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| animatedLOGO | **Assignment No. 01**  **Semester: Fall 2024**  **Software Engineering-1 (CS504)** | **Total Marks: 20**  **Due Date: 07th Nov, 2024.** |
| **Assignment No. 1 covers lecture-01 to lecture-09.**  **Objectives:**   * To have hands on experience of Use Case Modeling * To get familiar with state transition diagrams   **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, Chatgpt, 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.** | | |
| **For any query about the assignment, contact at** [**CS504@vu.edu.pk**](mailto:CS504@vu.edu.pk) | | |
| **Question # 1: (10 Marks)**  In a use case diagram, two types of relationships can exist between use cases:   1. **Extend** relationship between two use cases 2. **Include** (uses) relationship between two use cases   Identify and label the relationships as either "extend" or "include" for the connections numbered 1 to 5 in the figure below:  **C:\Users\komal\Desktop\CS504 Fall 2024 assignment # 1.jpg**  **Question#2: (10 Marks)**  The state transition diagram for a movie inventory system, which outlines how the states of a movie change based on its availability, reservations, and loans, is provided below. Alongside this diagram, you will find a state transition table that includes the current state of the system and the corresponding events. Your task is to fill in the last column of the table with the appropriate next states.     |  |  |  | | --- | --- | --- | | **Current State** | **Event** | **Next State** | | Available | Rent movie |  | | Reserved | Rent movie |  | | On Loan | Return movie |  | | Reserved | Cancel reservation |  | | Available | Reserve movie |  | | | |
| **GOOD LUCK!** | | |