VERTICAL FRAGMENTATION

$EMP (EMPNUM, NAME, SAL, TAX, MGRNUM, DEPTNUM)$

$EMP_1 = PJ_{EMPNUM, NAME, MGRNUM, DEPTNUM} EMP$

$EMP_2 = PJ_{EMPNUM, SAL, TAX} EMP$

$EMP = EMP_1 JN_{EMPNUM = EMPNUM} EMP_2$.

FRAGMENT DISJOINTNESS

$EMP_1 = PJ_{EMPNUM, NAME, MGRNUM, DEPTNUM} EMP$

$EMP_2 = PJ_{EMPNUM, NAME, SAL, TAX} EMP$

$EMP = EMP_1 JN_{EMPNUM = EMPNUM} PJ_{EMPNUM, SAL, TAX} EMP_2$

MIXED FRAGMENTATION

$EMP_1 = SL_{DEPTNUM \leq 10} PJ_{EMPNUM, NAME, MGRNUM, DEPTNUM} EMP$

$EMP_2 = SL_{10 < DEPTNUM <= 20} PJ_{EMPNUM, NAME, MGRNUM, DEPTNUM} EMP$

$EMP_3 = SL_{DEPTNUM > 20} PJ_{EMPNUM, NAME, MGRNUM, DEPTNUM} EMP$

$EMP_4 = PJ_{EMPNUM, NAME, SAL, TAX, EMP}$

$EMP = UN (EMP_1, EMP_2, EMP_3) JN_{EMPNUM = EMPNUM}$
$PJ_{EMPNUM, SAL, TAX} EMP_4$