

Relations and Normalization proofs

Group 5d

1. student(sid, sname, prog_name, batch, cpi)

sid -> (sname, prog_name batch, cpi)

Form : BCNF

2. studentinterests(sid(FK), interest)

No dependencies

Form: BCNF

3.skill(sid(FK), skills)

No dependencies

Form: BCNF

4. professor(prof_id, prof_name, dept_id(FK), designation, h_index, i_index)

prof_id -> (prof_name, dept_id, designation, h_index, i_index)

Form: BCNF

5.professorinterests(pid(FK), interest)

No dependencies

Form: BCNF

6.department(dept_id, dept_name)

dept_id -> dept_name

Form: BCNF

7.research_lab(name, room_no, building_no, headed_by (FK), phd_supervisor(FK))

name -> (room_no, building_no,headed_by, phd_supervisor)

Form: BCNF

8. project(proj_id, proj_name, domain, inception_date, conclusion_date, status)

proj_id -> (proj_name,domain,inception_date,conclusion_date,status)

Form: BCNF

9. student_works_on(proj_id, sid, start_date, end_date, guided_by(FK))

(proj_id, sid) -> (start_date, end_date, guided_by(FK))

Form : BCNF

10.professor_works_on(proj_id, prof_id, start_date, end_date)

(proj_id, prof_id) -> (start_date, end_date)

Form : BCNF

11. publication(doi, publication_name, date, field, publication_type, conference_name(FK), impact_factor)

doi -> (publication_name, date, field, publication_type, conference_name(FK), impact_factor)

Form: BCNF

12. conference(conference_name, scope, city, year)

conference_name -> (scope, city, year)

Form: BCNF

13. research_contribution(doi(FK), author_id(FK on student(sid) and professor(prof_id)))

No dependencies

Form: BCNF