TD1 : Programmation Par Contraintes

Exercice 1

1) Variables X = { $X_{1,1}$, ….,$X_{N,N}$}

   Domaines des variables : {0,1} 0 si une case est vide, 1 si une reine est présente

   Contraintes :
   Sum($X_{i,1}$, ….,$X_{i,N}$) =1 forAll i (rows)
   Sum($X_{i,1}$, ….,$X_{i,N}$) = 1 forAll i (columns)
   Sum($X_{i-1,i+1}$,....,$X_{1,i}$) <= 1 forAll 1<i<N (Right Ascending diagonal)
   Sum($X_{i+1,i-1}$,....,$X_{i,1}$) <= 1 forAll 1<i<N(Left Descending diagonal)
   Sum($X_{i-1,i-1}$,....,$X_{j,1}$) <= 1 forAll 1<i<N(Left Ascending diagonal)
   Sum($X_{i+1,i+1}$,....,$X_{k,N}$) <= 1 forAll 1<i<N(Right Descending diagonal)