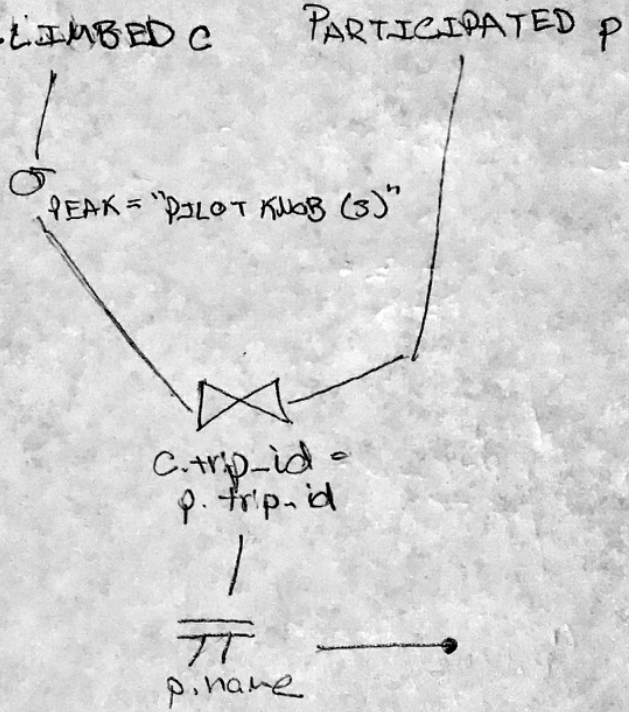
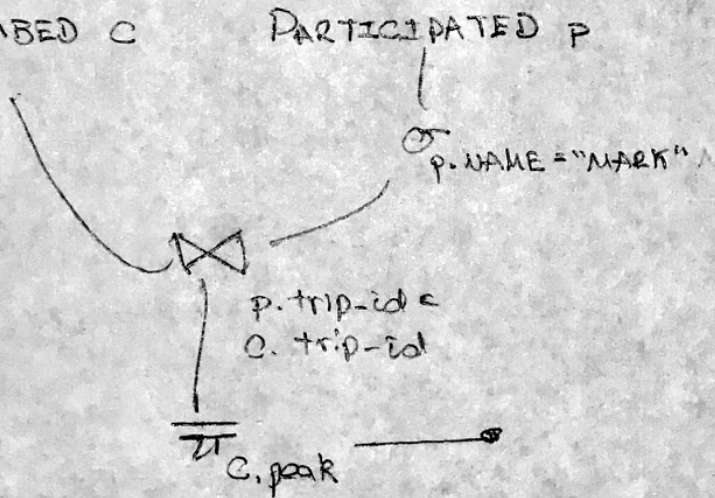
John Hodson
CIS4301
Assignment 3

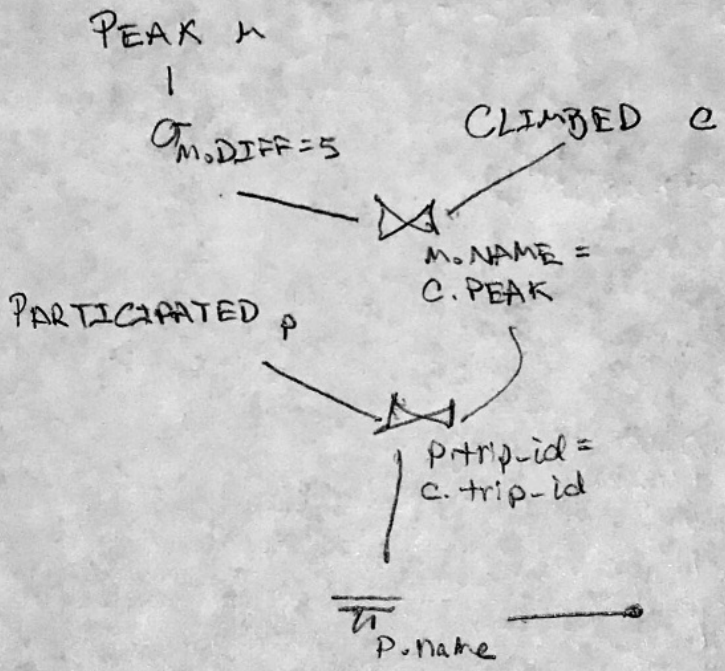
1.)



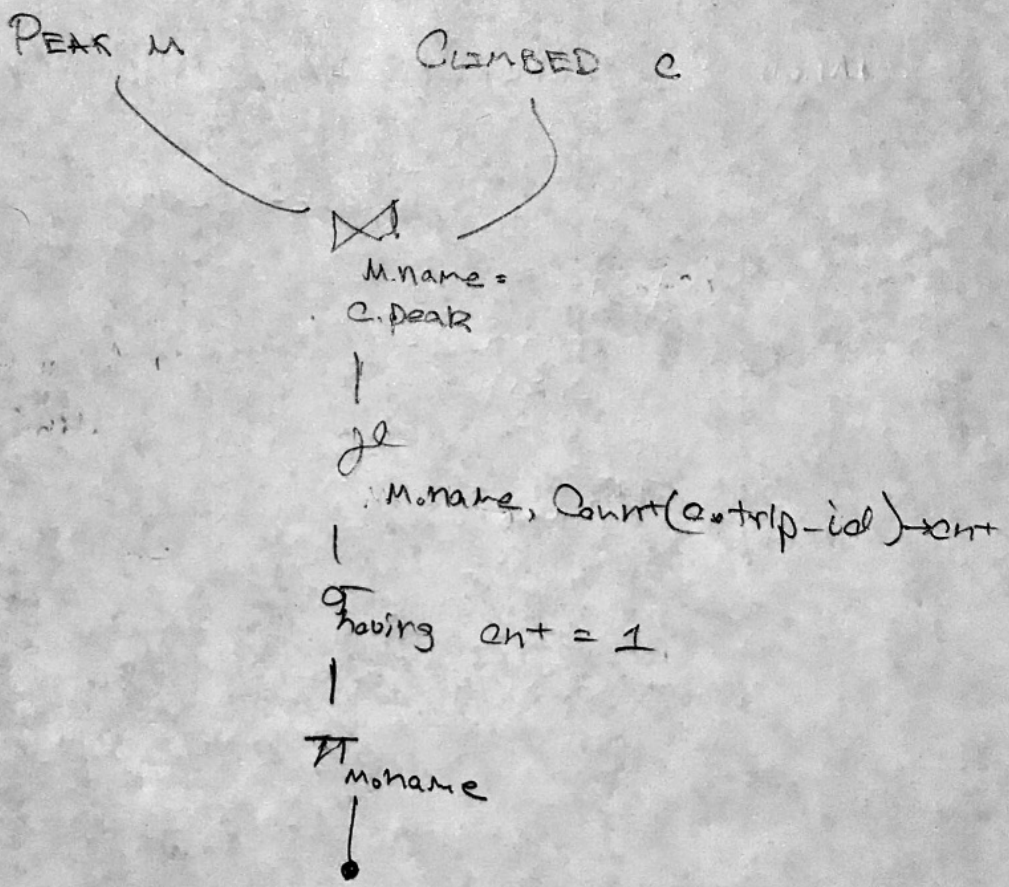
2.)



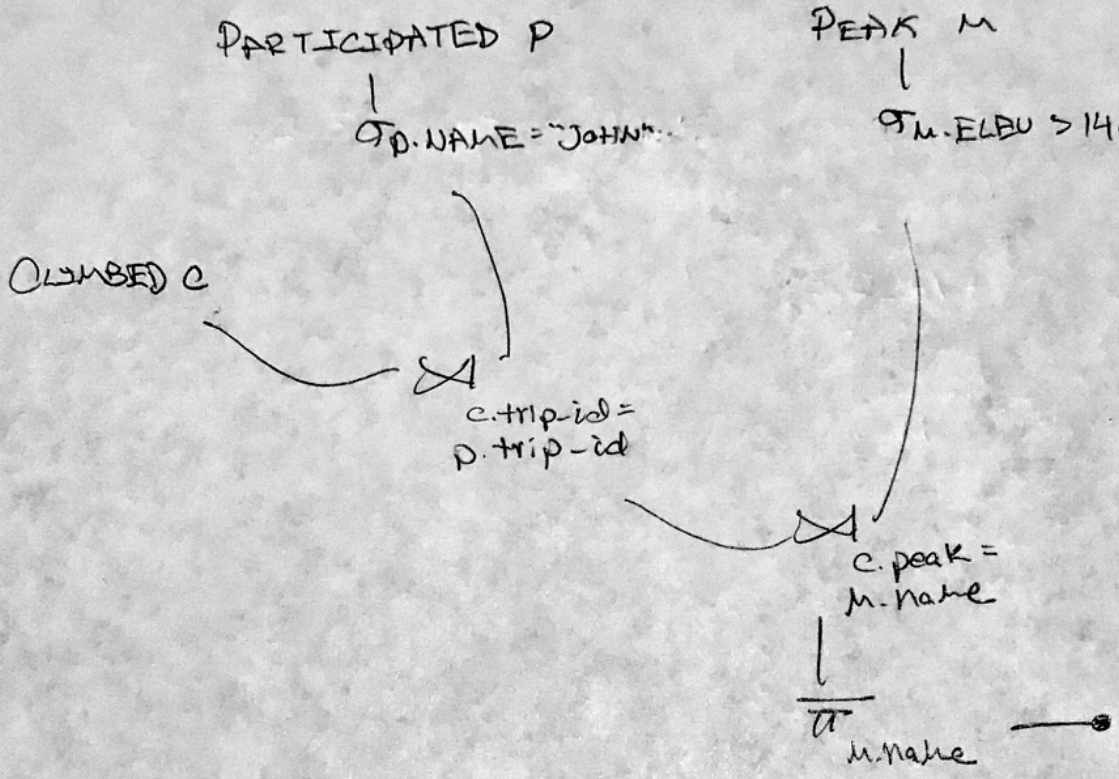
3.)


PEAK M
σ M.DIFF=5
CLIMBED C
M.NAME = C.PEAK
PARTICIPATED P
P.trip_id = C.trip_id
π P.name

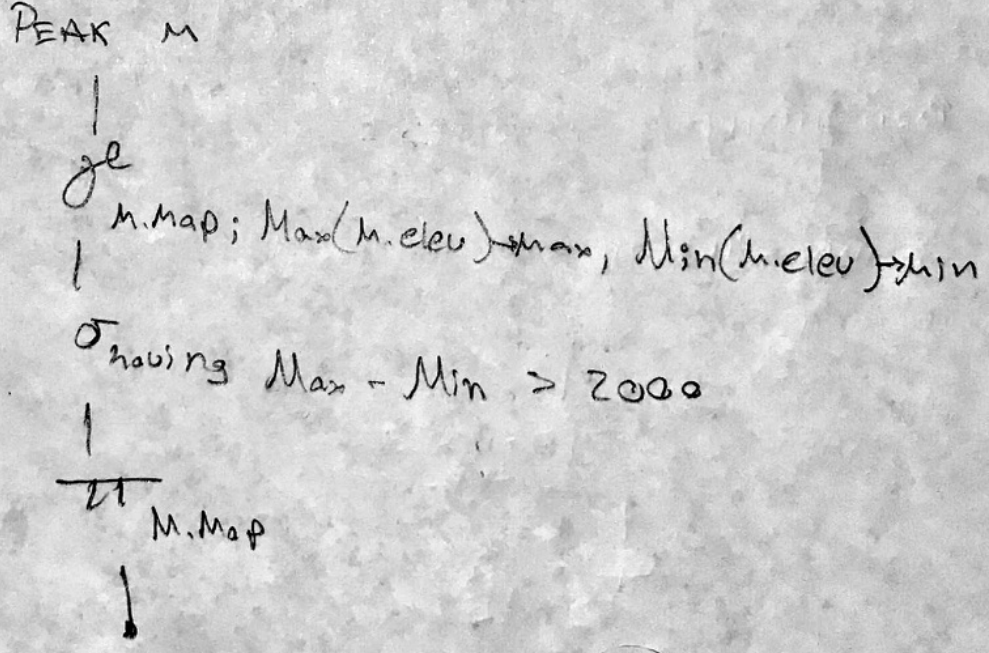
4.)


PEAK M
CLIMBED C
M.name = C.peak
γ M.name, Count(C.trip_id)→cnt
σ having cnt = 1
π Mname

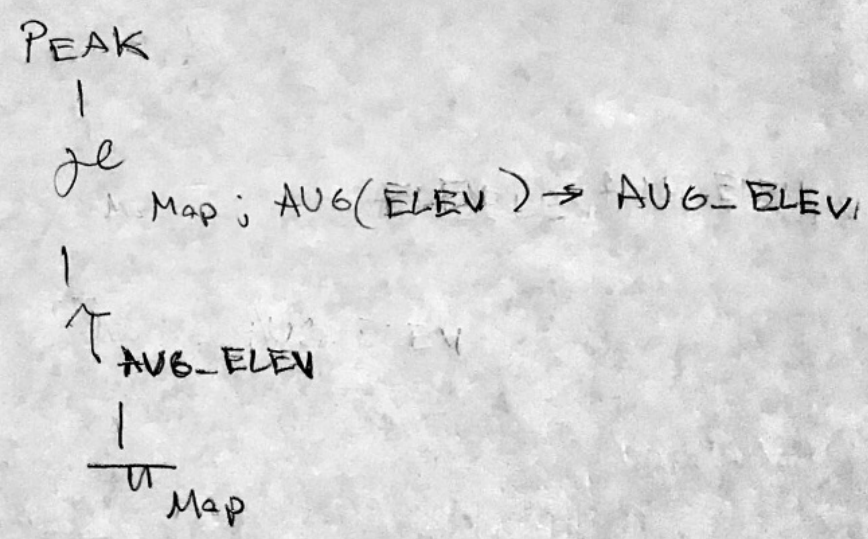
5.)


PARTICIPATED P
PEAK M
σ P.NAME = "JOHN"
σ M.ELEV > 14000
CLIMBED C
⋈
c.trip_id = p.trip_id
⋈
c.peak = m.name
π
m.name

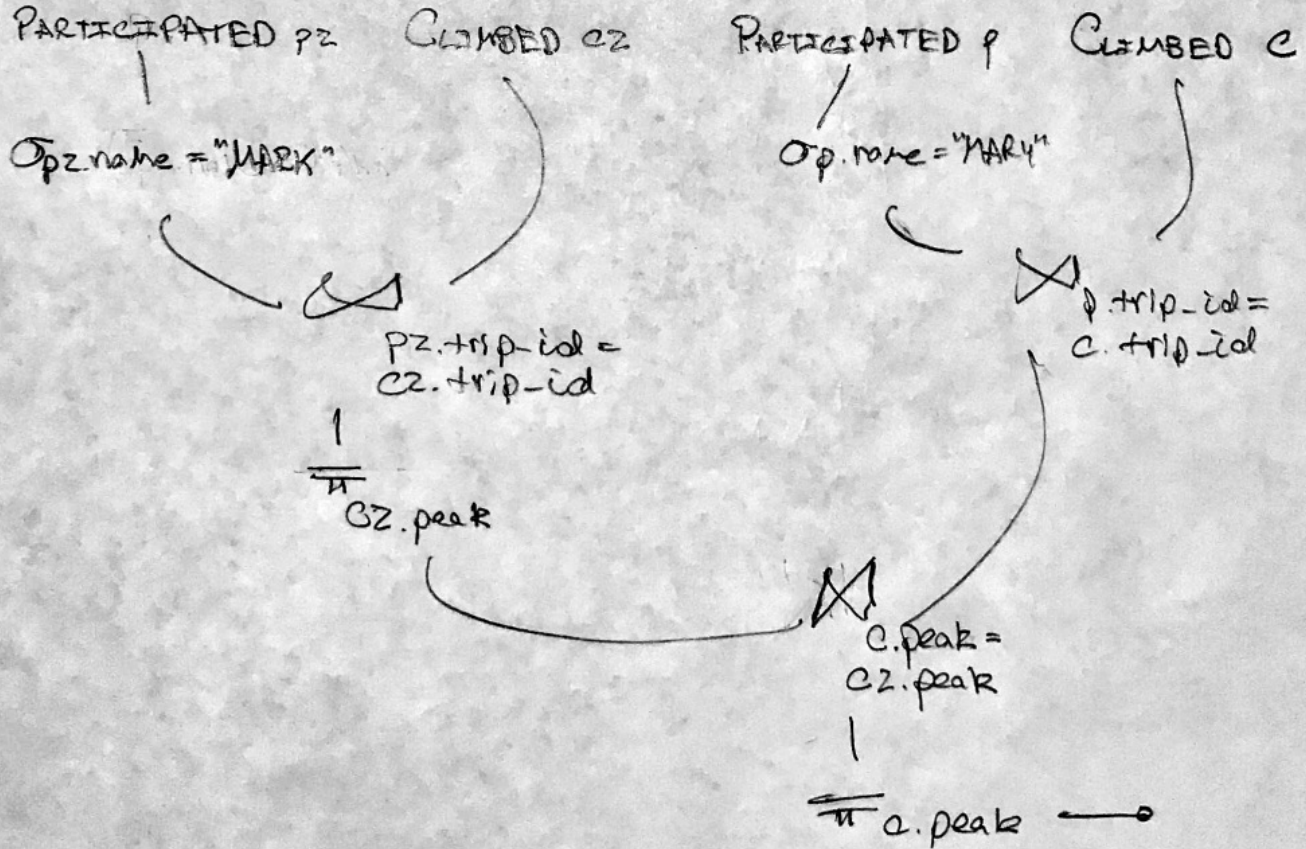
6.)


PEAK M
γ
m.map; Max(m.elev)→max, Min(m.elev)→min
σ having Max - Min > 2000
π
M.Map

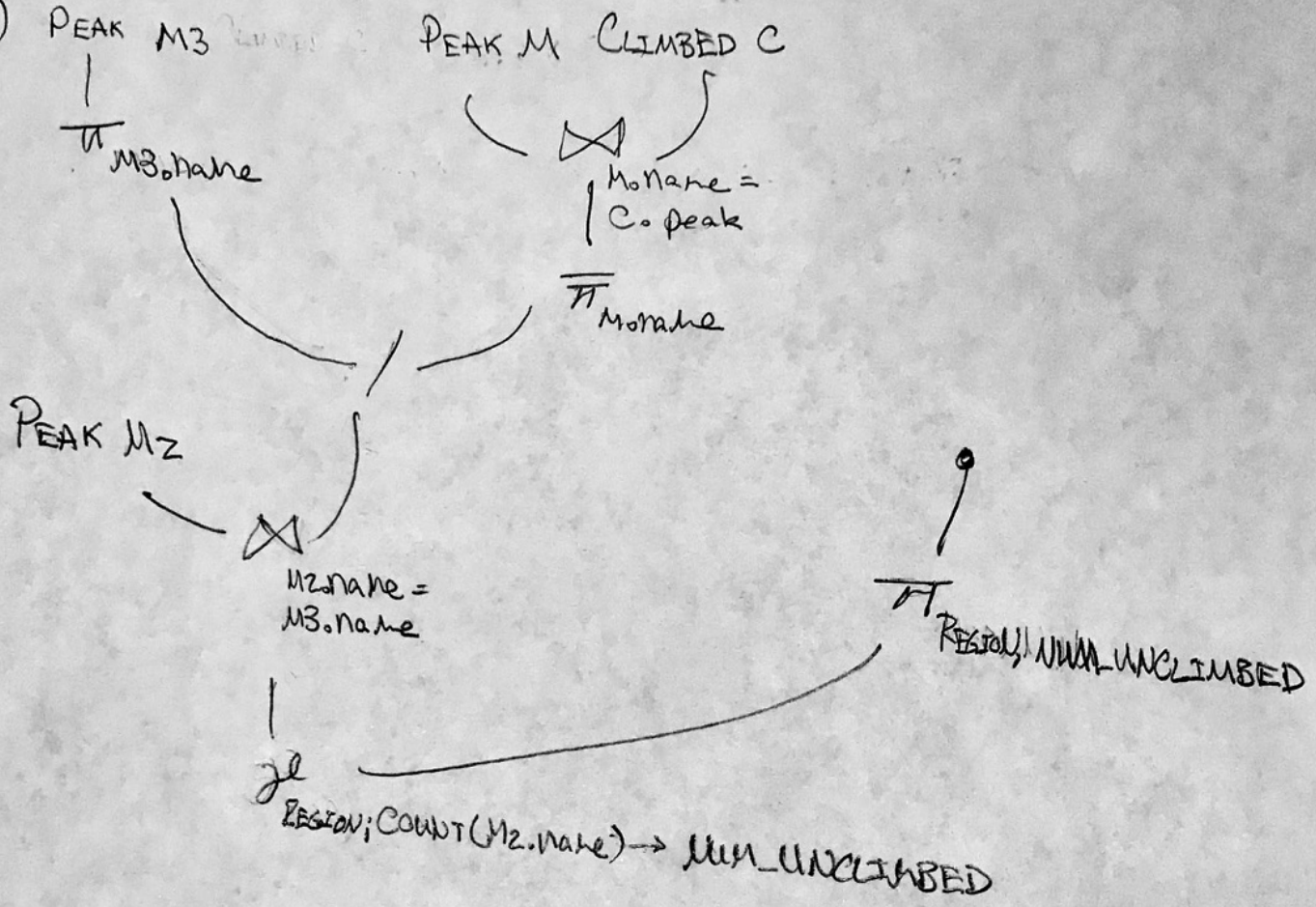
7.)


PEAK
ρ
Map ; AVG(ELEV) → AVG_ELEV
AVG_ELEV
π
Map

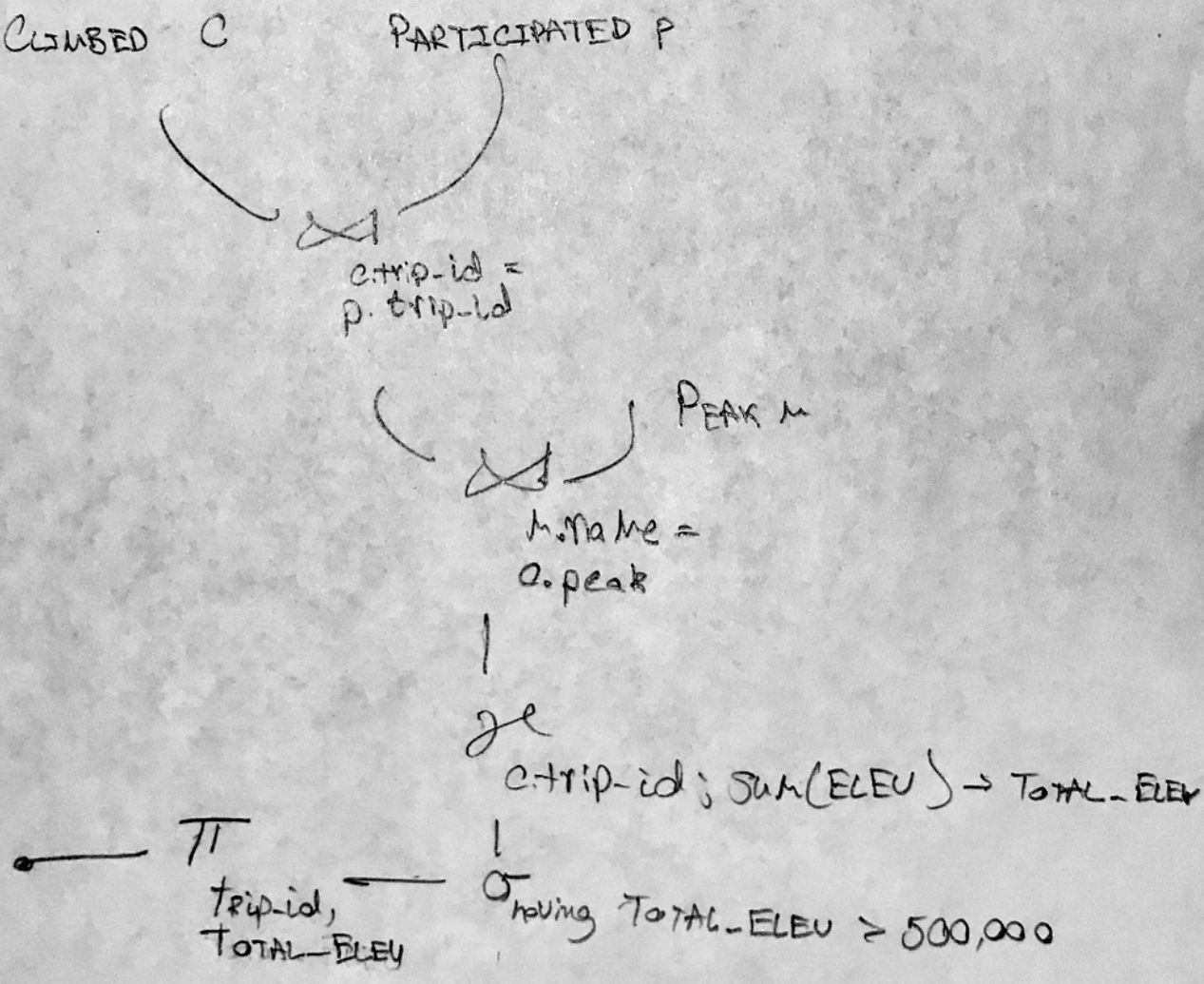
8.)


PARTICIPATED pz
CLIMBED cz
PARTICIPATED p
CLIMBED c
σpz.name = "MARK"
σp.name = "MARY"
pz.trip_id = cz.trip_id
p.trip_id = c.trip_id
π
cz.peak
c.peak = cz.peak
π
c.peak

9.)


PEAK M3
PEAK M
CLIMBED C
π M3.name
M.name = C.peak
π M.name
PEAK M2
M2.name = M3.name
π REGION, NUM_UNCLIMBED
REGION; COUNT(M2.name) → NUM_UNCLIMBED

10.)


CLIMBED C
PARTICIPATED P
c.trip-id = p.trip-id
PEAK M
M.name = c.peak
c.trip-id; SUM(ELEV) → TOTAL_ELEV
π
trip-id, TOTAL_ELEV
σ having TOTAL_ELEV ≥ 500,000