

## Normalization Lab 5 Solution

**Question 4: Put the following relation into third normal form.**

StudentName	StudentPhone	StudentDept	StudentDeptName	AdvisorName	AdvisorPhone	AdvisorDept	Term
Tolstoy	593-3824	21	English	Caplice	253-3233	ESD	Fall
Thoreau	644-2343	21	English	Caplice	253-3233	ESD	Fall
James	534-2534	21	English	Lapide	253-1111	ESD	Fall
Woolf	643-5436	18	Mathematics	Toomre	253-6322	Mathematics	Spring
Shakespeare	634-6344	8	Physics	Smith	253-8453	Physics	Spring
Pushkin	534-9832	7	Biology	Griffith	253-9833	Bio Engr	Spring

### **Ambiguities:**

1. Advisor department name/ID
2. Term could be a domain entity
3. Name not a good primary key, may have duplicates
4. Advisors, students could be in multiple departments
5. Student might have one (or more?) advisors in a term (?)

### **Third Normal Form:**

