

c)  $A \leftarrow \sigma_{(BACCL = 'II')}$   
 ~~$A_1 \leftarrow A \bowtie (NHAP)$~~   
 ~~$A_1 \leftarrow \pi_{MACH, TENCH} (A \bowtie_{MAXD} NHAP)$~~

d)  $Q \leftarrow NHAP \bowtie_{MACH} CUAHANG \bowtie_{MAXD} XANGDAU$   
 $Q_1 \leftarrow \pi_{MACH, TENCH} \left( \sigma_{\substack{TENXD = 'Xang khong chi Rqt', \\ (Q)}} \right)$   
 $NGAYNHAP = '08/10/2022'$   
 $Q_2 \leftarrow \pi_{MACH, TENCH} \left( \sigma_{\substack{TENXD = 'Xang khong chi', \\ (Q)}} \right)$   
 $RQ_1 \wedge NGAYNHAP = '08/10/2022'$   
 $KQ \leftarrow Q_1 \wedge Q_2$

e)  $Q \leftarrow \pi_{\substack{CUAHANG \bowtie_{MACH} \\ MAXD}} \left( \sigma_{\substack{COUNT(NGAYNHAP) \leq year(NGAYNHAP) - 2022}} \right)$

$KQ \leftarrow Q \bowtie_{MACH} \pi_{TENXD, MAXD} (CUAHANG)$

f)  $Q \leftarrow \pi_{MALX} \left( \sigma_{MABQ = 'III'} (XANGDAU) \right)$

$K \leftarrow NHAP \bowtie_{MACH} CUAHANG \bowtie_{MAXD} XANGDAU \bowtie_{MALX} Q$

$KQ \leftarrow \pi_{MACH, MALX} (K)$



2) DNNK (MADN, TENDN, NGAY TL, DIACHI, SĐT, LOAI, LOAI XANG (MALX, TENLX, MDBQ)  
XANG DAU (MAXD, TENXD, MADN, MALX, GIACOSO, THUEPHI)  
CUAHANG (MACH, TENCH, BACCL, RONGDD, CAOTB, CAONG)  
NHAP (MACH, MAXD, NGAYNHAP, DIHONG, GIANNHAP)

(CUAHANG)  
a)  $A \leftarrow \sigma_{(BACCL = 'II' \wedge CAOTB > 1,5 \wedge CAOTB < 2 \wedge RONGDD > 2)}$

$\rightarrow \pi_{TENCH}(A)$

(XANGDAU)  
b)  $A \leftarrow \sigma_{(TENXD = 'Xang Hong chi R95') \wedge (NHAP)}$   
 $B \leftarrow \sigma_{(NGAYNHAP = '24/10/2021')}$

$AB \leftarrow A \bowtie_{MAXD} R$

$C \leftarrow CUAHANG \bowtie AB$

$\pi_{MACH, TENCH}(C)$