Course Code	**:**	**MCSL-217**
Course Title	**:**	**Software Engineering Lab**
Assignment Number	**:**	**MCA_NEW(I)/217/Assign/2026**
Maximum Marks	**:**	**100**
Weightage	**:**	**40%**
Last Dates for Submission	**:**	**30th April 2026 (for January session)** **31st October 2026 (for July session)**

This assignment has one question for 80 marks. 20 marks are for viva voce. You may use illustrations and diagrams to enhance the explanations. Please go through the guideline regarding assignments given in the Programme Guide for the format of presentation.

Q1:

ABC is a network of Electronics stores across the Country. Also, ABC is having an online shop from where any electronic appliance can be bought which will be delivered at the address given by the Customer or delivery can also be taken from the store selected by the Customer. There is also provision to visit any store and also buy goods. Whenever, goods are bought online or at store in person, the software that consists of information about the quantity of appliance that is available will be reduced appropriately. Assume that you need to develop a software system that encompasses the above mentioned acativities.
Make assumptions, wherever necessary. Also, list them very clearly.

Now, with reference to the above, answer the following:

(1) List the Entities **(20 Marks)**
(2) For each Entity, list Attributes **(20 Marks)**
(3) Define relationships between the Entities **(20 Marks)**
(4) Finally, draw the Entity Relationship Diagram **(20 Marks)**

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Answer

Assumptions

- Each store is represented separately and keeps its own stock quantity for every appliance it carries.
- An appliance can be stocked in many stores, and a store can stock many appliances. Therefore, Inventory is used as an associative entity between Store and Appliance.
- Every purchase is recorded as an order. The field order_mode distinguishes ONLINE and IN_STORE purchases.