**Map-reduce Psedo-code for Matrix Addition :**

Map(key,value):

// A unique key and value ,

// value is (“A” , i, j, a\_ij) or (“B” ,i, j, b\_ij)

// The value has Matrix name, first Index, Second Index, //value in (i,j)

If( value[0]==”A”) :

i = value[1]

j= value[2]

a\_ij=value[3]

emit( (i,j), (“A”,i, j, a\_ij) )

If(value[1]==”B”)

i=value[1]

j=value[2]

b\_ij=value[3]

emit( (i,j), (“B”,i,j,b\_ij) )

reduce(key,values)

// key is (i,j)

// values are (“A”,i,j, a\_ij) and (“B”, i,j,b\_ij)

For each k in keys :

If k exists :

emit( (i,j),i, j, a\_ij+b\_ij)

//here a\_ij+b\_ij is the //result)