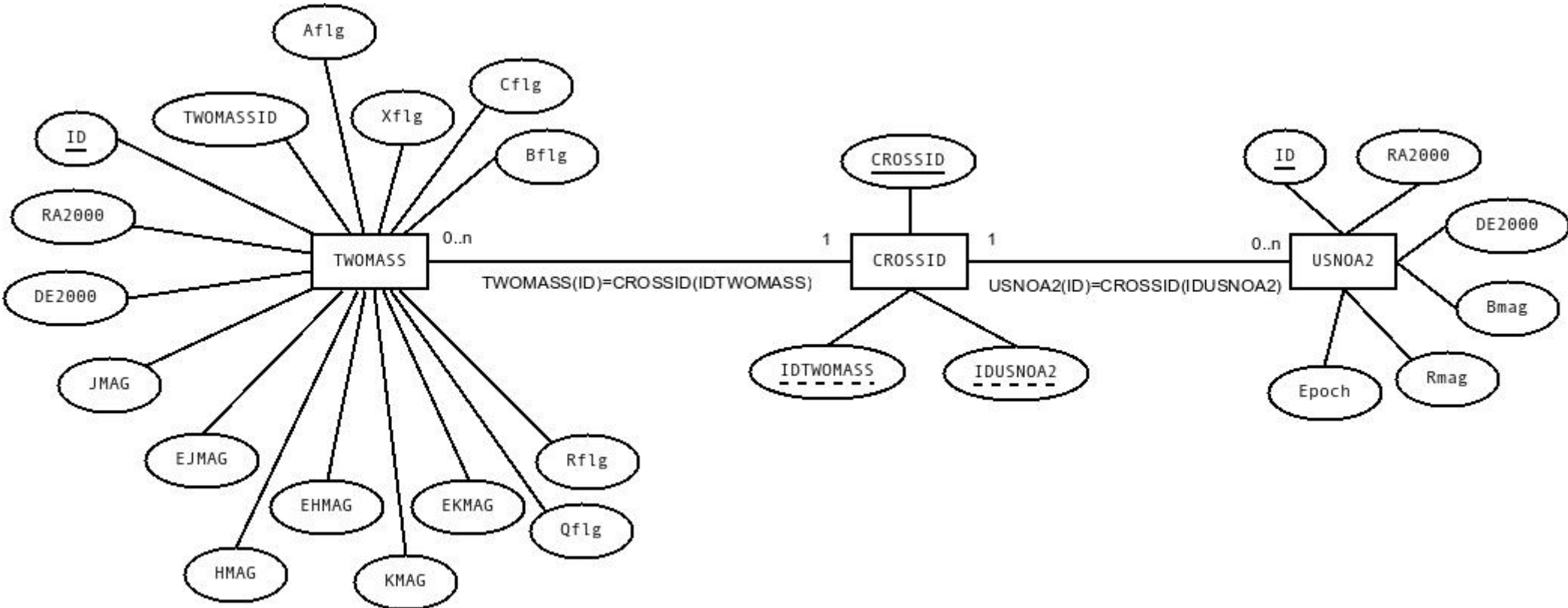


- Draw ER diagrams for TWOMASS, USNOA2, CROSSID
- Draw UML diagrams for TWOMASS, USNOA2, CROSSID
- Draw SADT diagram for cross-identification process
- Draw UML diagram for cross-identification



- Create database scheme from diagrams
- Implement database scheme
- Performe cross-identification on-the-fly (with one SQL statement)
- Performe cross-identification with python program

- SET @var:=0.0
- ROWNUM:
- SELECT @rownum:=@rownum+1
ROWNUM, t.* from (SELECT @rownum:=0) r,
TWOMASS t
- INSERT INTO TWOMASS
- SELECT @rownum:=@rownum+1 RN,
t.RA2000, t.DEC2000, FROM (SELECT
@rownum:=0) r, TWOMASS t

- $y = ax + b$
- $a = (n \sum xy - \sum x \sum y) / (n \sum x^2 - \sum x \sum x)$
- $b = \langle y \rangle - a \langle x \rangle$
- ```
SELECT t1.ID, t2.ID, t1.RA2000, t1.DEC2000,
t2.RA2000, t2.DEC2000 FROM TWOMASS
t1, USNOA2 t2, CROSSID t3 where
t1.ID=t3.IDTWOMASS and
t2.ID=t3.IDUSNOA2
```

- **AVG, SUM, COUNT**

- Ingest 2 cones of 2 deg radius (one in galactic plane, 1 in NP or SP)
- Cross-identify
- Plot CMD
- Find completeness limit for each magnitude
- Find completeness limit for each color range