* Discuss T1 paper

Q1. Suppose you have to design an e-commerce web-application just like "Amazon". Give the justification of which tier architecture the application follow with its advantages and limitations.

Q2. Write a JavaScript code for finding a substring present in the string and its count in a web page. The page UI allows user to enter a string into textbox. The user click on ‘Find’ button to detect the substring and its count present in the text.

Q3. Suppose you have a database containing a table –“cars\_detail” with 4 attributes: Car\_Model, Engine\_Capacity, Max\_Speed , Manufacturing\_Company where Car\_Model is the primary key. Write PHP and GUI code to solve the following case:

User can select as many car models as he/she wants using checkboxes, when user selects “give details about the Car” button on home.php, the system should display the following details: Car Model, Manufacturing Company, engine capacity and max. speed on display.php page.

Q4. A friend is impressed by your skills in CI312, and asks you to help her design a database to model doctors’ offices across Noida. She started the E/R diagram below which already contains all the entity sets, their attributes and relationships she wants you to consider. You need to finish the diagram and define a number of constraints to ensure that you model the semantics of an office as closely as possible. Make sure that you do not impose additional constraints not defined by the model.

1. An office may be managed by at most one doctor. A doctor is uniquely identified by their badgeId, and may manage more than one office. Draw the necessary constraints to capture this requirement.
2. An office is identified by its address, and contains one or more exam rooms. A room can be identified by its room number, and the office that it is in. Capture these constraints by drawing on or modifying the diagram where necessary.
3. When a patient visits an office, he or she has a consultation with a doctor in an examination room. Each patient is uniquely identified by their SSN. Draw your answer directly onto the figure below.

 

 

Make sure that any arrows, lines, double lines etc, are clearly visible.