MCSL 217

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1. Suppose that you need to build software for a Railway Reservation System. Write a statement of scope that describes the software.
2. Estimate the effort and cost required to build the above software. Use any estimation technique.
3. Develop SRS (Software Requirements Specification) for the Railway Reservation System (RRS)
4.
    a. Draw DFDs up to appropriate levels for the RRS.
    b. Draw ERDs for the RRS. Describe the relationships between different entities.
    c. Design Data Dictionary for RRS.
5. Write a program in 'C' language for the multiplication of two matrices .

6. Develop a set of test cases that will completely test the program in the test case should be separately developed for Unit testing, Module testing and Integration testing.
7. Design a web page that accepts a matrix as input and computes its transpose. The web page should have two text boxes and a submit button labelled as Input Elements . After entering the number of rows of the input matrix in the first text box and number of columns of the input matrix in the second text box of the web page, SUBMIT button should be clicked. Once clicked, a number of text boxes which are equivalent to the number of elements in the matrix will appear along with a submit button at the bottom labelled as Compute Transpose. When the Compute Transpose button is clicked, the transpose of the input matrix has to be displayed.
8. Develop test cases for the web pages of 7. Then, develop test report after testing using the test cases developed.
9. Write a Program that is correct but of not good quality. Justify your answer. Make necessary assumptions.
10. Write a Program that is correct but still not reliable. Justify your answer. Make necessary assumptions.
11. Select a software that you use regularly such as MS-office, Gmail, MS-Excel etc. Create a set of usage scenarios for the software.
12. Select a small portion of any program written by you. Check if the portion of code selected by you is having constructs that violate the structured programming paradigm. If yes, then rewrite the code to conform to structured programming paradigm. If no, check another portion of code.