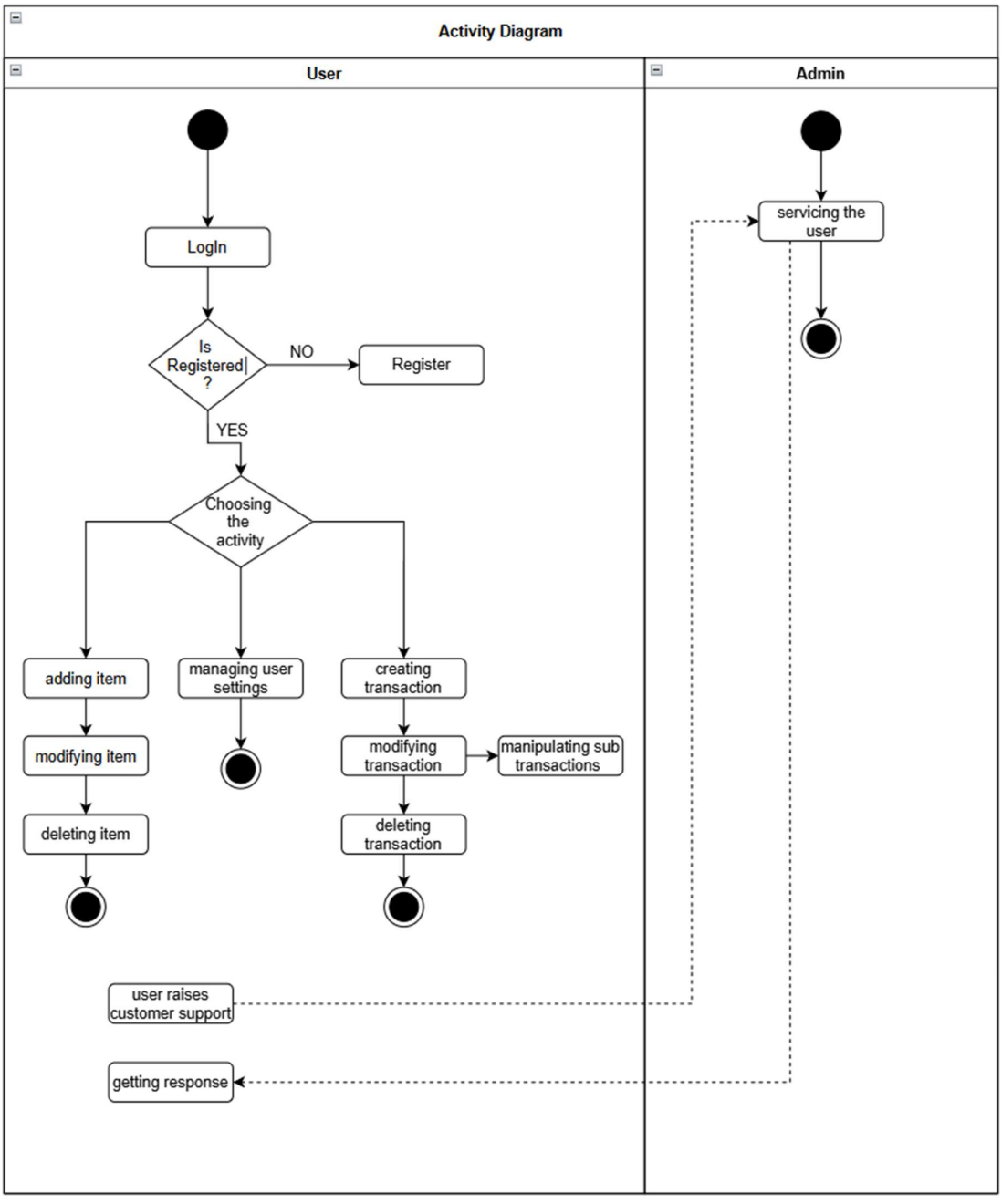
Practical – 5

AIM: Draw Activity diagram for selected application.

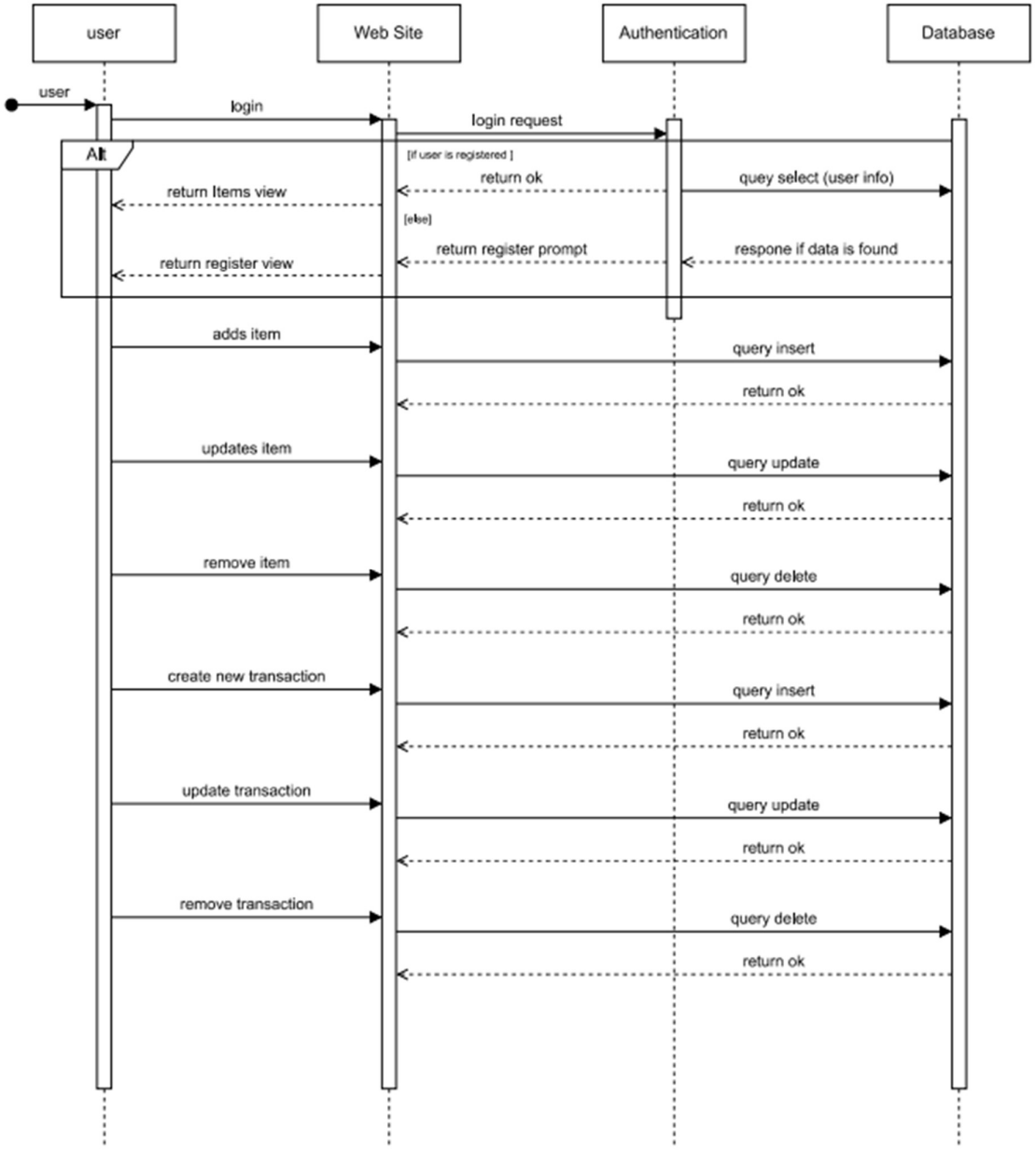
Activity Diagram:



Practical – 6

AIM: Draw sequence diagram for selected application.

Sequence Diagram:

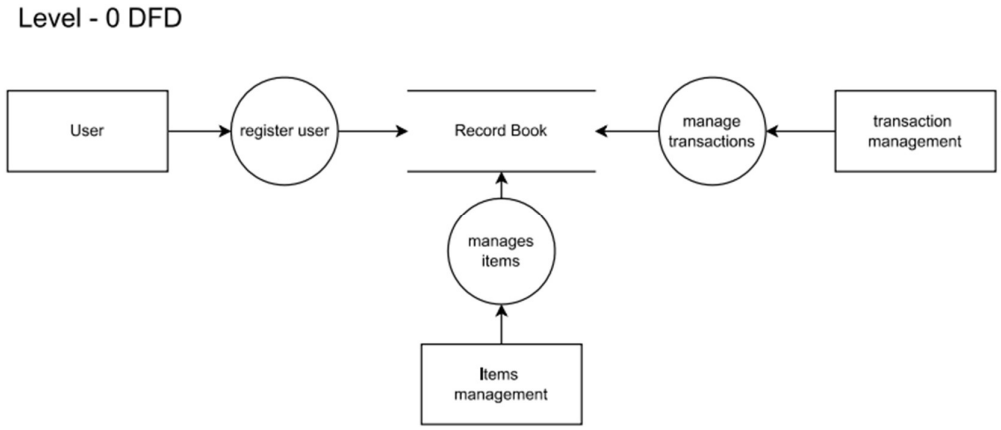


Practical – 7

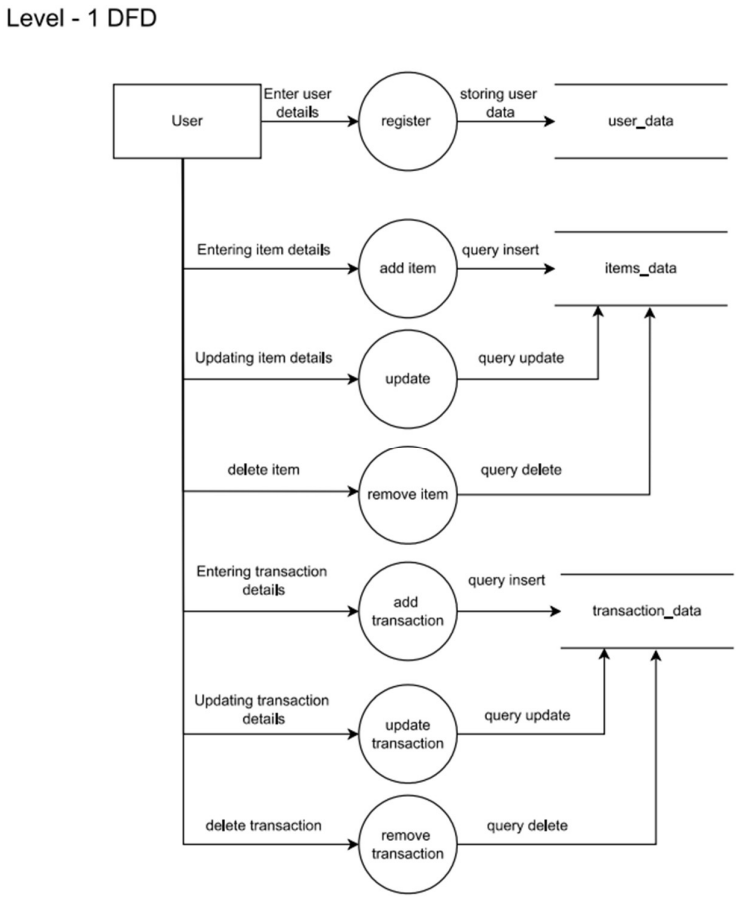
AIM: Draw Data Flow Diagram (DFD) for selected application.

Data Flow Diagram:

- **Level 0:**

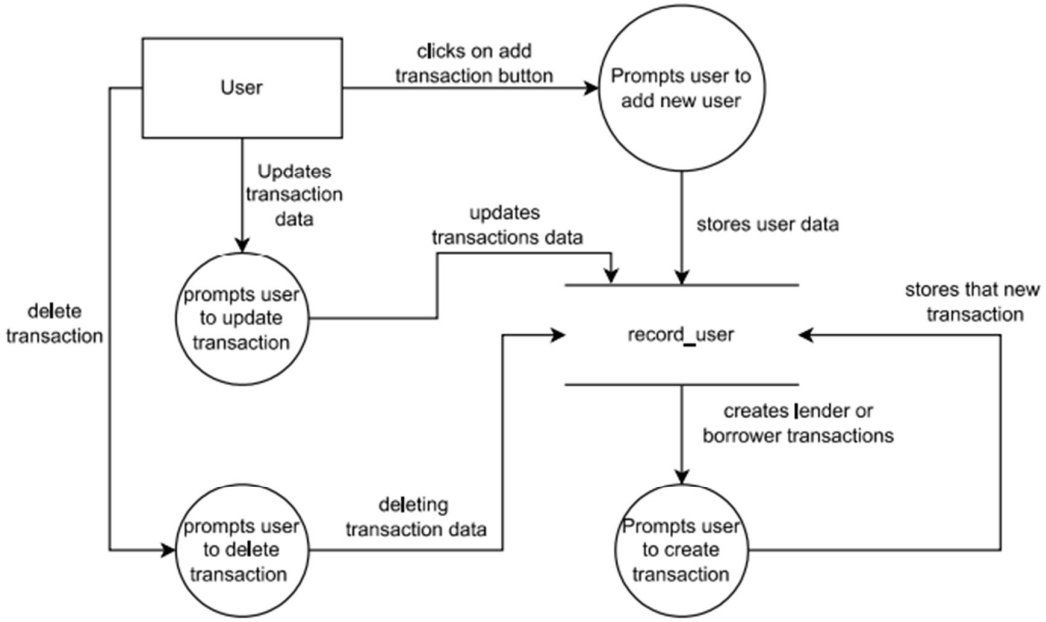


- **Level 1:**

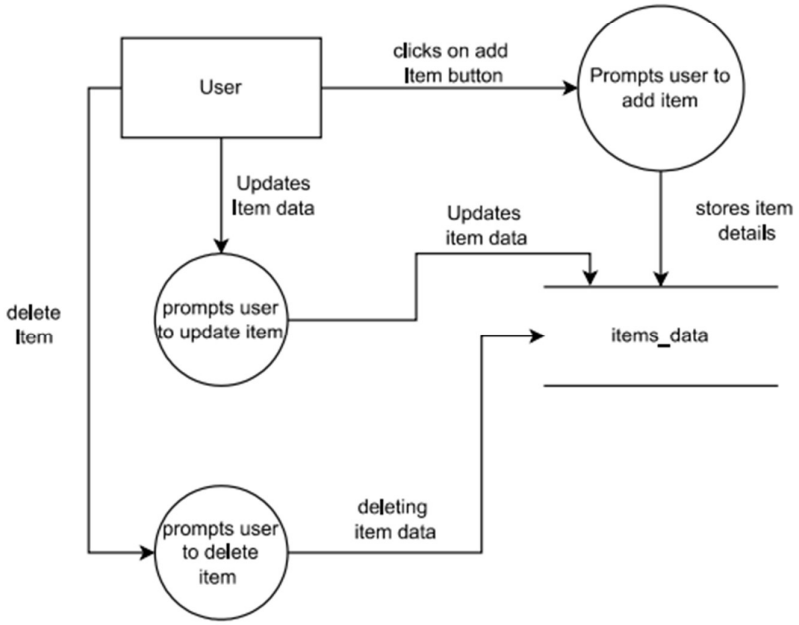


- **Level 2:**

Level - 2 DFD for Transaction management



Level - 2 DFD for Item management



Practical – 8

AIM: Apply FP oriented estimation model for selected application.

Step 1: Identify the Functional Components

External Inputs (EI) – Inputs from the user:

- User login
- User registration
- Data entry
- Updating data

Total EI = 4

External Outputs (EO) – Outputs generated by the system:

- Generate report
- Display user details
- Dashboard statistics

Total EO = 3

User Inquiries (UI) – Interactive data retrieval:

- Search
- Filter

Total UI = 2

Internal Logical Files (ILF) – Internal databases:

- User database
- Activity log
- System configuration/settings

Total ILF = 3

External Interface Files (EIF) – External data sources used:

- External authentication system

Total EIF = 1

Step 2:Assign Weights

(Assumed complexity = average unless stated)

Component Type	Count	Complexity	Weight	Total
EI	4	Average	5	20
EO	3	Average	5	15
UI	2	Low	4	8
ILF	3	Average	10	30
EIF	1	Average	7	7

Step 3: Calculate Unadjusted Function Points (UFP)

UFP = 20 + 15 + 8 + 30 + 7 = 80

Step 4: Apply Value Adjustment Factor (VAF)

Assume VAF = 1.1 (based on general system characteristics)

Step 5: Calculate Adjusted Function Points (AFP)

AFP = UFP × VAF = 80 × 1.1 = 88

Step 6: Estimate Effort

Assume Productivity rate = 20 function points/person-month

Effort = AFP / Productivity rate = 88 / 20 = 4.4 ≈ 4 person-months