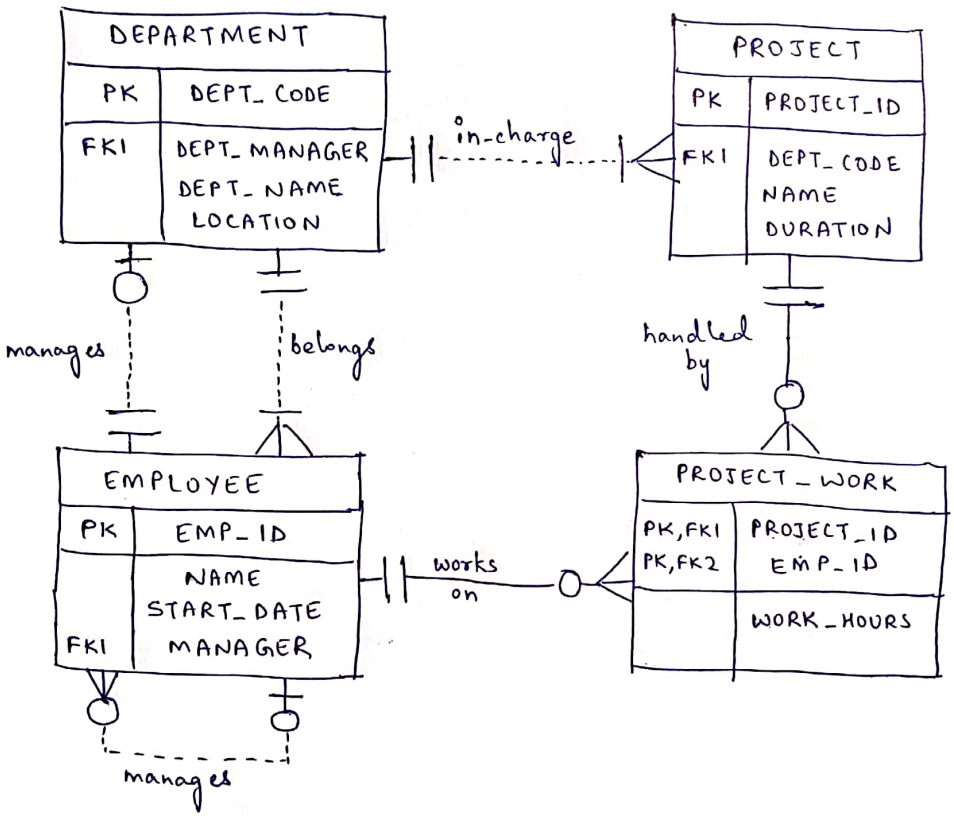
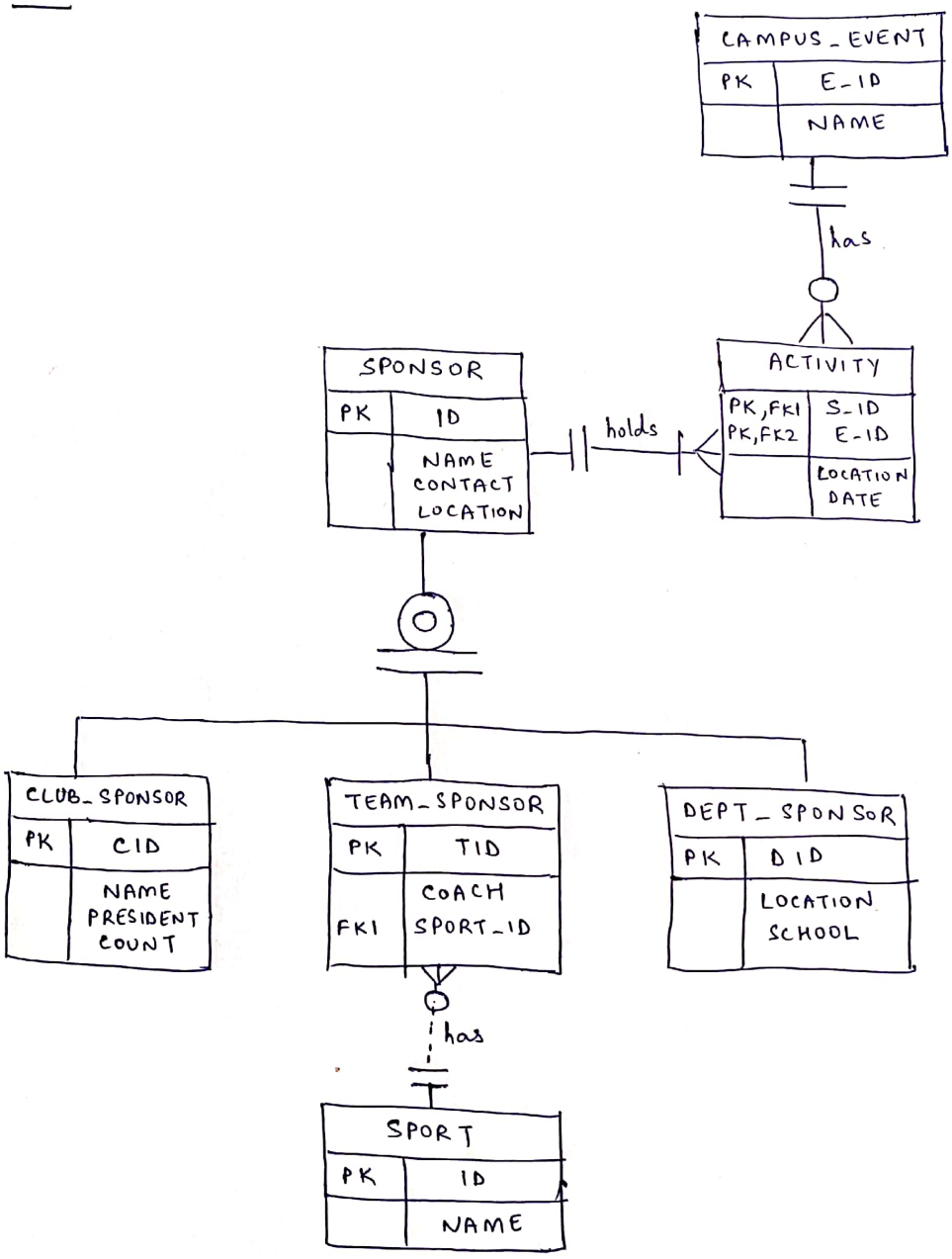
Q1 :-

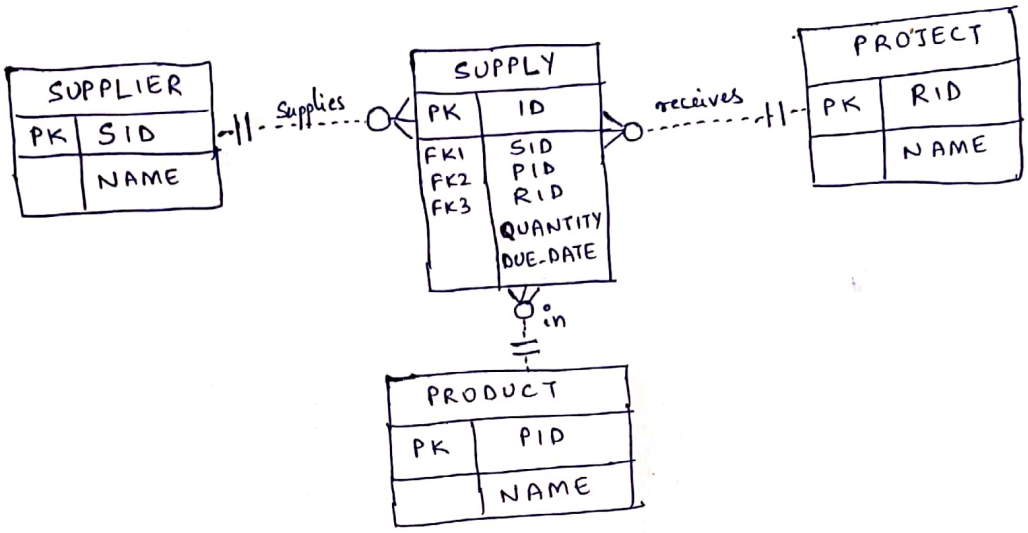

DEPARTMENT
PK
DEPT_CODE
FK1
DEPT_MANAGER
DEPT_NAME
LOCATION
in-charge
PROJECT
PK
PROJECT_ID
FK1
DEPT_CODE
NAME
DURATION
manages
belongs
handled by
EMPLOYEE
PK
EMP_ID
NAME
START_DATE
FK1
MANAGER
works on
PROJECT_WORK
PK,FK1
PROJECT_ID
PK,FK2
EMP_ID
WORK_HOURS
manages

Q2 :

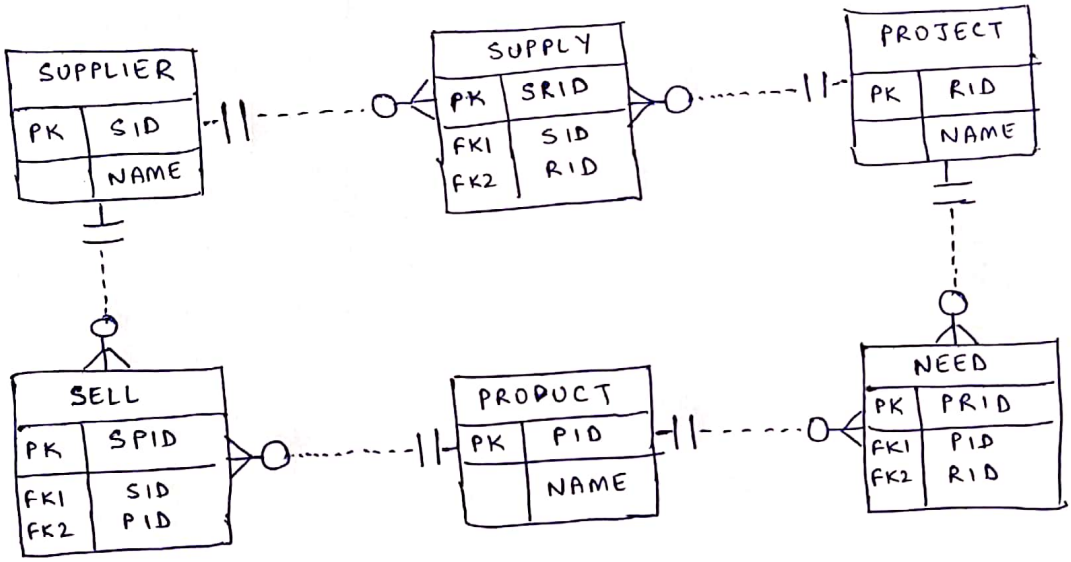

CAMPUS_EVENT
PK
E_ID
NAME
has
SPONSOR
PK
ID
NAME
CONTACT
LOCATION
holds
ACTIVITY
PK,FK1
PK,FK2
S_ID
E_ID
LOCATION
DATE
CLUB_SPONSOR
PK
CID
NAME
PRESIDENT
COUNT
TEAM_SPONSOR
PK
TID
COACH
FK1
SPORT_ID
DEPT_SPONSOR
PK
DID
LOCATION
SCHOOL
has
SPORT
PK
ID
NAME

Q3 :-

a)

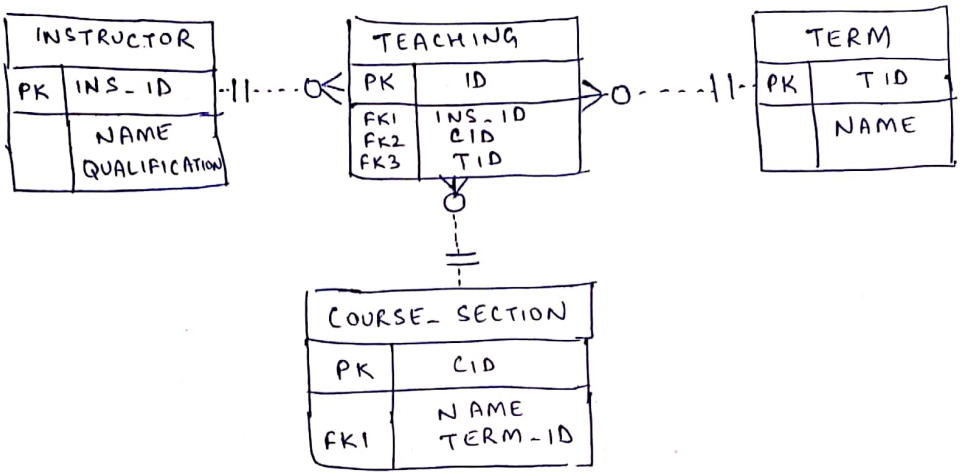


b)

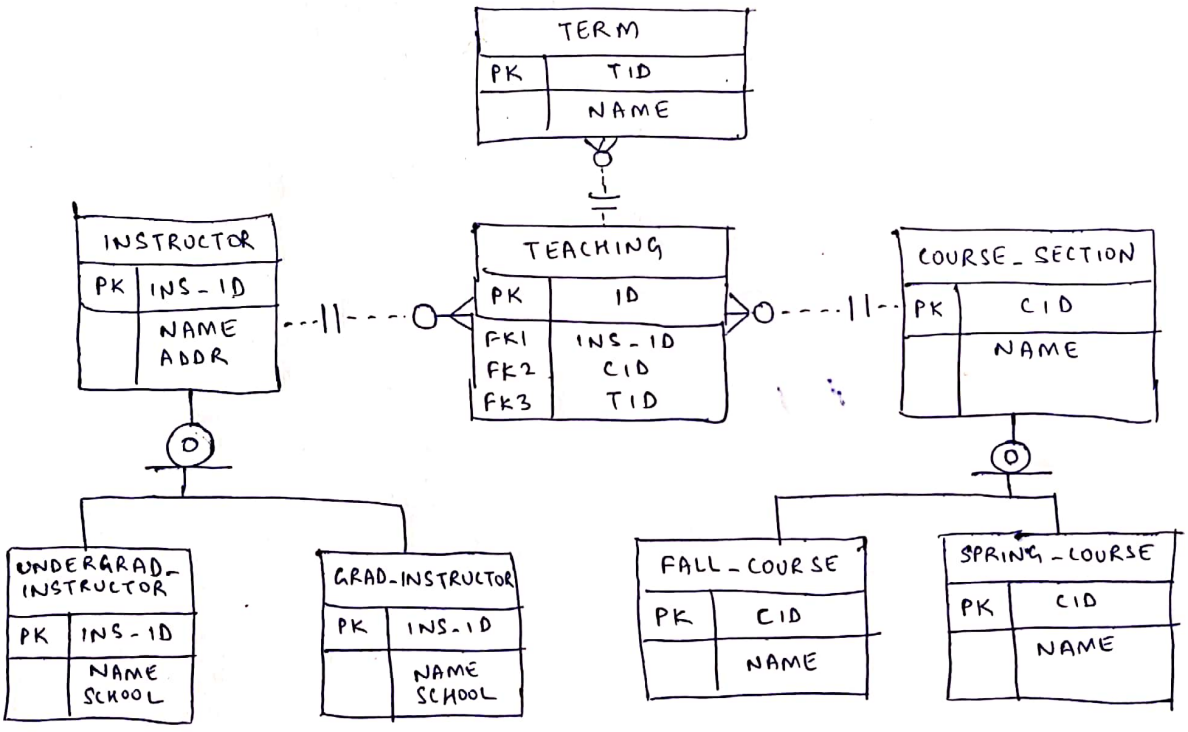


c) If we model ternary relationship using binary relationships then we cannot keep track of data like supplier A supplied product B to project C in this scenario. Also we cannot store quantity and due-date. So, it is better to use ternary relationship in this case.

Q4 :-


INSTRUCTOR
PK
INS_ID
NAME
QUALIFICATION
TEACHING
PK
ID
FK1
FK2
FK3
INS_ID
CID
TID
TERM
PK
TID
NAME
COURSE_SECTION
PK
CID
FK1
NAME
TERM_ID

OR


TERM
PK
TID
NAME
INSTRUCTOR
PK
INS_ID
NAME
ADDR
TEACHING
PK
ID
FK1
FK2
FK3
INS_ID
CID
TID
COURSE_SECTION
PK
CID
NAME
UNDERGRAD_INSTRUCTOR
PK
INS_ID
NAME
SCHOOL
GRAD_INSTRUCTOR
PK
INS_ID
NAME
SCHOOL
FALL_COURSE
PK
CID
NAME
SPRING_COURSE
PK
CID
NAME