Software Engineering Lab assignment (CS751)

Assignment 3 : Requirement analysis/specification and Data modeling

Examination Management System :

The Examination Management System (EMS) is a simple and easy to use web-based application having centralized user interface that is intended to make the entire examination process simple and minimize the ink-paper work. The EMS includes all important activities done by the examination department, such as student registration, generation of subject-id/course-id, assignment of course-id to the student, assignment of subject-id to the examiner, secured online question paper submission, tabulation of marks, scrutiny, and publication of result etc.

A basic version of EMS can have mainly following modules/components. Work breakdown might not be ideal as there are cross dependencies among the components

Sl-No	Component Name	Responsibilities
1	User-Provisioning-Module	Generation of user list, e. g. Controller of examination, data-entry-operator, Department wise list of head-examiner, examiner, scrutineer, students etc
2	Subject-Code-Generator-Module	Generation of subject-code under each course-id in an examination. Assignment of a course-id to the student
3	Student-Registration-Module	Student enrollment, registration, generation of admit card
4	Question-Paper-Handling-Module	Assignment of subject-code to examiner, submission/moderation of question paper and archival of question paper
5	Marks-Submission-Module	Marks tabulation, e. g. submission of marks by the examiner, scrutiny of marks, rectification of marks (if any)
6	Result-Publication-Module	Publication of semester wise, final result. Also archival of result of passed out students

7	Licensing-Module	Licensing of web based software – generation, expiry and renewal of of license key
8	Security-Module	Security of web based software – securing data exchange over the network (private/pubic)

Requirement analysis and specification

In this assignment, students are expected to brainstorm within the group as well across the groups to understand the overall problem description very clearly. Then respective group should give in-depth focus to their respective assigned module and come up with use-case diagram and a set of Functional Requirements. Requirements has to be well understood, specified and free from any ambiguity. Whenever there is any dependencies felt with some other module, it is expected to resolve those by discussing among the cross groups, else take reasonable assumptions and proceed further. Requirements should be specified in such a manner that it should be understandable by the client as well can be used by the designer in the design phase.

Data modeling

On completion of Requirement analysis/specification, next is to move towards design. In this phase, work is restricted only to data modeling and designing database schema applies to the respective modules.

Group : GX

Class Roll	Exam Roll	Name	Assignment
Team : GX1 03 08 20 24	 111105010 111205006 111205030 111205036	 Ajitesh Mandal Mainak Manna Ankur Debnath Avishek Roy	[4] - Question-Paper-Handling-Module
Team : GX2 01 15 21 30	 111005004 111205024 111205031 121305001	 Salma Mandi Amrit Agarwal Debleena Sarkar Piyali Chakraborty	[7] - Licensing-Module

Team : GX3 04 14 23 27	111105016 111205019 111205035 111205046	Arpita Das Javed Sahaan Debottam Kundu Biswajyoti Choudhuri	[8] - Security-Module
Team : GX4 07 11 18 32	111205004 111205013 111205028 121305003	Debagnick Ghosh Arnab Roy Chiranjiv Roy Smita roy	[5] - Marks-Submission-Module
Team : GX5 16 17 19 26	111205025 111205026 111205029 111205044	Chetan Poudel Abhishek Mahato Atish Sanyal Biswaroop Banerjee	[6] - Result-Publication-Module
Team : GX6 12 13 22 29	111205015 111205017 111205032 111205053	Amit Kumar Dhara Arinjoy Basak Abhinab Roy Anupam Mandal	[2] - Subject-Code-Generator-Module
Team : GX7 02 05 10 31	111005019 111205002 111205011 121305002	Sonu Kumar Gond Amrita Biswas Pritam Banerjee Sunanda Roy	[1] - User-Provisioning-Module
Team : GX8 06 09 25 28	111205003 111205009 111205041 111205050	Archana Bhagat Arpan Sen Anoma Barua Anupama Mondol	[3] - Student-Registration-Module

Group : GY

Class Roll		Name	Assignment
Team : GY1			[8] - Security-Module
40	111205012	Saptashwa Sarkar	
47	111205027	Shreyasee De	
57	111205052	Suparna Saha	
Team : GY2			[6] - Result-Publication-Module
36	111105061	Krittika Biswas	
38	111205007	Rahul Chowdhury	
45	111205022	Sayantan Pandit	
51	111205040	Suman Banerjee	
Team : GY3			[2] - Subject-Code-Generator-Module
43	111205018	Rahul Ranjan	
46	111205023	Prameya Mondal	
52	111205042	Shuvam Bosana	
60	111205057	Shreya Mondal	
Team : GY4			[7] - Licensing-Module
35	111105056	Subha Banerjee	
55	111205047	Mousumi Mandal	
61	111205058	Somesh Vikrant Ayalasomayo	
63	111205060	Arup Dey	
Team : GY5			[5] - Marks-Submission-Module
39	111205010	Shrestha Ghosh	
41	111205014	Subham Banerjee	
50	111205039	Saptarshi Nag	
59	111205056	Suchismita Ghosh	
Team : GY6			[3] - Student-Registration-Module
33	111005002	Antu Tunga	
42	111205016	Udbhas Hazra	
48	111205037	Pradipta Pal	
54	111205045	Sourav Biswas	

Team : GY7			[1] - User-Provisioning-Module
34	111105008	Sujeet Kumar Shaw	
44	111205021	Subhadip Nandi	
49	111205038	Sayak Haldar	
56	111205048	Siddharth Kumar	
Team : GY8			[4] - Question-Paper-Handling-Module
37	111205005	Pujon Chakraverty	
53	111205043	Prerona Das	
58	111205054	Abhisek Mukherjee	
62	111205059	Sangita Ray	