There is no conflict:

```
[1]  ?- ['D:/3_Sınıf_1_Donem_Odevler/CSE341_HW3_1801042627/part1.pl'].
true.

[1]  ?- scheduling_conflict().
false.

[1]  ?-
```

```
roomcapacity(z23,110).
roomcapacity(z10,100).
roomcapacity(z11,50).

% roomoccupancy(class, hour,courseId)
roomoccupancy(z23,14,341).
roomoccupancy(z10,9,341).

roomoccupancy(z23,15,222).

roomoccupancy(z11,8,101).
```

Conflict Exists:

```
[2]  ?- ['D:/3_Sınıf_1_Donem_Odevler/CSE341_HW3_1801042627/part1.pl'].
true.

[2]  ?- scheduling_conflict().
Room: z23 Hour:14 Course 341
Room: z23 Hour:14 Course 222
 Conflict exist
true ;
Room: z23 Hour:14 Course 222
Room: z23 Hour:14 Course 341
 Conflict exist
true ;
false.

[2]  ?-
```

```
% roomoccupancy(class, hour,courseId)
roomoccupancy(z23,14,341).
roomoccupancy(z10,9,341).

roomoccupancy(z23,14,222).

roomoccupancy(z11,8,101).


roomequ(z23,projector).
roomequ(z23,smartboard).

roomequ(z10,smartboard).
% roomequ(z10,access_hc).
roomequ(z10,computer).
roomequ(z10,projector).
```

Only room which satisfies needs of course 341 is Z10 because, Z11's capacity is not enough, z23 does not have computer which is preference of instructor of 341 who is Yakup Genç.

```
[3]  ?- roomsCanBeAssignedToClass(341).
z10 can be assigned to Course 341
true ;
false.
```

Z23 and Z10 satisfies needs of 222, Instructor of 222 ,who is Erdoğan Sevilgen, wants projector and smartbord, those two classes have them and their capacity is enough for the number of students of 222

```
[3]  ?- roomsCanBeAssignedToClass(222).
z23 can be assigned to Course 222
true ;
z10 can be assigned to Course 222
true ;
false.
```

Z11 is only class which is proper for 101 because handicapped student who is Marx takes this course and only class which has needed equipment , which is access_hc, is z11.

```
[3]  ?- roomsCanBeAssignedToClass(101).
z11 can be assigned to Course 101
true ;
false.
```

All courses and all possible rooms:

```
[3]  ?- whichRoomsCanBeAssignedToWhichClasses().
z10 can be assigned to Course 341
true ;
z23 can be assigned to Course 222
true ;
z10 can be assigned to Course 222
true ;
z11 can be assigned to Course 101
true ;
false.
```

The only course which is proper for marx is 101 because it's room is equipped to let handicapped students take the course.

Mustafa has no handicap so he can take all courses. For same course which is covered in different classes there is 2 output. For z11 there is 2 output I could not eliminate the unnecessary one.

```
[3]  ?- checkWhetherStudentCanBeEnrolledToClass(marx,101).
Room: z11 marx can be enrolled to class 101
false.

[3]  ?- checkWhetherStudentCanBeEnrolledToClass(mustafa,X).
Room: z23 mustafa can be enrolled to class 341
Room: z10 mustafa can be enrolled to class 341
Room: z23 mustafa can be enrolled to class 222
Room: z11 mustafa can be enrolled to class 101
Room: z11 mustafa can be enrolled to class 101
false.
```

Ahmet can also take all courses because he is not handicapped.

```
[3]  ?- classesStudentCanBeAssigned(ahmet).
Room: z23 ahmet can be assigned to Course 341
true ;
Room: z10 ahmet can be assigned to Course 341
true ;
Room: z23 ahmet can be assigned to Course 222
true ;
Room: z11 ahmet can be assigned to Course 101
true ;
Room: z11 ahmet can be assigned to Course 101
true.
```

For part2, all adjacent cities can be traveled.

```
[3]  ?- route(istanbul,X,Y).
X = izmir,
Y = 2 ;
X = ankara,
Y = 1 ;
X = rize,
Y = 4.

[3]  ?-
```