CS 381: Assignment #5

Due on Thursday, November 14th, 2014

Prof. Grigorescu 12:00pm

Yao Xiao(xiao67)

Problem 1

Set a graph as a list of set which contains one element at the beginning
While the graph has multiple set:
for each set connect it to the minimum wage out side the set
combine this two set together
until the graph contains only one set

Problem 2

1. set the time from (0 48 hr), if it pass the midnight, added it for second day. For example, the sample becomes (18,30), (21,25),(3,14), (13,19)
2. Sort the time interval by the right end of the interval. If the right end is the same, use higher left end will become the second key
3. Iterate through all the elements from (left end, left end+24hr). Greedily find the solution.
The complexity if $O(n^2)$

Problem 3

1.Reverse the edges. 2.Do dfs by the order of the L(u), start with the lowest one and mark every point it travelled min(L(u))
Complexity is O(V+E)