

SSN COLLEGE OF ENGINEERING, KALAVAKKAM – 603 110
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
B.E. (CSE) VII SEMESTER – CSE 'A' SECTION
IT6801 SERVICE ORIENTED ARCHITECTURE
Academic Year: 2016-2017 ODD Batch: 2013-2017 Faculty: Dr. R. Kanchana

Assignment 1 - XML Design using DTD and XML Schema

Consider the following student database. We are interested in placing this information in document format.

Student Information:

StId	Name	Phone	St. No	Street Name	City	State	Courses Taken	Degree
995435245	Aliya	44-4245979406	13	TNagar	Chennai	Tamil Nadu	1 3 4 5	BE
997458623	Ravi	44-8932456	12	Anna Nagar	Chennai	Tamil Nadu	3 4 5	BE
995987345	Megha	451-5345660	5	Nethaji Nagar	Dindigul	Tamil Nadu		BE
997424563	Chan	431-2348638	14	Mada Street	Madurai	Tamil Nadu	2 4 8 10	ME SE
995267842	Mithun	44-4562983	35	OMR	Chennai	Tamil Nadu	1 2 3	ME CSE
998112455	Malan	44-7893242	67	Adyar	Chennai	Tamil Nadu	5 7 10	ME SE
993457622	Nitin	31-4561190	345	Main	Hassan	Karnataka	3 4 7 9	BE
997821345	Betty	11-46451190	32	Karolbag	Delhi	Delhi		BE
996453222	Christy	44-43254323	78	ECR	Chennai	Tamil Nadu	1 5 6 7	BE
996112321	Sekar	51-45345678	98	Park street	Bhopal	MP	5	BE
997685643	Singh	11-342342344	12	MG	Delhi	Delhi	9 10	ME CSE

Courses information:

Id	Course Name	Dept	Allowable Student
1	Introduction to Databases	CSE	BE
2	Numerical Methods	MATHS	BE
3	Operating Systems	CSE	BE
4	Computer Graphics	CSE	BE
5	Cloud Computing	CSE	ME CSE, ME SE
6	IoT	ECE	ME CSE, BE
7	Web Services	CSE	ME SE, BE
8	Advanced Databases	CSE	ME CSE, ME SE
9	Professional Ethics	IT	ME CSE
10	Image Processing	ECE	BE, ME SE

1. Define a DTD, students.dtd, for documents that list all courses offered, and then the courses taken by each student. The DTD should allow each registered student to take 0 or more courses. Phone numbers are optional. A course may be taken by students. A student may be taking a course for which he/she cannot get credit (e.g., a BE student taking a course for ME CSE may not get credit and can only audit the course).
2. Provide an XML document, students.xml, that captures the information given in the tables above and is consistent with students.dtd.
3. Create an XML Schema that matches your XML document. Ensure the format of the phone number. Implement 2 more relevant constraints.
4. Validate your XML document against your XML Schema.
