**ISA TO RELATIONAL – FLATTEN APPROACH**

**STAFF\_MEMBER:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| STAFF ID (PK) | FNAME | MNAME | LNAME | NATIONAL ID | DEPARTMENT  NUMBER (FK) | PROFESSOR | TEACHING \_ASSISTANT |

**STUDENT**:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| STUDENT ID (PK) | NATIONAL ID | FNAME | MNAME | LNAME | ADDRESS |

**DEPARTMENT**:

|  |  |  |  |
| --- | --- | --- | --- |
| DEPARTMENT NUMBER (PK) | NAME | LOCATION | STAFF\_ID (FK)  (FOR MANAGER) |

**COURSE**:

|  |  |  |  |
| --- | --- | --- | --- |
| COURSE ID (PK) | NAME | GRADE | DEPARTMENT NUMBER (FK) |

**ENROLLMENT**:

|  |  |  |  |
| --- | --- | --- | --- |
| COURSE ID (FK) | STUDENT ID (FK) | YEARLY PERFORMANCE GRADE | FINAL EXAM GRADE |

\*primary key of this table is the combination of the first 2 cells

**TEACHING**:

|  |  |  |  |
| --- | --- | --- | --- |
| STAFF ID (FK)  [FROM STAFF MEMBER RELATION WHERE PROFFESOR IS TRUE] | STAFF ID (FK)  [FROM STAFF MEMBER RELATION WHERE TEACHING ASSISTANT IS TRUE] | COURSE ID (FK) | GRADING SYSTEM |

\*primary key of this table is the combination of the first 3 cells

**RECOMMENDED\_MATERIALS:**

|  |  |
| --- | --- |
| { STAFF ID, STAFF ID, COURSE ID}  PRMARY KEY OF ‘TEACHING’ | RECOMMENDED MATERIAL |

\*primary key of this table is the combination of the both the cells

**RECOMMENDED\_MATERIALS:**

|  |  |
| --- | --- |
| { STAFF ID, STAFF ID, COURSE ID}  PRMARY KEY OF ‘TEACHING’ | RECOMMENDED MATERIAL |

\*primary key of this table is the combination of the both the cells