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| animatedLOGO | **Assignment No. 02**  **Semester: Fall 2024**  **Software Engineering-1 (CS504)** | **Total Marks: 20**  **Due Date:** 04/01/2025 |
| **Assignment No. 2 covers lecture-9 to lecture-23.**  **Objectives:**   * To improve the learning of students related to Logical System Models. * To have hands on experience of Sequence Diagram (UML Notations).   **Instructions:**  Please read the following instructions carefully before submitting assignment:   * You should submit your assignment before or on due date through the VULMS. * Your assignment should be your own work in your own words. It should not be copied from Internet, handouts or books. * Your Assignment solution must be in Microsoft Word document format. Assignment solution in other than Microsoft Word document will not be accepted. * Assignment sent via email will not be replied and accepted. * If the submitted assignment does not open or file is corrupt, it will not be marked and hence awarded zero marks.   **Question # 1: (Marks 20)**  **Scenario: Vending Machine**  A vending machine sells small, packaged, ready to eat items. A customer can buy an item, using a smart card (issued by the vending machine company) to pay for it. No other payment forms (i.e., cash, credit or debit card) are allowed. The smart card records on it the amount of money available.  You are required to draw a sequence diagram with proper format and notations of the following sequence of actions.  **Sequence of Actions**   1. The **Customer** inserts a smart card into the vending machine. 2. The **Vending Machine** uses the **Smart Card Reader** to check the validity of the card. 3. The **Smart Card Reader** confirms the card's validity by returning true. 4. The **Customer** choose an item from the vending machine menu. 5. The **Vending Machine** checks item’s availability in items stock. 6. If the item is available, the **Vending Machine** allowing the **Customer** to purchase the item. 7. The **Smart Card Reader** update the card amount after deducts the item's price from the smart card balance. 8. The **Customer** receive the item and release the smart card from the vending machine.   **Note:**   * You should use Lucid chart, Creately, Visual paradigm online or some other drawing tool (supporting the UML notations) to develop the required diagram. * The diagrams should be pasted in the MS Word file as an image, and the MS Word (.docx) file should be uploaded on VULMS. * Diagrams copied from ChatGPT will not be accepted. | | |
| **Good Luck!** | | |