```
Input: Matrix A, vector B
Output: Steps of making the cholesky factorization
    and the answer to the system

if(determinant(A) is 0)
        return error detrminant equals 0

  n = lenght A
  L,U = matrix of nxn filled of ceros
  for k=0:n
    sum1=0;
    for p=1:k
        sum1=sum1+L(k,p)*U(p,k);
    end for
    L(k,k)*U(k,k)=A(k,k) - sum1;

    for i=k+1:n
        sum2= 0;
        for p=1:k
            suma2= suma2+ L(i,p)*U(p,k);
        end for
        L(i,k) = (A(i,k)-suma2)/U(k,k);
    end for

    for j=k+1:n
        sum3= 0;
        for p = 1:k-1
            sum3=sum3+ L(k,p)*U(p,j);
        end for
        U(k,j) = (A(k,j)- sum3)/L(k,k);
    end for
  end for
  return L,U
end
```