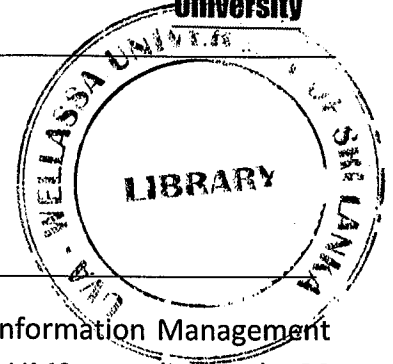


Uva Wellassa University of Sri Lanka
Faculty of Science and Technology
Department of Computer Science and Technology
300 level 2nd Semester Examination – Sept. / Oct. 2015
CST 323-3 Web Development Technology



Instructions to candidates

Duration: Three (03) hours

Number of questions: One (01)

Mark allocation: 100

1. You have been given a Requirement Specification (RS) for a Library Information Management System (LIMS) and you are required to develop a web application for a LIMS according to the RS given below.

Functional requirements

Librarian/ Administrator	Student
Login to the system	Login to Library management system
Search for a book	Search for book
Add a new book to the database	Logout from the system
Add a new student to the database	
Update the details of a student	
Remove a book from the database	
Lending a book for a student	
Returning a book (by student)	
Logout from the system	

(50 mark)

Non-functional requirements

- Security (user level authentication)
- Reusability (reusing code snippets and files) and User-friendly exceptional handling (both web and database errors)
- Usability and accessibility

(30 mark)

Develop a web application, which fulfills all the requirements specified in RS document. You are responsible for designing the required database with appropriate tables.

Your database should consists of the following tables (create additional tables if necessary)

- Librarian
id, email, fName, lName, password
- Administrator
id, email, fName, lName, password
- Student
student id, Email, fName, lName, Password, ContactNo, RegistrationDate, Faculty, Department, DegreeProgram, Address, Remarks
- Book
book ref, isbn, Title, Author, Publisher, Year, Price, Section, NoCopies, Availability
- Lending (or Borrowing)
student id, book ref, lendStatus, lendDate, Duration, Extended, Comments
- Returning
student id, book ref, returnDate
- Fine
student id, book ref, lateDays, fineAmount, FineDueDate
- Login
sessionid, user id, dateOfLogin, timeOfLogon, timeOfLogoff

(20 mark)

Important

All the exceptions generated by the web and database servers should be properly handled.

Styling and additional formatting are not required. However, the clarity and the simplicity of the interfaces are highly concerned.

You are free to define any fare policy or reasonable logic where applicable.