

# CSE341 – Programming Languages Homework #4

## Report

I wrote many comments to the my codes files so I didnt write explanation about my codes. I made some tests for my codes and I put the their screenshots to my report.

### **PART1:**

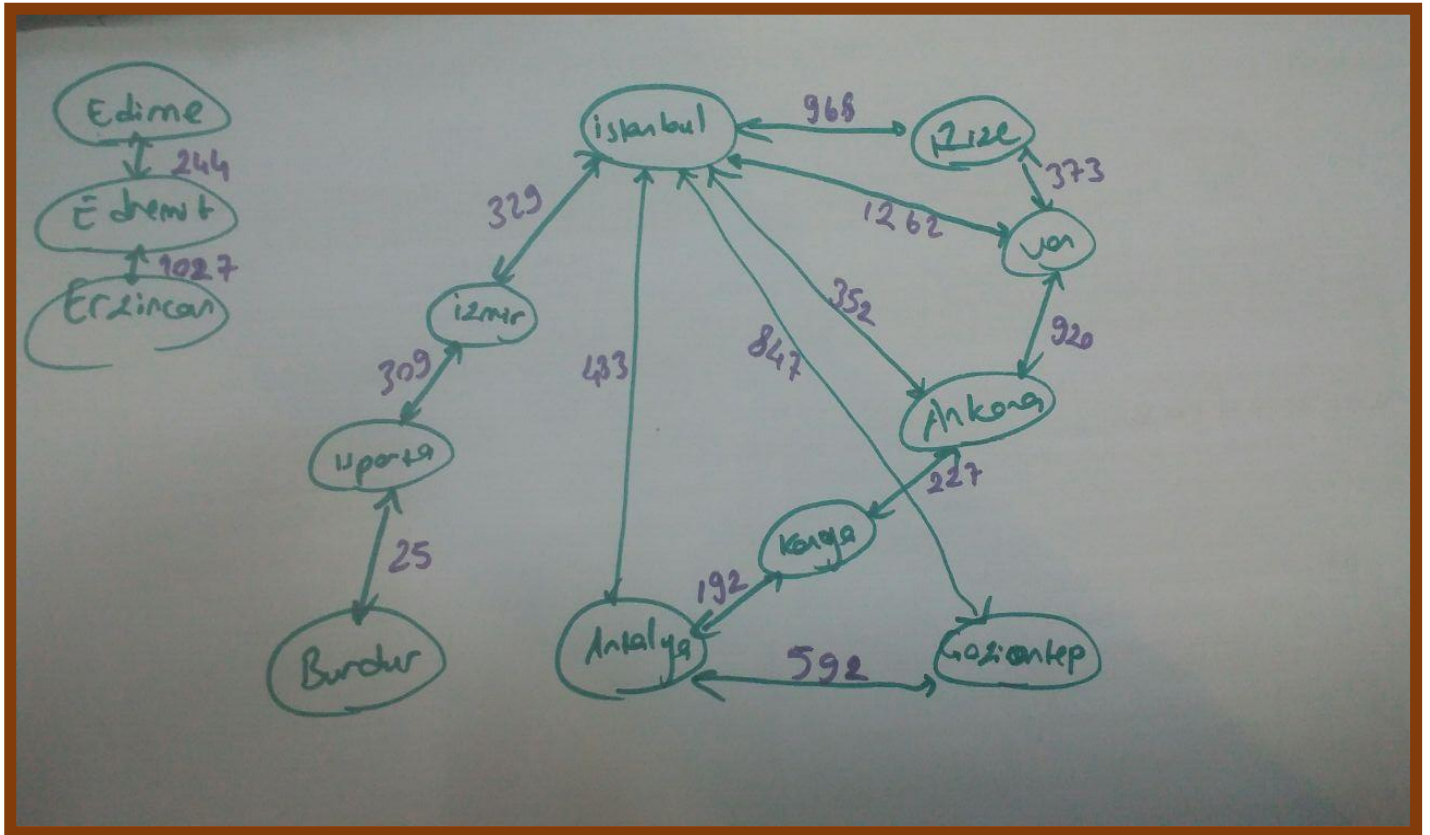
```
% c:/Users/Deger/Desktop/plHW4/part1.pl compiled 0.00 sec, 0 clauses
?- route(edirne,X) .
X = edremit ;
X = ersincan ;
false.

?- route(ersincan,X) .
X = edremit ;
X = edirne ;
false.
```

```
?- route(rise,X) .
X = van ;
X = istanbul ;
X = ankara ;
X = istanbul ;
X = konya ;
X = istanbul ;
X = antalya ;
X = istanbul ;
X = gasiantep ;
X = gasiantep ;
X = izmir ;
X = isparta ;
X = burdur ;
X = istanbul ;
X = izmir ;
X = isparta ;
X = burdur ;
X = gasiantep ;
X = antalya ;
X = izmir ;
X = antalya ;
X = konya ;
X = konya ;
X = gasiantep ;
X = isparta ;
X = burdur ;
X = ankara .
```

```
?- route(burdur,X) .
X = isparta ;
X = izmir ;
X = istanbul ;
X = rise ;
X = van ;
X = ankara ;
X = gasiantep ;
X = antalya ;
X = van ;
X = ankara ;
X = konya ;
X = antalya ;
X = gasiantep ;
X = ankara ;
X = rise .
```

## ***PART2:***



```
?- sroute(edirne,edremit,X) .
Correct to: "route(edirne,edremit,X)"? yes
X = 244 .

?- sroute(edirne,ersincan,X) .
Correct to: "route(edirne,ersincan,X)"? yes
X = 1271 .

?- sroute(ersincan,edirne,X) .
Correct to: "route(ersincan,edirne,X)"? yes
X = 1271 .

?- sroute(rize,konya,X) .
Correct to: "route(rize,konya,X)"? yes
X = 1520 .
```

### PART3:

```
when(102, 10).  
when(108, 12).  
when(341, 14).  
when(455, 16).  
when(452, 17).
```

```
where(102, z23).  
where(108, z11).  
where(341, z06).  
where(455, 207).  
where(452, 207).
```

```
enroll(a, 102).  
enroll(a, 108).  
enroll(b, 102).  
enroll(c, 108).  
enroll(d, 341).  
enroll(e, 455).
```

Tablomun ilk hali.

```
?-  
% c:/Users/Deger/Desktop/pl  
?- schedule(a,P,T).  
P = z23,  
T = 10 ;  
P = z11,  
T = 12 ;  
false.  
  
?- schedule(b,P,T).  
P = z23,  
T = 10 ;  
false.  
  
?- schedule(c,P,T).  
P = z11,  
T = 12 ;  
false.  
  
?- schedule(d,P,T).  
P = z06,  
T = 14 ;  
false.  
  
?- schedule(e,P,T).  
P = 207,  
T = 16 ;  
false.
```

```
?- usage(207,T).  
T = 16 ;  
T = 17.  
  
?- usage(z23,T).  
T = 10.  
  
?- usage(z11,T).  
T = 12.  
  
?- usage(z06,T).  
T = 14.
```

```

when(102, 10).
when(108, 10).
when(341, 14).
when(455, 16).
when(452, 17).

```

```

where(102, z23).
where(108, z11).
where(341, z06).
where(455, z07).
where(452, z07).

```

```

enroll(a, 102).
enroll(a, 108).
enroll(b, 102).
enroll(c, 108).
enroll(d, 341).
enroll(e, 455).

```

```

?- conflicts(102,108).
true.

?- conflicts(455,108).
false.

?- 

```

```

when(102, 10).
when(108, 12).
when(341, 14).
when(455, 16).
when(452, 17).

```

```

where(102, z23).
where(108, z23).
where(341, z06).
where(455, z07).
where(452, z07).

```

```

enroll(a, 102).
enroll(a, 108).
enroll(b, 102).
enroll(c, 108).
enroll(d, 341).
enroll(e, 455).

```

```

% c:/Users/Deger/Desktop/plh
?- conflicts(102,108).
true.

?- conflicts(455,108).
false.

-

```

```

?- 
% c:/Users/Deger/Desktop/plh
?- meet(a,b).
true.

?- meet(b,c).
false.

?- meet(a,c).
true.

?- meet(d,e).
false.

?- 

```

## PART4:

```
% c:/Users/Deger/Desktop/plHW4/part4.pl compile
?- element(2,[1,2,3]).
true .

?- element(7,[1,2,3]).
false.

?- union([1,2],[8,7],[1,2,7,8]).
false.

?- union([1,2],[8,7],[1,2,8,7]).
true .

?- intersect([1,2,9,11],[2,8,7],[2]).
true .

?- intersect([1,2,9,11,11],[2,8,7,11],[2,11]).
false.

?- equivalent([1,2,3],[1,2,3]).
true .

?- equivalent([1,2,3],[2,3,1]).
false.

?- ■
```