Toyu schema in the format of HW assignment with normalization analysis

1	Grade(<u>grade</u>, gradePoint)
Candidate Keys	[1] grade, [2] gradePoint
Foreign Keys	
Nullable Attributes	
Non-nullable Attributes	grade, gradePoint
Notes	
Normalization Analysis	[1] FD: (1) grade -> gradePoint, (2) gradePoint -> grade [2] Highest NF: BCNF
2	School(<u>schoolCode</u>, schoolName)
Candidate Keys	[1] schoolCode, [2] schoolName
Foreign Keys	
Nullable Attributes	
Non-nullable Attributes	schoolCode, schoolName
Notes	
Normalization Analysis	[1] FD: (1) schoolCode -> schoolName, (2) schoolName -> schoolCode. [2] Highest NF: BCNF
3	Department(<u>deptCode</u>, deptName, schoolCode, numStaff)
Candidate Keys	[1] deptCode, [2] deptName
Foreign Keys	[1] schoolCode references School(schoolCode)
Nullable Attributes	schoolCode, numStaff
Non-nullable Attributes	deptCode, deptName,
Notes	
Normalization Analysis	[1] FD: (1) deptCode -> deptName, schoolCode, numStaff, (2) deptName -> deptCode [2] Highest NF: BCNF
4	Faculty(<u>facId</u>, fname, lname, deptCode, rank)
Candidate Keys	[1] facId
Foreign Keys	[1] deptCode references Department(deptCode)
Nullable Attributes	rank
Non-nullable Attributes	facId, fname, lname, deptCode
Notes	
Normalization Analysis	[1] FD: (1) facId -> fname, lname, deptCode, rank [2] Highest NF: BCNF
5	Course(<u>courseId</u>, rubric, number, title, credits)
Candidate Keys	[1] courseId,
Foreign Keys	[1] rubric references Department(deptCode)
Nullable Attributes	credits
Non-nullable Attributes	courseId, rubric, number, title
Notes	
Normalization Analysis	[1] FD: (1) courseId -> rubric, number, title, credits [2] Highest NF: BCNF
6	Class(<u>classId</u>, courseId, semester, year, facId, room)
Candidate Keys	[1] classId
Foreign Keys	[1] courseId references Course(courseId), [2] facId references Faculty(facId)

Nullable Attributes	room
Non-nullable Attributes	classId, courseId, semester, year, facId
Notes	
Normalization Analysis	[1] FD: (1) classId -> courseId, semester, year, facId, room [2] Highest NF: BCNF
7	Student(<u>StuId</u>, fname, lname, major, minor, ach, advisor)
Candidate Keys	[1] StuId
Foreign Keys	[1] major references department(deptCode), [2] minor references department(deptCode), [3] advisor references faculty(facId)
Nullable Attributes	major, minor, advisor
Non-nullable Attributes	stuId, fname, lname, ach
Notes	
Normalization Analysis	[1] FD: (1) StuId -> fname, lname, major, minor, ach, advisor [2] Highest NF: BCNF
8	Enroll(<u>stuId</u>, <u>classId</u>, grade, n_alerts)
Candidate Keys	[1] stuId, classId
Foreign Keys	[1] stuId references Student(stuId), [2] classId references Class(classId), [3] grade references Grade(grade)
Nullable Attributes	grade, n_alerts
Non-nullable Attributes	stuId, classId
Notes	[1] A surrogate key, Enroll, has not been created. It may be created.
Normalization Analysis	[1] FD: (1) stuId, classId -> grade, n_alerts [2] Highest NF: BCNF