

Dharmsinh Desai University
MCA Semester – 3 (2024-25)
23MCA3001 – Advanced Web Development

Practical - 7

Prerequisite: Perform the programs given in the Lab. manual provided during the regular classroom sessions.

1. Create appropriate HTML/JavaScript/Node.js/Express.js code for the following web-application requirement:
 - a. Using mongosh, create a DB 'university' and a collection 'students' with fields: rollno, name, c-marks, python-marks, java-marks, total-marks and percentage.
 - b. Using mongosh, insert 3 appropriate documents (fields: rollno, name, c-marks, python-marks and java-marks) into the 'students' collection.
Also insert one more document having 0 marks in all subjects.
 - c. Using MVC implement following functionalities with express js and mongoose.
 - i. For web-client, develop a functionality to - Insert Student – document (fields: rollno, name, c-marks, python-marks and java-marks).
Client should insert minimum 10 documents.
 - ii. For web-client, develop a functionality to - Compute total marks - for updating the total-marks field in all documents.
 - iii. For web-client, develop a functionality to - Compute percentage - for updating the percentage field in all documents.
 - iv. For web-client, develop a functionality to - Show all students - for listing all student documents in tabular format to client side.
 - v. For web-client, develop a functionality to – Show top 3 students in C subject.
 - vi. For web-client, develop a functionality to – Show merit list.
 - vii. For web-client, develop a functionality to – Give <n> marks grading in java subject.
 - viii. For web-client, develop a functionality to – Delete a document having 0 marks in all subjects.
 - ix. For web-client, develop appropriate 'search' functionality.
 - x. In 1-c-v, for listing toppers in a specific subject, accept subject name as a choice from user (use - drop down or radio button).

Optional:

- xi. In 1-c-x, avoid whole-page refresh with help of AJAX.
- xii. Create a menu-based frontend with menu-items (or individual buttons) for serving functionalities: 1-c-i to 1-c-xi.
