**TEAM MEMBERS WITH THEIR UTA IDS:**

**Anande, Saahil (1001855308)  
Pagare, Richa (1001873138)  
Sharma, Satvik (1001868047)**

**Decomposition in BCNF :**

**For a relation to be in BCNF,Whenever X->A, X has to be superkey. Our relations are already in BCNF. Hence, we do not need to decompose the relations further.**

**In the relation Course, super key is (Course\_ID, Section)**

**Looking at the FD in relation Course, Course\_ID, Section-> Course\_Name,Dept\_no.**

**Thus, this FD doesn't violate BCNF.**

**In the relation Teacher, super key is (Teacher\_ID)**

**Looking at the FD in relation Course**

**(Teacher\_ID)-> Teach\_Phone, Teach\_Address, Teach\_Fname, Teach\_Mname,Teach\_Lname, Dept\_Id**

**This FD doesn't violate BCNF.**

**In the relation Student, super key is (Student\_ID)**

**Looking at the FD in relation Course**

**(Student\_ID)-> Stud\_Phone, Stud\_Address, Stud\_Fname, Stud\_Lname, Stud\_Gfname, Stud\_Gl\_name, account\_no**

**This FD doesn't violate BCNF.**

**In the relation Student Account, super key is Stud\_Account\_ID**

**Looking at the FD in relation Course**

**(Stud\_Account\_ID)-> Due\_Date, Balance\_Du**

**This FD doesn't violate BCNF.**

**In the relation Teaches, super key is Teach\_ID, (Course,Section)**

**The relation is in BCNF.**

**Similarly, relation Enrolls is also in BCNF.**