Experiment 4

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Aim: Develop Activity Diagram and DFD (up to 2 levels) for the project -

Theory: The UML Activity Diagram

→ Steps

1. User login
2. User registration
3. Post content
4. Check for legitemacy of post by admin.
5. Admin approves or deletes the post.
6. The editor can officially add a post.
7. Eventually we have the new posts.
8. Now we have the recommender system.
9. Along with that geolocation feature.
10. We can like/dislike posts
11. comment for the same.
12. Stop.

In this the swim lanes are basically the

→ User

→ Post (can be added seperately)

→ The DFD UML diagram

The level 0 diagram tells us

1. User add location preferences
2. Create posts on the platform
3. The database admin will verify the details.
4. Eventually user gets location specific recommendations

The level 1 diagram tells.

1. User login and authentication
2. User post information
3. Verify for appropriate posts or delete them
4. Verify and approve news and post them
5. We fetch news from API and provide it to user based on recommendations
6. Data collection via ML/model to help in data analysis.

Conclusion- Hence we drew the DFD and activity diagram for our case study.

Software Engineering

Experiment-4

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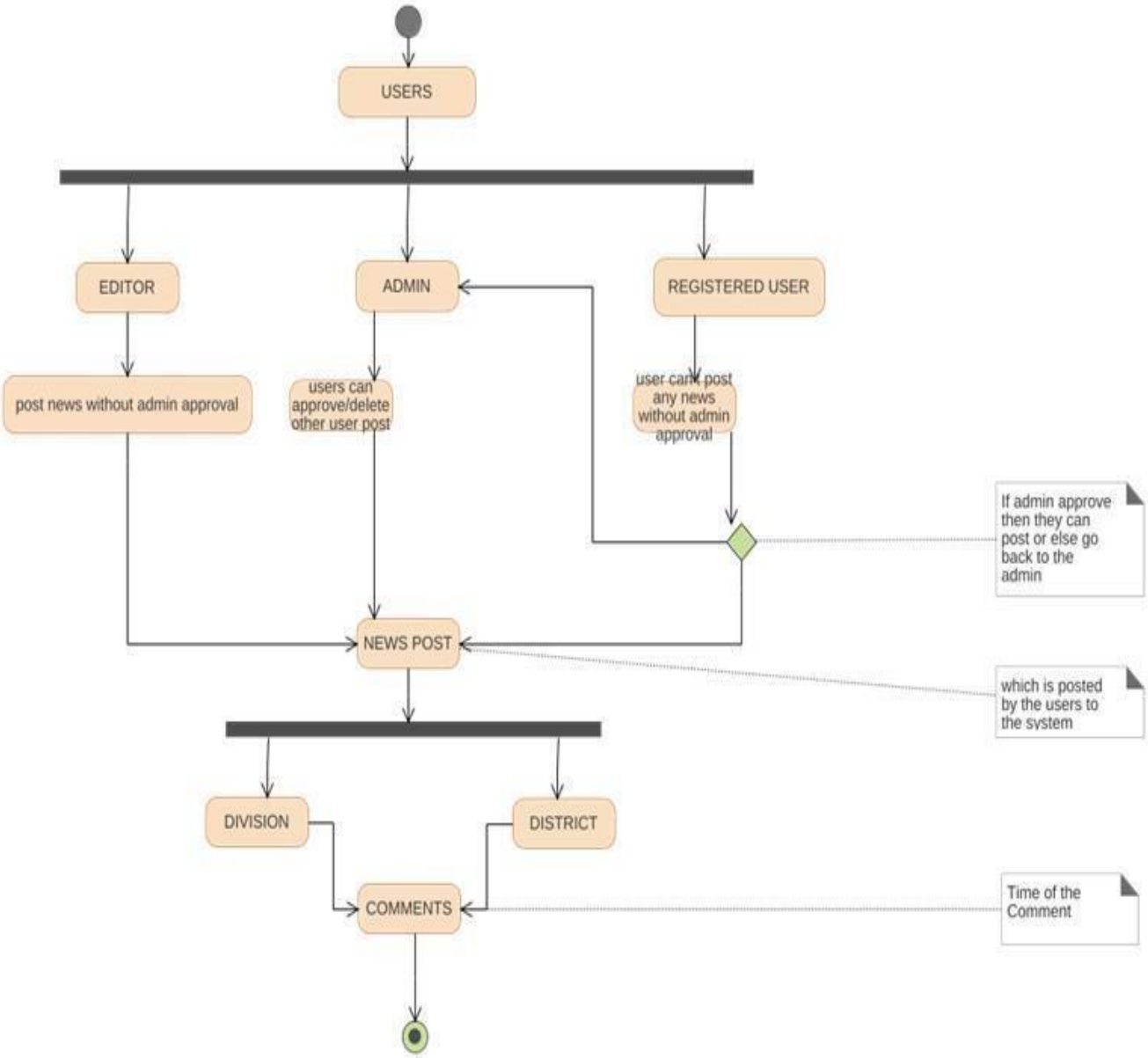
AIM: Develop Activity diagram and DFD (up to 2 levels) for the project.

THEORY:

Activity Diagram:

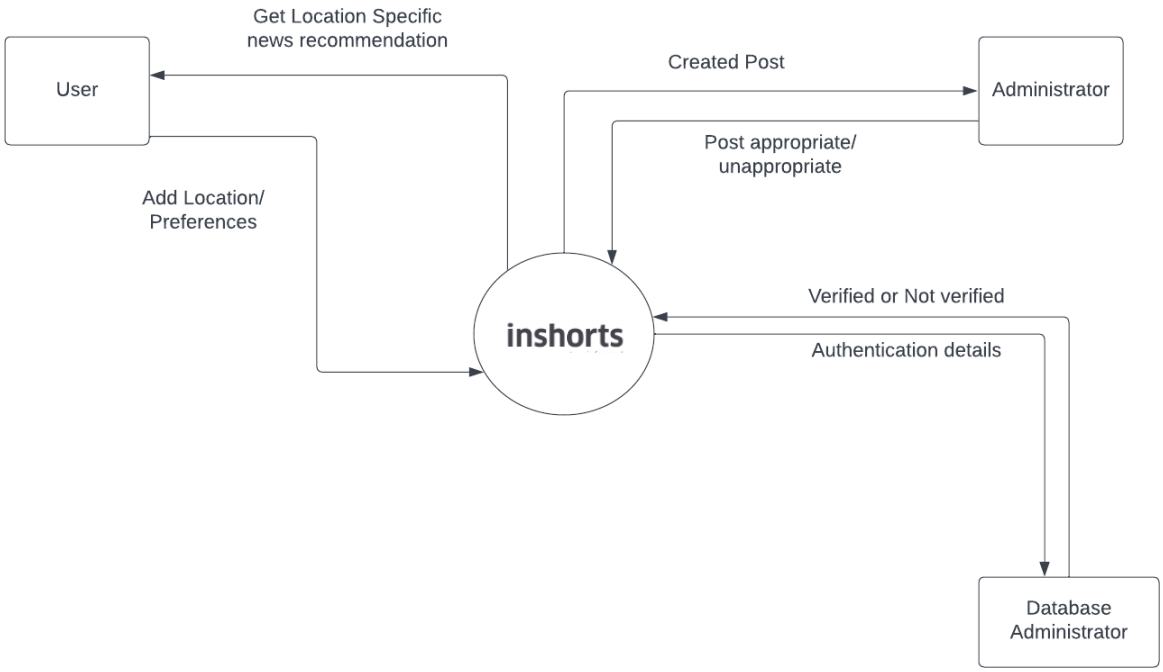
A UML activity diagram depicts the dynamic behavior of a system or part of a system through the flow of control between actions that the system performs. It is similar to a flowchart except that an activity diagram can show concurrent flows. The main component of an activity diagram is an action node, represented by a rounded rectangle, which corresponds to a task performed by the software system. Arrows from one action node to another indicate the flow of control. That is, an arrow between two action nodes means that after the first action is complete the second action begins. A solid black dot forms the initial node that indicates the starting point of the activity. A black dot surrounded by a black circle is the final node indicating the end of the activity. A fork represents the separation of activities into two or more concurrent activities. It is drawn as a horizontal black bar with one arrow pointing to it and two or more arrows pointing out from it. Each outgoing arrow represents a flow of control that can be executed concurrently with the flows corresponding to the other outgoing arrows. These concurrent activities can be performed on a computer using different threads or even using different computers.


USERS
EDITOR
ADMIN
REGISTERED USER
post news without admin approval
users can approve/delete other user post
user can't post any news without admin approval
If admin approve then they can post or else go back to the admin
NEWS POST
which is posted by the users to the system
DIVISION
DISTRICT
COMMENTS
Time of the Comment

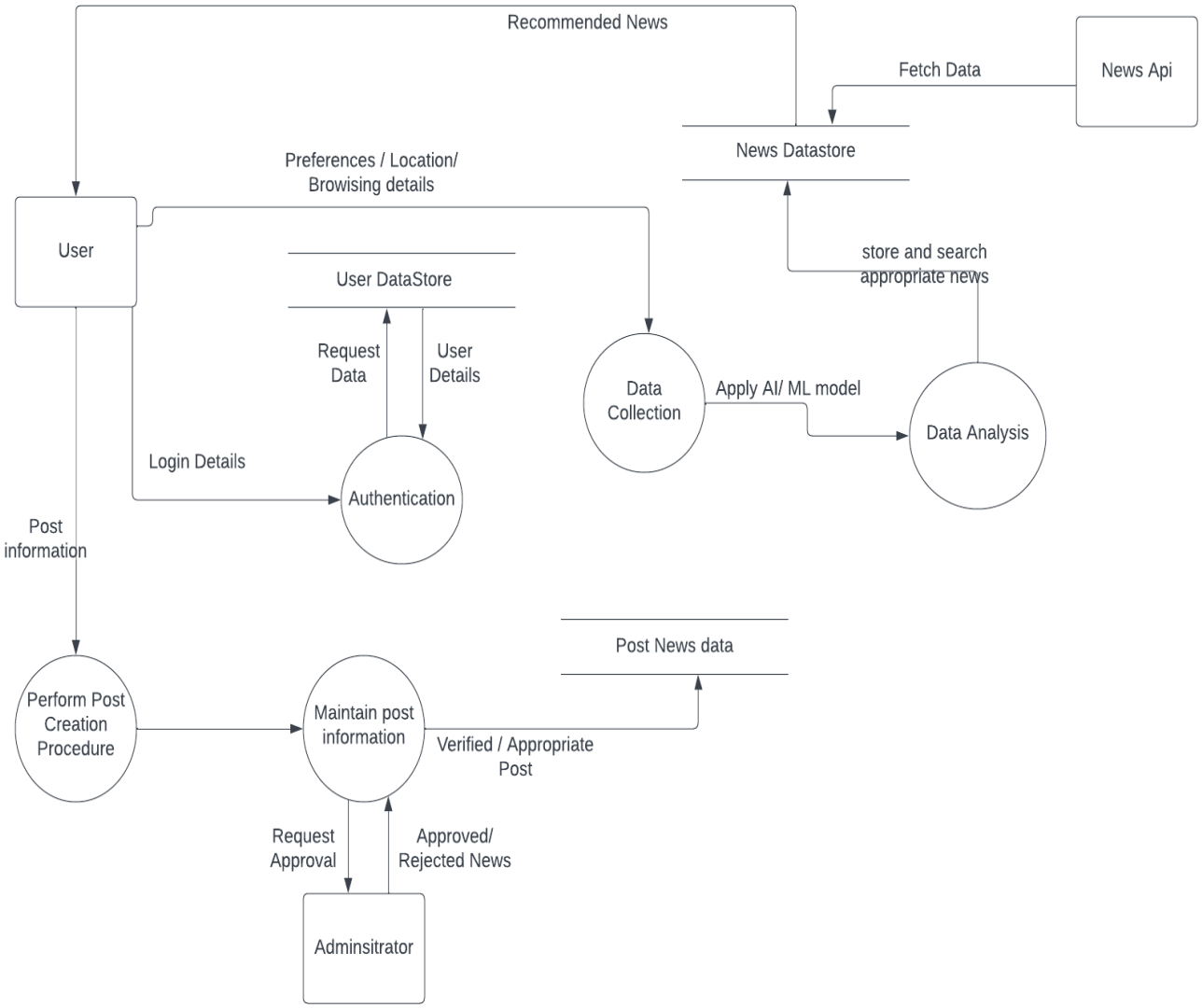
Data Flow Diagrams:

The data flow diagram enables you to develop models of the information domain and functional domain. As the DFD is refined into greater levels of detail, you perform an implicit functional decomposition of the system. At the same time, the DFD refinement results in a corresponding refinement of data as it moves through the processes that embody the application.

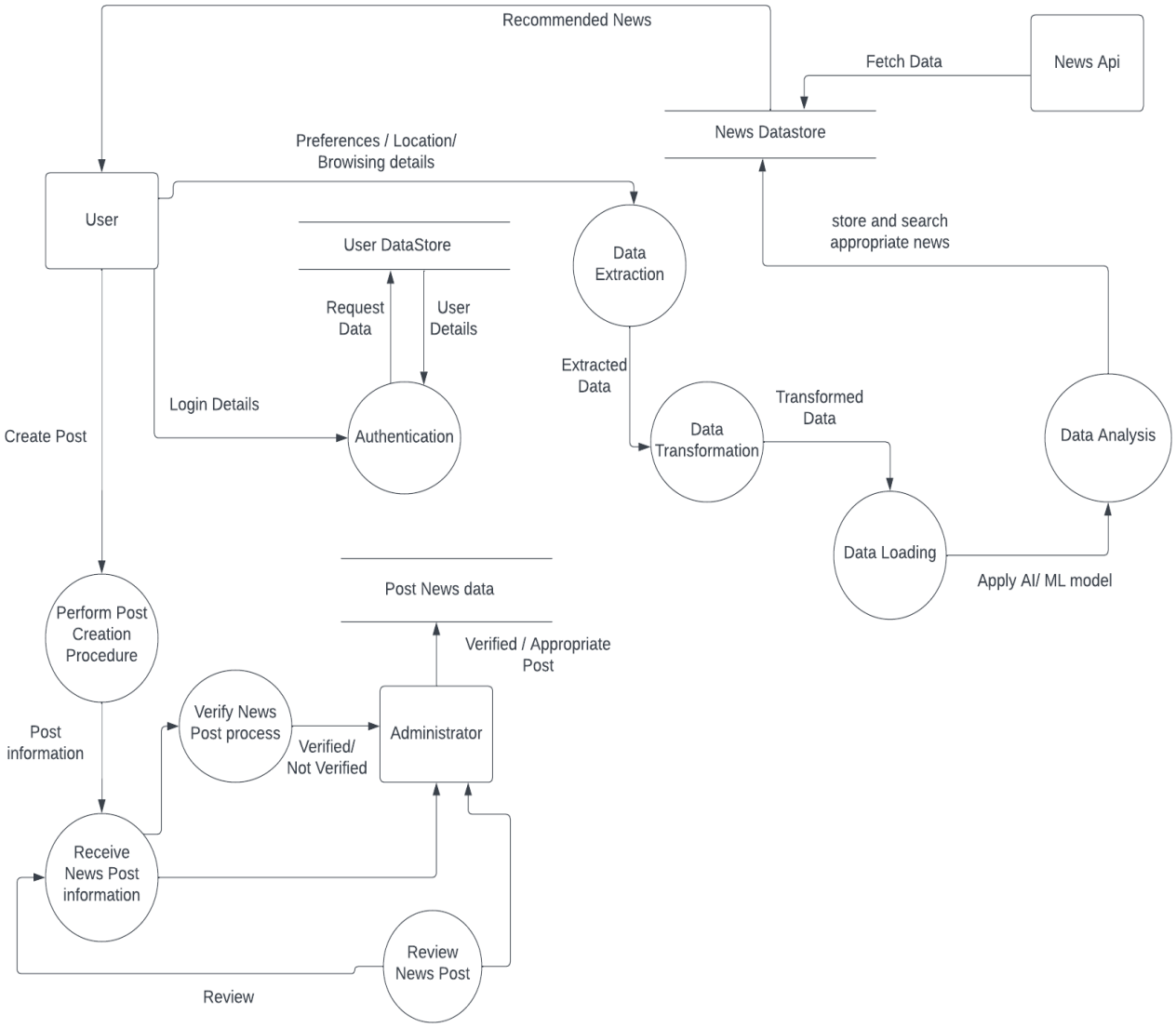
DFD Level 0 Diagram



DFD Level 1 Diagram



DFD Level 2 Diagram



CONCLUSION:

Thus, we are able to draw Activity and Swim lane diagram for our case study. We are also able to depict the flow of data through various processes through different level DFDs.