**Algorithm:**

1. Let Work and Finish be vectors of length ‘m’ and ‘n’ respectively.  
   Initialize: Work= Available  
   Finish[i]=false; for i=1,2,……,n
2. Find an i such that both  
   a) Finish [i]=false  
   b) Need\_i<=work  
     
   if no such i exists goto step (4)
3. Work=Work + Allocation\_i  
   Finish[i]= true  
   goto step(2)
4. If Finish[i]=true for all i,  
   then the system is in safe state.