

## SOFTWARE ENGINEERING

### EXPERIMENT (5): Sketch Activity, State Transition diagram for the project

- TE COMP B ROLL NO. 02
- TE COMP B ROLL NO. 12
- TE COMP B ROLL NO. 18
- TE COMP B ROLL NO. 25

### TOPIC: CANTEEN MANAGEMENT SYSTEM

**Aim:** To Sketch Activity, State Transition diagram for Restaurant Billing system.

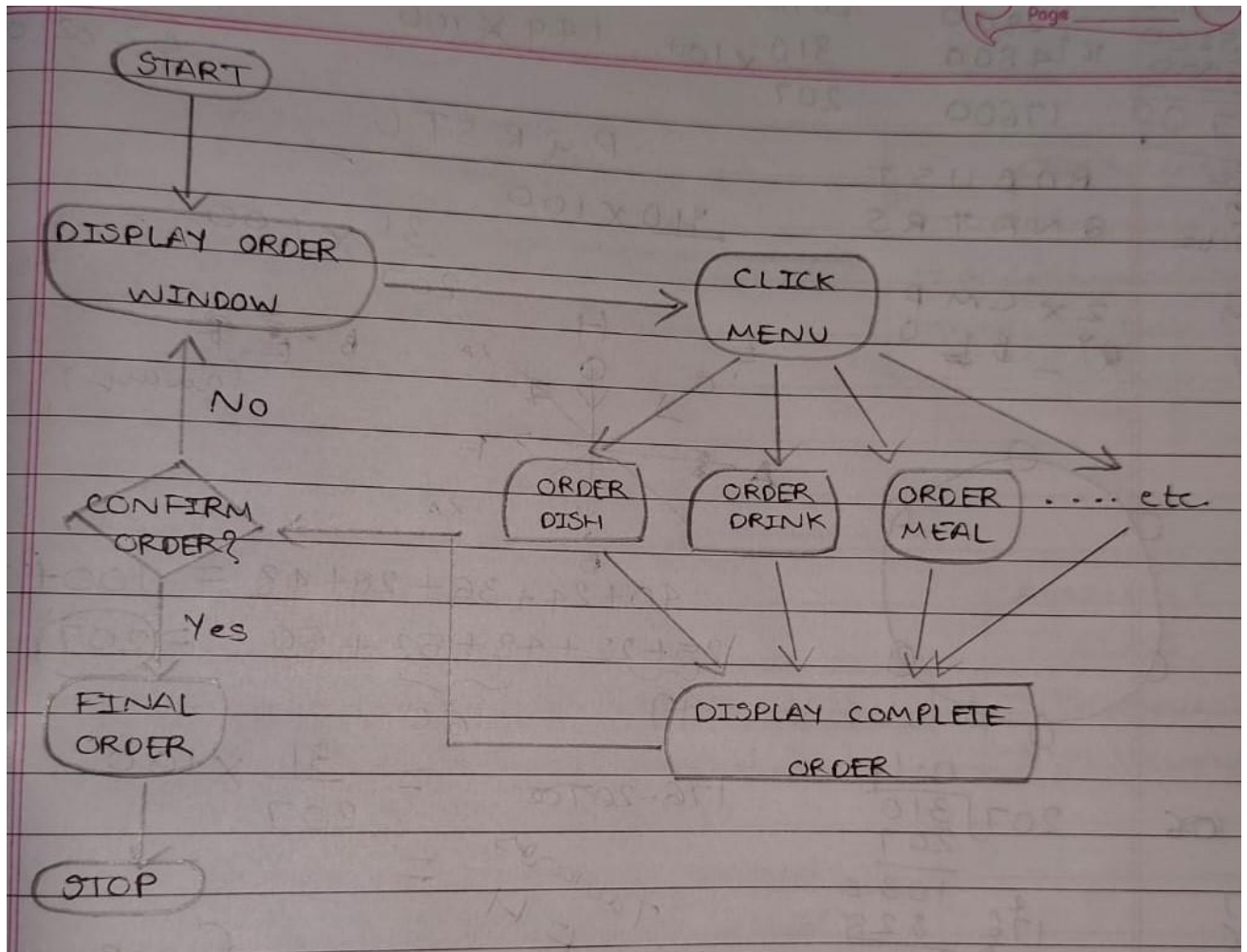
#### **Theory:**

❖ **Activity Diagram:** Activity diagram is basically a flowchart to represent the flow from one activity to another activity. The activity can be described as an operation of the system. The control flow is drawn from one operation to another. This flow can be sequential, branched, or concurrent. Activity diagrams deal with all type of flow control by using different elements such as fork, join, etc. The purpose of an activity diagram can be described as –

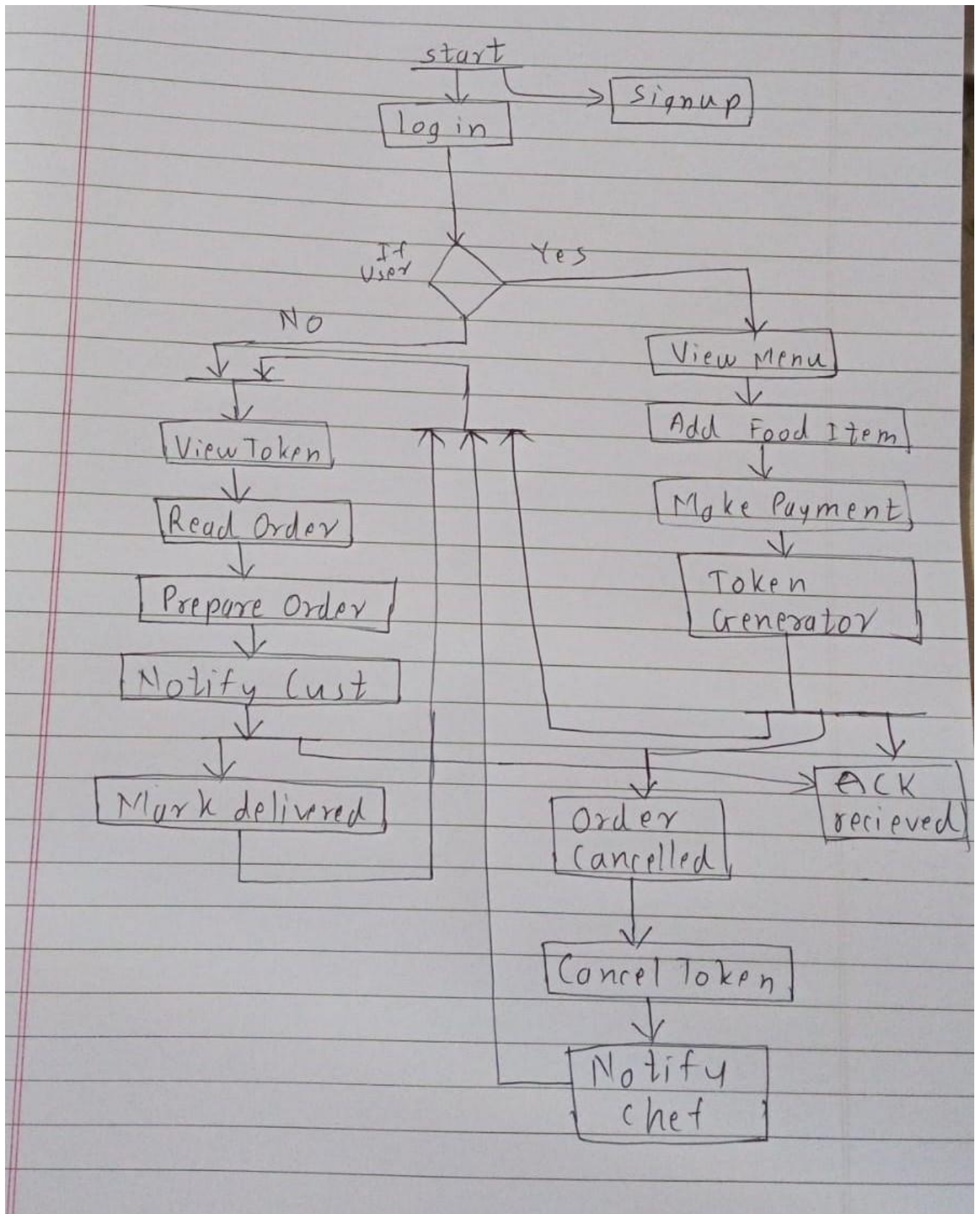
- Draw the activity flow of a system.
- Describe the sequence from one activity to another.
- Describe the parallel, branched and concurrent flow of the system.

❖ **State Transition Diagram:** State-transition diagrams describe all of the states that an object can have, the events under which an object changes state (transitions), the conditions that must be fulfilled before the transition will occur (guards), and the activities undertaken during the life of an object (actions). State-transition diagrams are very useful for describing the behaviour of individual objects over the full set of use

cases that affect those objects. State- transition diagrams are not useful for describing the collaboration between objects that cause the transitions.



**Activity Diagram**



**State Transition diagram**

**Conclusion:** Thus, the students were able to understand as well as design activity diagram and state-transition diagram.