

Bài 1:

1. $\sigma_{\text{PHG} = 4}(\text{NHANVIEN})$
2. $\sigma_{\text{LUONG} > 30000}(\text{NHANVIEN})$
3. $\sigma_{(\text{LUONG} > 25000) \wedge (\text{PHG} = 4)}(\text{NHANVIEN}) \cup \sigma_{(\text{LUONG} > 30000) \wedge (\text{PHG} = 5)}(\text{NHANVIEN})$
4. $\pi_{\text{HONV}, \text{TENLOT}, \text{TENNV}}(\sigma_{\text{DCHI} = \text{'TP.CHM'}}(\text{NHANVIEN}))$
5. $\pi_{\text{HONV}, \text{TENLOT}, \text{TENNV}}(\sigma_{\text{HONV LIKE 'N\%'}}(\text{NHANVIEN}))$
6. $\pi_{\text{NGSINH}, \text{DCHI}}(\sigma_{(\text{HONV} = \text{'Dinh'}) \wedge (\text{TENLOT} = \text{'Ba'}) \wedge (\text{TENNV} = \text{'Tien'})}(\text{NHANVIEN}))$
7. $R1 \leftarrow \text{PHONGBAN} \bowtie \text{DIADIEM_PHG}$
 $\pi_{\text{TENPHG}, \text{DIADIEM}}(R1)$
8. $R1 \leftarrow \text{PHONGBAN} \bowtie \text{TRPHG} = \text{MANV} \text{NHANVIEN}$
 $\pi_{\text{TENNV}}(R1)$
9. $R1 \leftarrow \text{PHONGBAN} \bowtie \text{MAPHG} = \text{PHG} \text{NHANVIEN}$
 $\pi_{\text{TENNV}, \text{DCHI}}(\sigma_{\text{TENPHG} = \text{'Nghiên cứu'}}(R1))$
10. $R1 \leftarrow \pi_{\text{TENDA}, \text{TENPHG}, \text{TRPHG}, \text{NG_NHANCHUC}}(\text{PHONGBAN} \bowtie \text{MAPHG} = \text{PHONG} \text{DEAN})$
 $R2 \leftarrow R1 \bowtie \text{TRPHG} = \text{MANV} \text{NHANVIEN}$
 $\pi_{\text{TENDA}, \text{TENPHG}, \text{NG_NHANCHUC}, \text{HONV}, \text{TENNV}}(R2)$
11. $R1_{\text{GIOITINH}, \text{TENTN}, \text{MA_NVEN}} \leftarrow \pi_{\text{PHAI}, \text{TENTN}, \text{MA_NVEN}}(\text{THANNHAN})$
 $R2 \leftarrow \text{NHANVIEN} \bowtie \text{MANV} = \text{MA_NVEN} R1$
 $\pi_{\text{TENNV}, \text{TENTN}}(\sigma_{\text{PHAI} = \text{'Nữ'}}(R2))$
- 12.
- 13.
- 14.
- 15.

Bài 2:

1. $R1 \leftarrow \text{KHANANG} \bowtie \text{NHANVIEN}$
 $\pi_{\text{MANV}, \text{TEN}, \text{DCHI}, \text{DTHOAI}}(\sigma_{\text{MALOAI} = \text{'B747'}}(R1))$
2. $R1 \leftarrow \text{PHANCONG} \bowtie \text{CHUYENBAY}$
 $R2 \leftarrow \pi_{\text{MANV}}(\sigma_{\text{SBDI} = \text{'SLC'} \wedge \text{MACB} = 10}(R1))$
 $\pi_{\text{TEN}}(R2 \bowtie \text{NHANVIEN})$
3. $R1 \leftarrow \text{LICHBAY} \bowtie \text{CHUYENBAY}$
 $\pi_{\text{MALOAI}, \text{SOHIEU}}(\sigma_{\text{SBDI} = \text{'MIA'}}(R1))$
4. $R1 \leftarrow \text{KHACHHANG} \bowtie \text{DATCHO}$
 $\pi_{\text{MACB}, \text{NGAYDI}, \text{TEN}, \text{DCHI}, \text{DTHOAI}}(\sigma_{\text{SBDI} = \text{'MIA'}}(R1))$

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5 . R1 ← PHANCONG ► ◀ NHANVIEN
    R2 <- R1 ► ◀ CHUYENBAY
     $\pi_{\text{MACB, NGAYDI, TEN, DCHI, DTHOAI}}(\text{R2})$ 
6 . R1 <-  $\pi_{\text{MACB}}(\sigma_{\text{SBDEN='ORD'}}(\text{CHUYENBAY}))$ 
    R2 <-  $\pi_{\text{MANV, MACB}}(\text{R1} \blacktriangleright \blacktriangleleft \text{PHANCONG})$ 
    R3 <-  $(\text{R2} \blacktriangleright \blacktriangleleft \text{NHANVIEN})$ 
     $\pi_{\text{TEN, MACB, NGAYDI, MANV, TEN}}(\text{R3})$ 
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