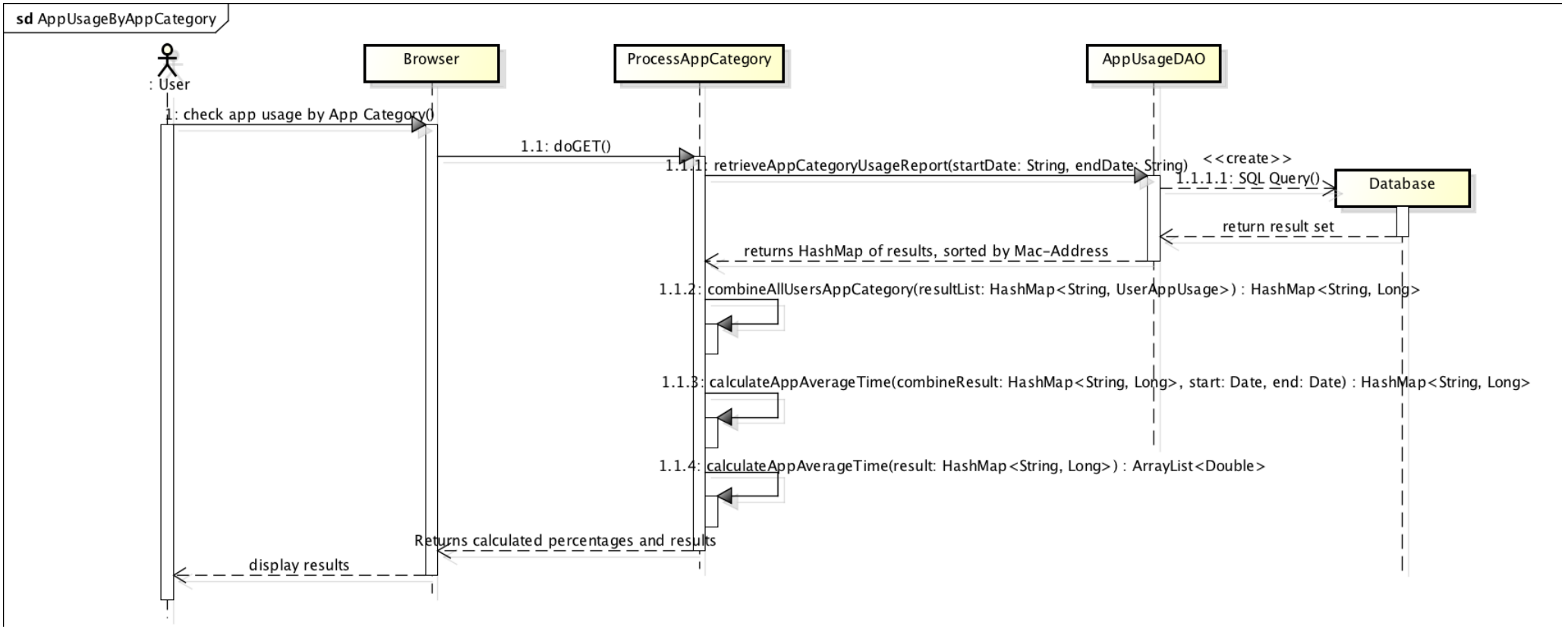
Update additional data



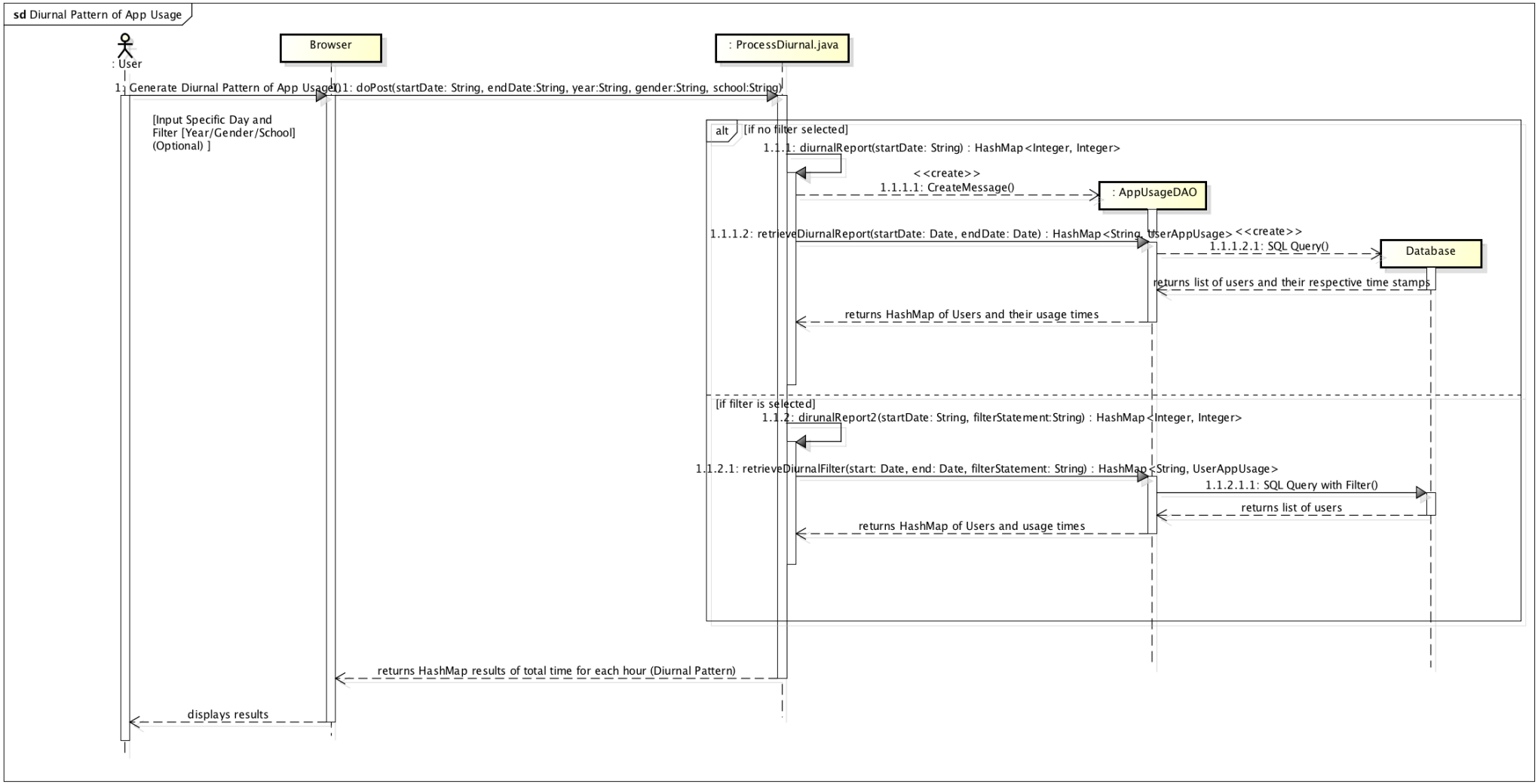
Basic app usage report



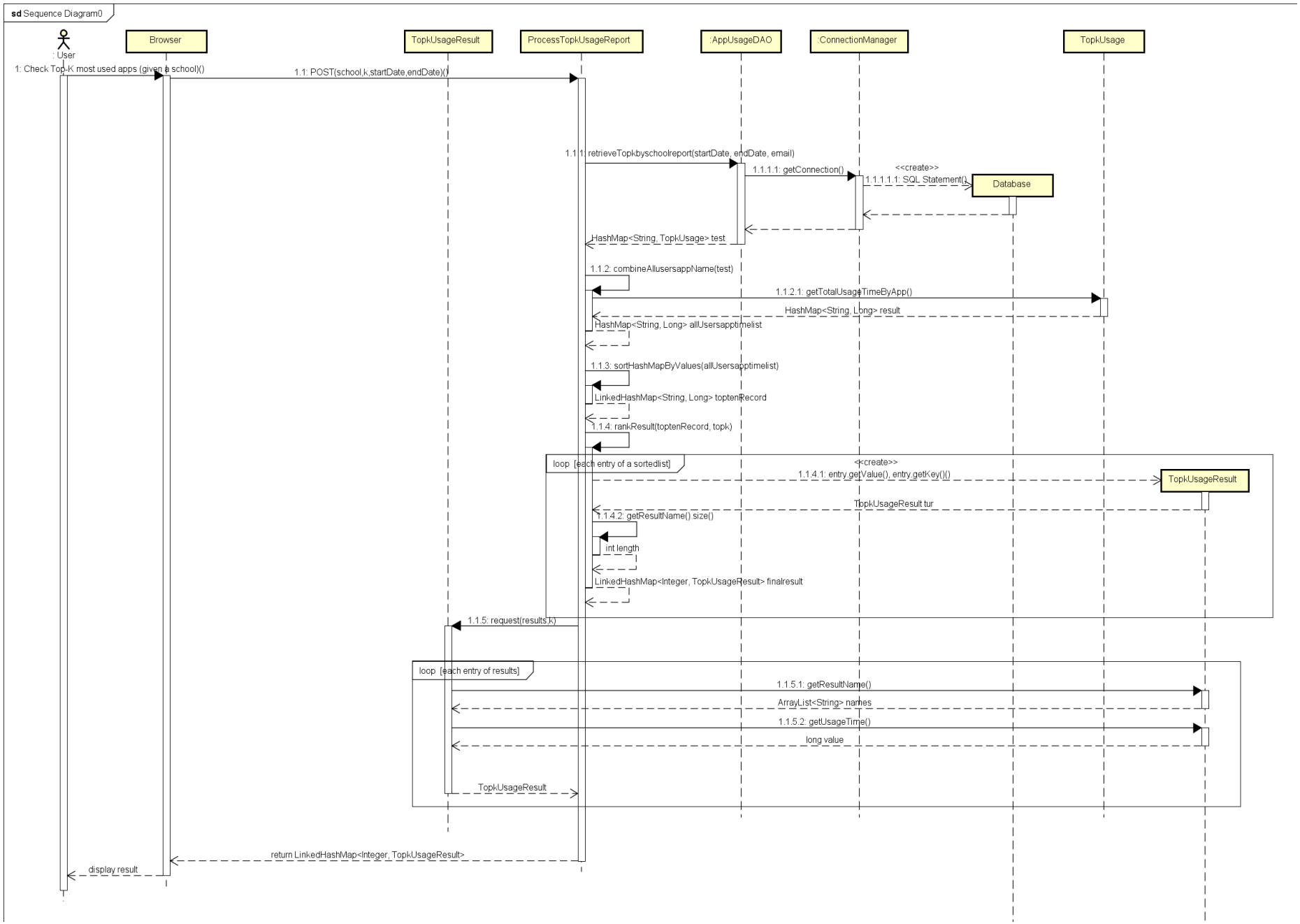
Basic app usage report by app category



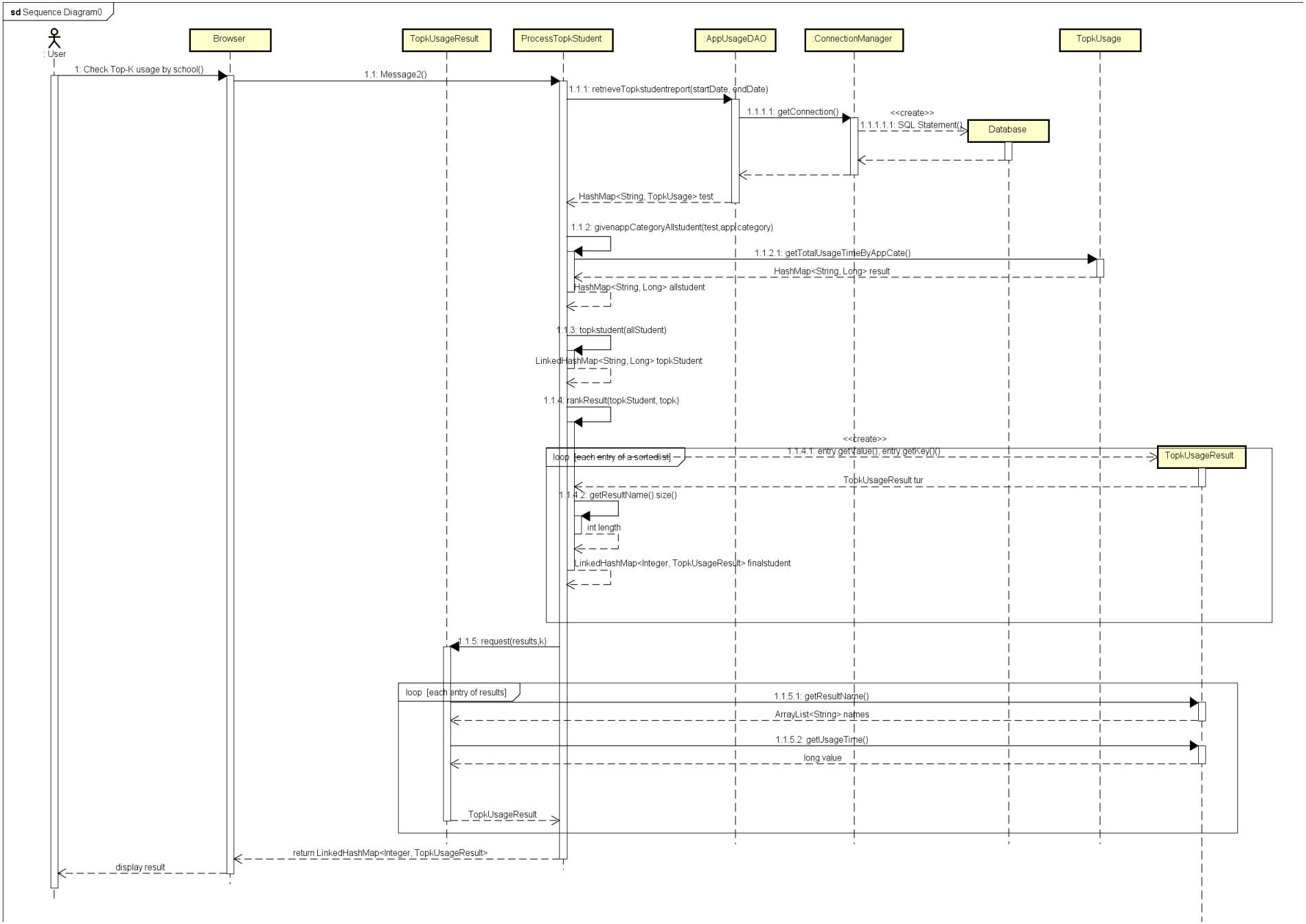
Basic app usage report diurnal pattern



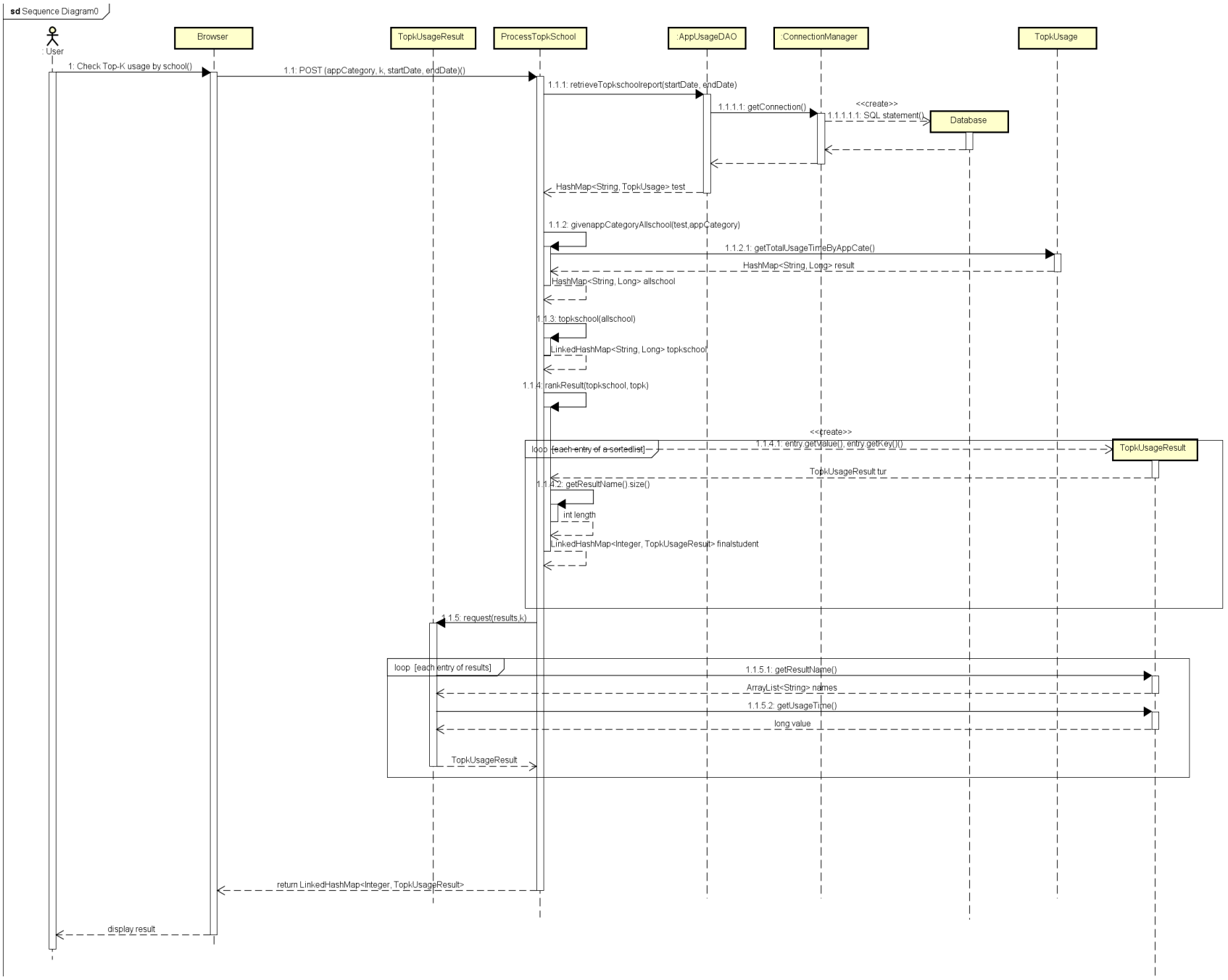
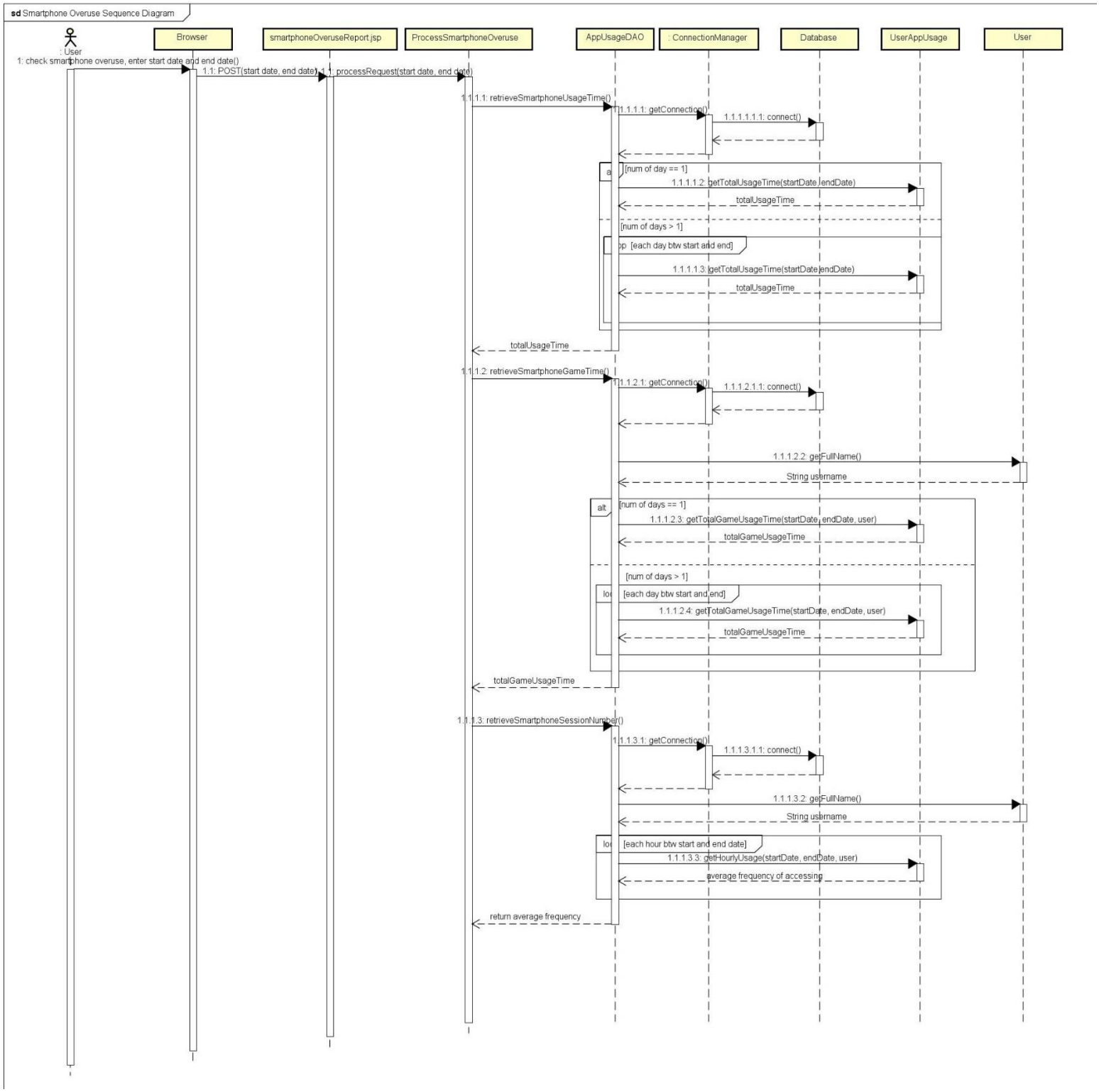
Top-k most used apps given a school



Top-k students with most app usage given an app category



Top-k schools with most app usage given an app category



Smartphone Overusage Report