

Assignment no 3

Aim:

Prepare Activity Model, Identify Activity states and Action states. Draw Activity diagram with Swimlanes using UML2.0 Notations for major Use Cases.

Objective:

- To Identify activities involved within the proposed software system
- Design the Activity Diagram.

Theory:

In UML, an activity diagram provides a view of the behavior of a system by describing the sequence of actions in a process. Activity diagrams are similar to flowcharts because they show the flow between the actions in an activity; however, activity diagrams can also show parallel or concurrent flows and alternate flows. In activity diagrams, you use activity nodes and activity edges to model the flow of control and data between actions. Activity diagrams are helpful in the following phases of a project:

- Before starting a project, you can create activity diagrams to model the most important workflows.
- During the requirements phase, you can create activity diagrams to illustrate the flow of events that the use cases describe.
- During the analysis and design phases, you can use activity diagrams to help define the behavior of operations.

The Activity diagram is composed of following model elements:

Activities

In UML, activities are container elements that describe the highest level of behavior in an activity diagram. Activities contain several activity nodes and activity edges that represent the sequence of tasks in a workflow that result in a behavior.

- **Actions**

In UML, an action represents a discrete unit of functionality in an activity.

- **Control nodes**

In activity diagrams, a control node is an abstract activity node that coordinates the flow of control in an activity.

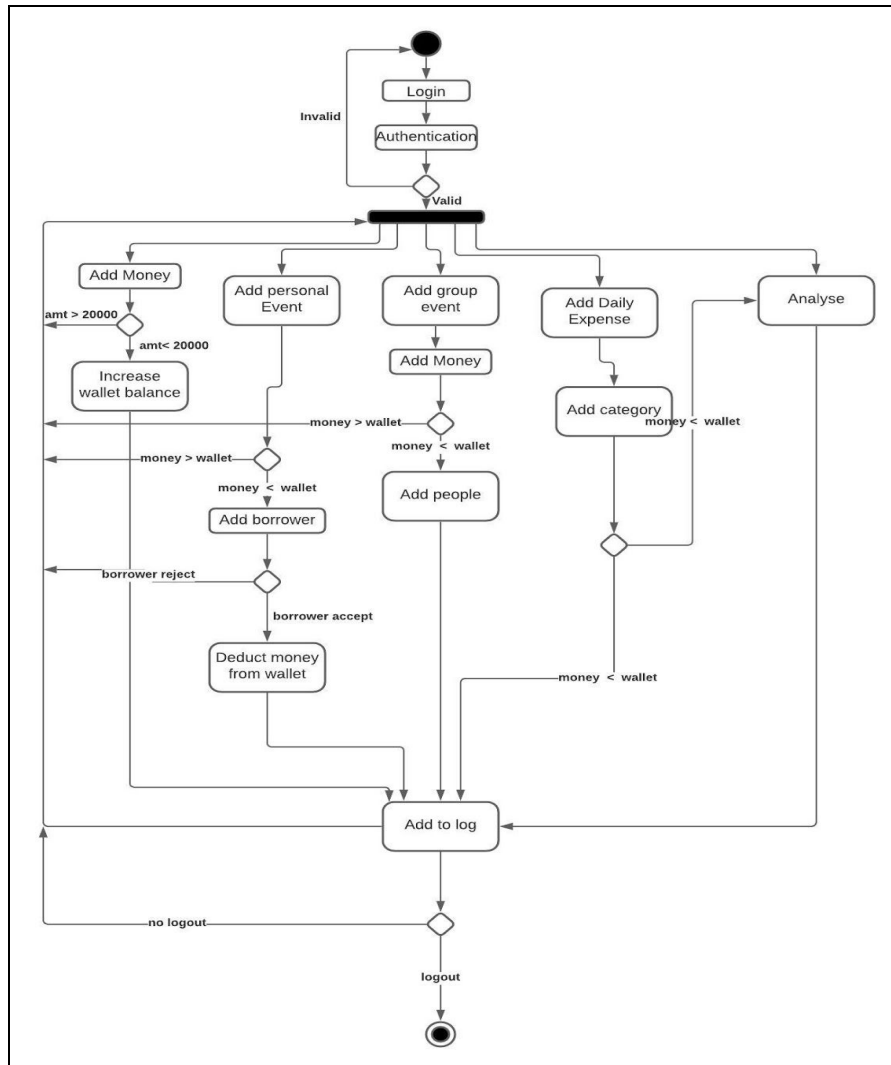
- **Object nodes**

In activity diagrams, an object node is an abstract activity node that helps to define the object flow in an activity. An object node indicates that an instance of a classifier might be available at a particular point in the activity.

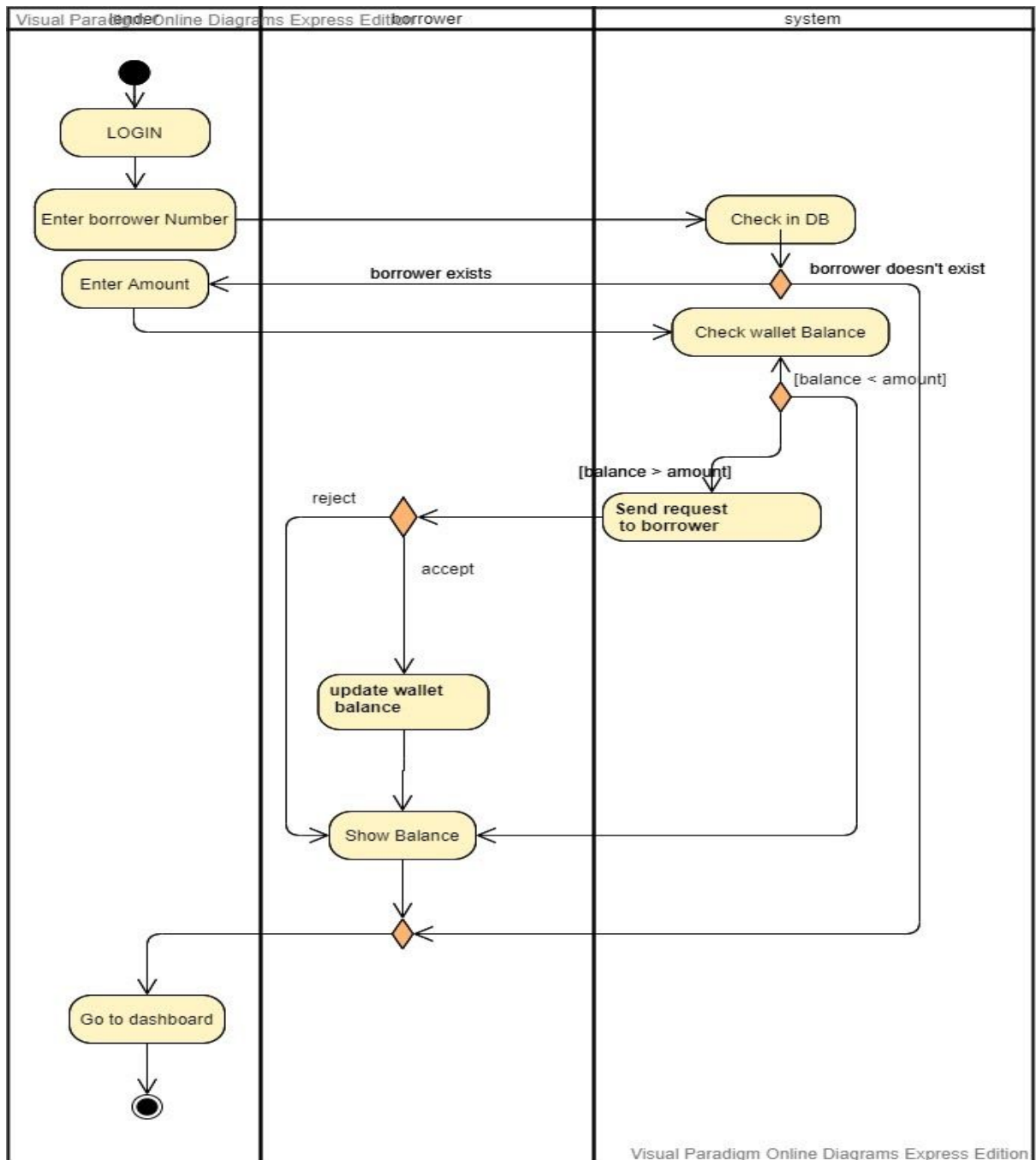
- **Activity edges**

In activity diagrams, an activity edge is a directed connection between two activity nodes. When a specific action in an activity is complete, the activity edge continues the flow to the next action in the sequence.

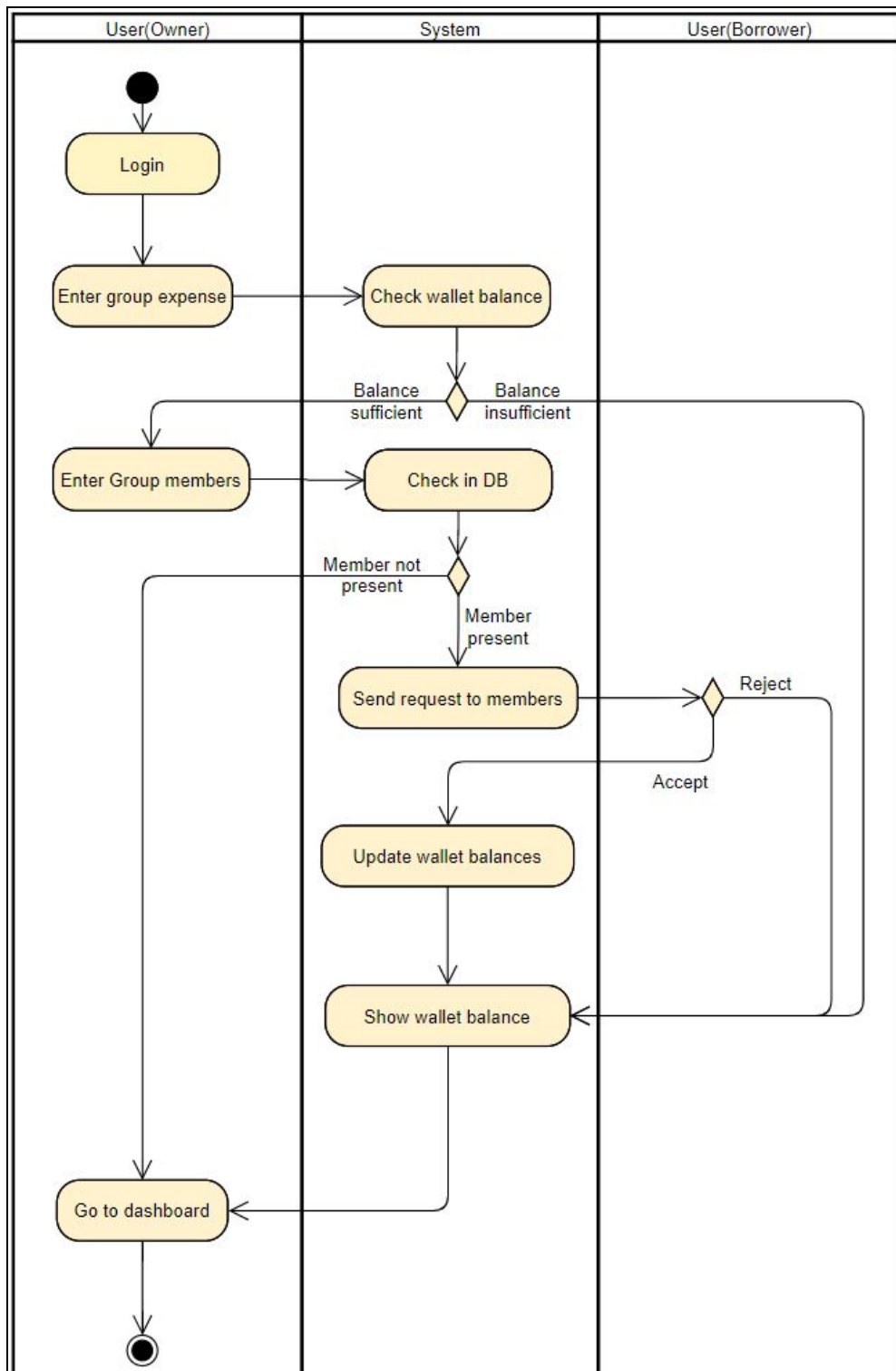
Activity diagram:



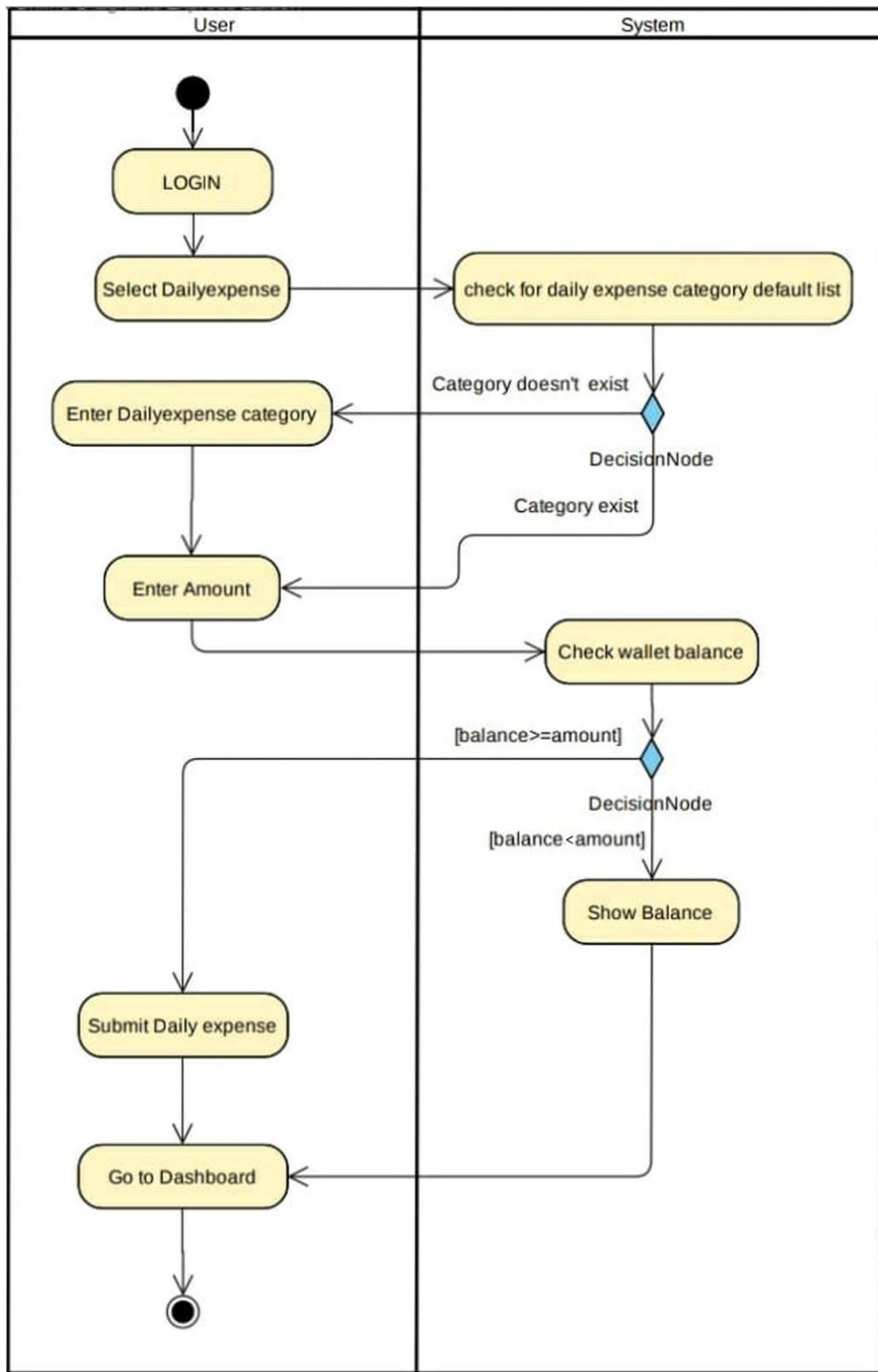
1) PERSONAL EVENT



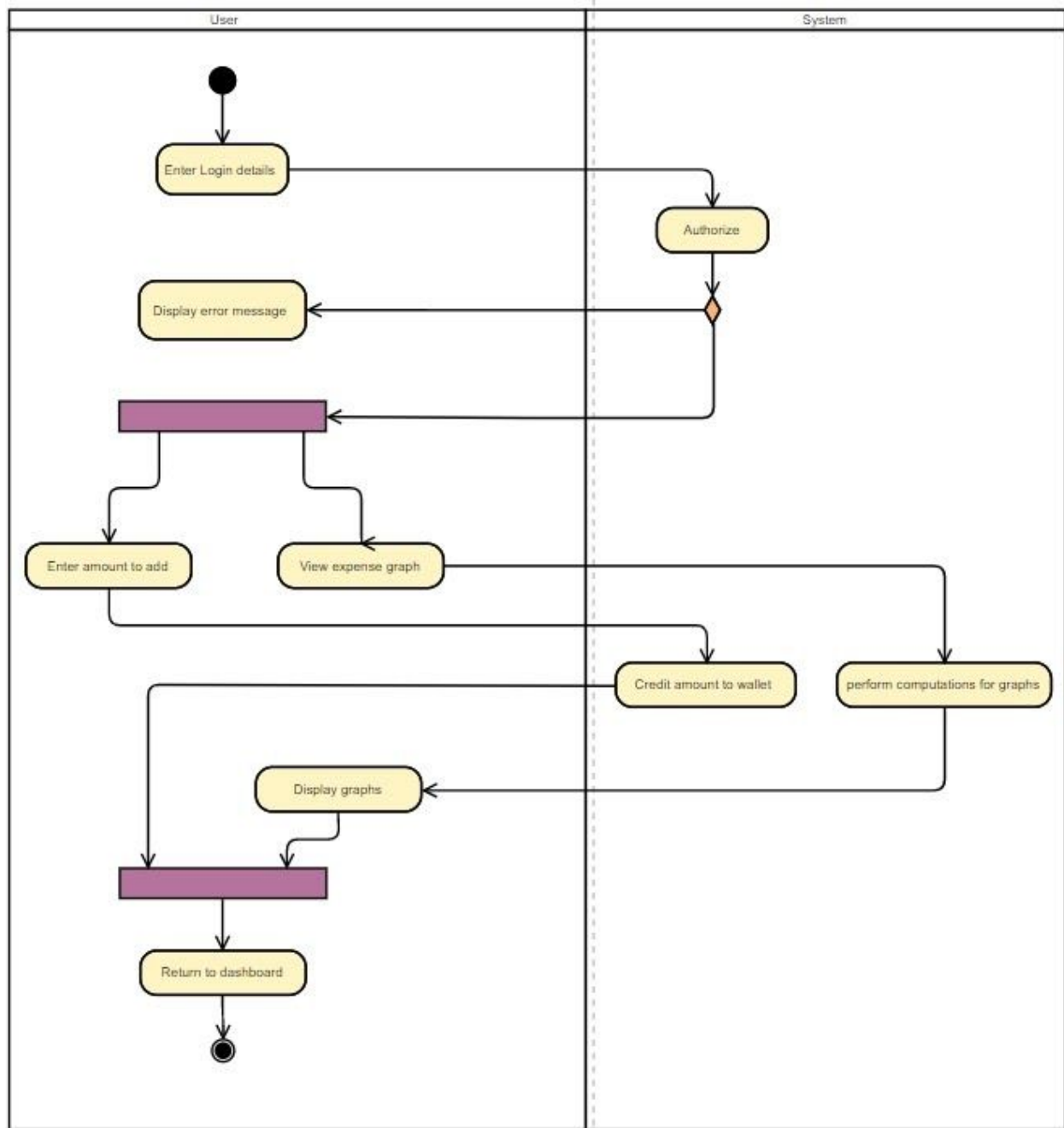
2) GROUP EVENT



3) DAILY EXPENSE



4) MANAGE WALLET



Conclusion:

We created Activity Diagram using the UML 2.0 notations for major functionalities of our project (Money Management System).