Copy & paste this into the main doc:

// Get the next user that we can assign to a session based on previous assignments of all users

function nextAssignableStudent(totalAssignments:byRef, session:byVal, force:byVal)

// Abort if we have no users

if totalAssignments.length == 0

return null

end if

// This will be the next assignable user

nextUser = null

// Sort the values of the dictionary totalAssignments by the first item in each subarray

usersSorted = sort(totalAssignments.values, by x[0])

// Loop over the sorted user data

for i = 0 to usersSorted.length

// Get the current user data and user

userData = usersSorted[i]

user = userData[1]

// If they have already been assigned, skip

if userData[0] > 0

continue

end if

// Check if unavailable for this session

unavailabilities = database.unavailability.get(session.id, user.id)

if unavailabilities.length > 0

continue

end if

// They’re good, accept and break

nextUser = userData

break

// Continue loop

next i

end for

// If we haven’t found any user that can be accepted and the force flag is set, select the user that has least assignments so far

if nextUser == null AND force == true

nextUser = usersSorted[0]

end if

// If we have an accepted user, update their assigned stat

if nextUser != null

// Scrap the extra data, just the user itself

nextUser = nextUser[1]

// Update assignment stat

totalAssignments[nextUser.id][0] = totalAssignments[nextUser.id][0] + 1

end if

// Done, so return what is hopefully a user (or null)

return nextUser

end function

// Assign the target number of students to a session

function generateSessionAssignments(session:byRef, totalAssigned:byRef, targetStudents:byVal, force:byVal)

// Target number to assign

target = targetStudents

// Loop until we hit target or run out of students

while target > 0

// Get the next student to assign

student = nextAssignableStudent(totalAssignments, session, force)

// If we have no student, we have no hope, so abort

if student == null

break

end if

// We have a student, so update target

target = target – 1

// Save the target to the database

database.assignments.create(session.id, user.id)

end while

end function

// Assign students to all sessions in the system

function generateAllAssignments(targetStudents:byVal, force:byVal)

// Get all sessions, abort if there are none

sessions = database.sessions.all()

if sessions.length == 0

return

end if

// Get all student users, again, abort if there are none

users = database.users.all(student=true)

if users.length == 0

return

end if

// Delete all old assignments as we’re creating a fresh set of them

assignments = database.assignments.all(removed=null)

for i = 0 to assignments.length

// Set removed attribute to the date/time now

database.assignments.update(assignments[i].id, removed=datetime.now())

// Continue loop

next i

end for

// Create the blank total assigned stat data

totalAssigned = []

for i = 0 to users.length

// Get the user

user = users[i]

// Add to dict with 0 assignments

totalAssigned[user.id] = [0, user]

// Continue loop

next i

end for

// Generate assignments for each session

for i = 0 to sessions.length

generateSessionAssignments(sessions[i], totalAssigned, targetStudents, force)

// Continue loop

next i

end for

end function