CSE 402 Offline #1 (A1 & B1)

1. Write a prolog program to calculate the sum of all numbers of a list.

```
?- sum([1,5,7,36,24],R).

R = 73
```

2. Implement tower of Hanoi(3-peg) in prolog. Write a predicate **move/4** that will output the steps of solving the problem. **move(N, left, centre, right)** indicates that there are N disks and all the disks need to be moved to right peg from left peg where centre is the auxiliary peg.

```
?- move(3,left,centre,right).

Move disk from left to right
Move disk from left to center
Move disk from right to center
Move disk from left to right
Move disk from center to left
Move disk from center to right
Move disk from left to right
```

3. Write a prolog program to get the largest character from a list of characters.

```
?- findMax([c,a,s,r,e,l],X).

X = s
```

4. Practice list manipulation programs like inserting an element, deleting an element from a list, reversing a list, concatenation of two lists etc.

5. Write a prolog program to implement merge sort.

Submission Deadline: 4/10/2016 (Tuesday) before 2:00 AM (For both A1 and B1)

Instructions

A link in the moodle will be created before the deadline. Each student will submit a zipped folder containing all the .pl files. The name of the folder will the student's roll number.

In case of any plagiarism, the student will get 0 in the offline.

Practice well for the online. Good Luck!!!