

Hw04 – Report

Part 1:

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% room(id, capacity, hours[], occupancy[], equipment, Handicapped access)
room(z23, 25, [8, 9, 10, 11, 12, 13, 14, 15, 16], [occupancy([10,11], cse341), occupancy([15,16], cse102)], smartboard, access).
room(z06, 130, [8, 9, 10, 11, 12, 13, 14, 15, 16], [occupancy([8,9], cse241), occupancy([12,13], cse332)], projector, notAccess).
room(z10, 78, [8, 9, 10, 11, 12, 13, 14, 15, 16], [occupancy([12,13], cse231)], projector, access).
room(z12, 54, [8, 9, 10, 11, 12, 13, 14, 15, 16], [occupancy([13,14], cse343)], _, notAccess).
room(amfi, 300, [8, 9, 10, 11, 12, 13, 14, 15, 16], [], projector, access).

% course(id, instructor, capacity, hours[], room, equipment[], Handicapped access)
course(cse241, ysa, 180, [8, 9], z06, projector, access).
course(cse341, genc, 120, [10, 11], z23, smartboard, access).
course(cse231, habil, 70, [12, 13], z10, projector, notAccess).
course(cse343, habil, 100, [13, 14], z12, projector, access).
course(cse332, ysa, 180, [12, 13], z06, projector, access).
course(cse102, genc, 100, [15, 16], z23, smartboard, notAccess).

% instructor(id, courses[], preference)
instructor(ysa, [cse241, cse332], projector).
instructor(genc, [cse102, cse341], projector).
instructor(habil, [cse231, cse343], lab).

% student(id, courses[], access)
student(1, [cse341, cse231], notAccess).
student(2, [cse102, cse332], access).
student(3, [cse241, cse231], notAccess).
student(4, [cse332, cse341], notAccess).
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?- addCourse(cse501, ysa, 100, [15, 16], amfi, smartboard, access).
Course added succesfully
true.

?- addCourse(cse101, gokturk, 100, [15, 16], amfi, smartboard, access).
false.

?- addStudent(5, [cse102, cse341], notAccess).
false.

?- addStudent(5, [cse102], notAccess).
Student added succesfully
true .

?- findClasses(amfi, Classes).
Classes = [cse241, cse343, cse332].

?- findClasses(z06, Classes).
Classes = [cse231].

?- findRooms(cse241, Rooms).
Rooms = [amfi].

?- findRooms(cse343, Rooms).
Rooms = [amfi].
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?- findAssignments(2, Classes).  
Classes = [cse241, cse341, cse343, cse332, cse501, cse101].  
  
?- canEnroll(2, cse341).  
true.  
  
?- canEnroll(4, cse102).  
true.
```

Part 2:

```
?- connection(canakkale, Y, C).  
Y = erzincan,  
C = 6 ;  
Y = edirne,  
C = 3 ;  
Y = antalya,  
C = 9 ;  
Y = izmir,  
C = 11 ;  
Y = ankara,  
C = 17 ;  
Y = van,  
C = 21 ;  
Y = diyarbakir,  
C = 25 ;  
Y = gaziantep,  
C = 24 ;  
Y = tekirdag,  
C = 4 .
```

```
?- connection(canakkale, erzincan, C).  
C = 6 .  
  
?- connection(canakkale, ankara, C).  
C = 17 .  
  
?- connection(canakkale, istanbul, C).  
false.  
  
?- connection(canakkale, Y, 25).  
Y = diyarbakir .
```