

# CSE 341 Programming Languages

## Fall 2019 – HW4

Name: Berke Süslü

Number: 161044076

I used the swipl compiler to compile Prolog files.

- 1) In part1, My predicates will find the all cities connected with the selected city. To avoid cycles, my predicate adds the path in a list.
- 2) In part2, My predicate does the same thing with part1 predicate but this time, it calculates the distance. The returning values are all paths with the selected 2 cities and their distances.
- 3) `Schedule(S,P,T)`: Predicate will find the class places and the class time for the student S.  
`Usage(P,T)`: Predicate will find the time of usage of a classroom.  
`Conflict(X,Y)`: Predicate will find the conflict between two class.  
`Meet(X,Y)`: Predicate will return true if two student will take the same class.
- 4) I assume the user will insert the sets as a list.  
`Element(E,S)`: Predicate returns true if the element E is in the set S.  
`Equivalent(S1,S2)`: Predicate will check if the sets are same or not.  
`Union(S1,S2,S3)`: Predicate will check the set S3 is the union of S1 and S2 or not.  
`Intersect(S1,S2,S3)`: Predicate will check the set S3 is the intersect of S1 and S2 or not.