Indian Institute of Technology Indore

IITI Leave Processing System

CS258: Software Engineering Lab

Design Artefacts

Submitted By:
Aditya Jain
Sheregar Kailas Nagaraj
Nitish Kumar Raj
K Ganesh Raj
Vahid C

Course Instructor
Dr. Abhishek Srivastava

February 9, 2017

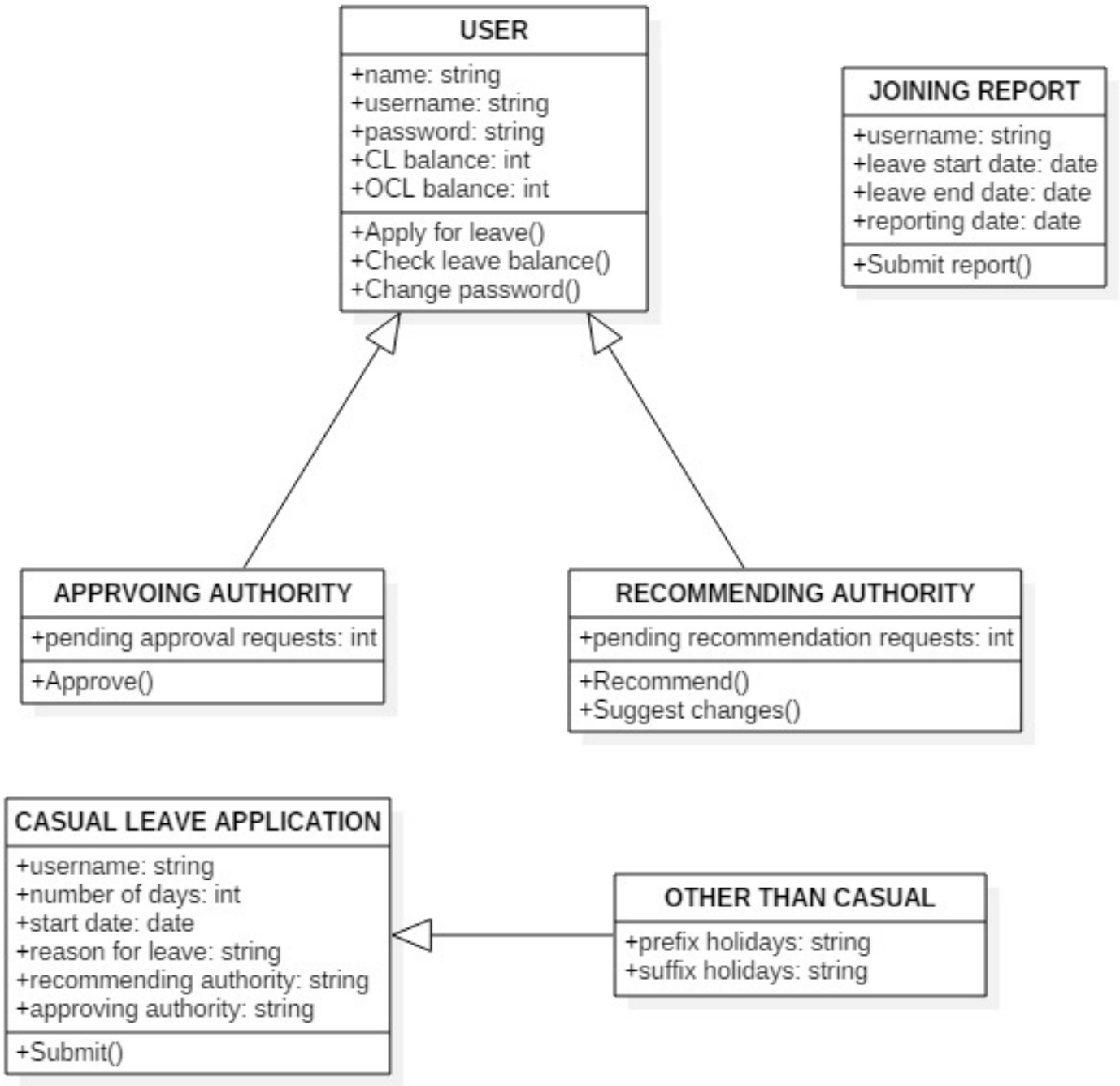
Use-Case Diagram

IITI Leave Processing System

IITI Leave Processing System
Administrator
Manage Database
« include »
Modify Database
« include »
View Database
Past Recommendations
Recommending Authority
Pending Recommendations
« extend »
Recommend Leave
Pending Recommendations
Apply for Leave
Joining Report
Applicant
View Leave Balance
Manage Account
Pending Approvals
« extend »
Approve Leave
Pending Approvals
Approving Authority
Past Approvals

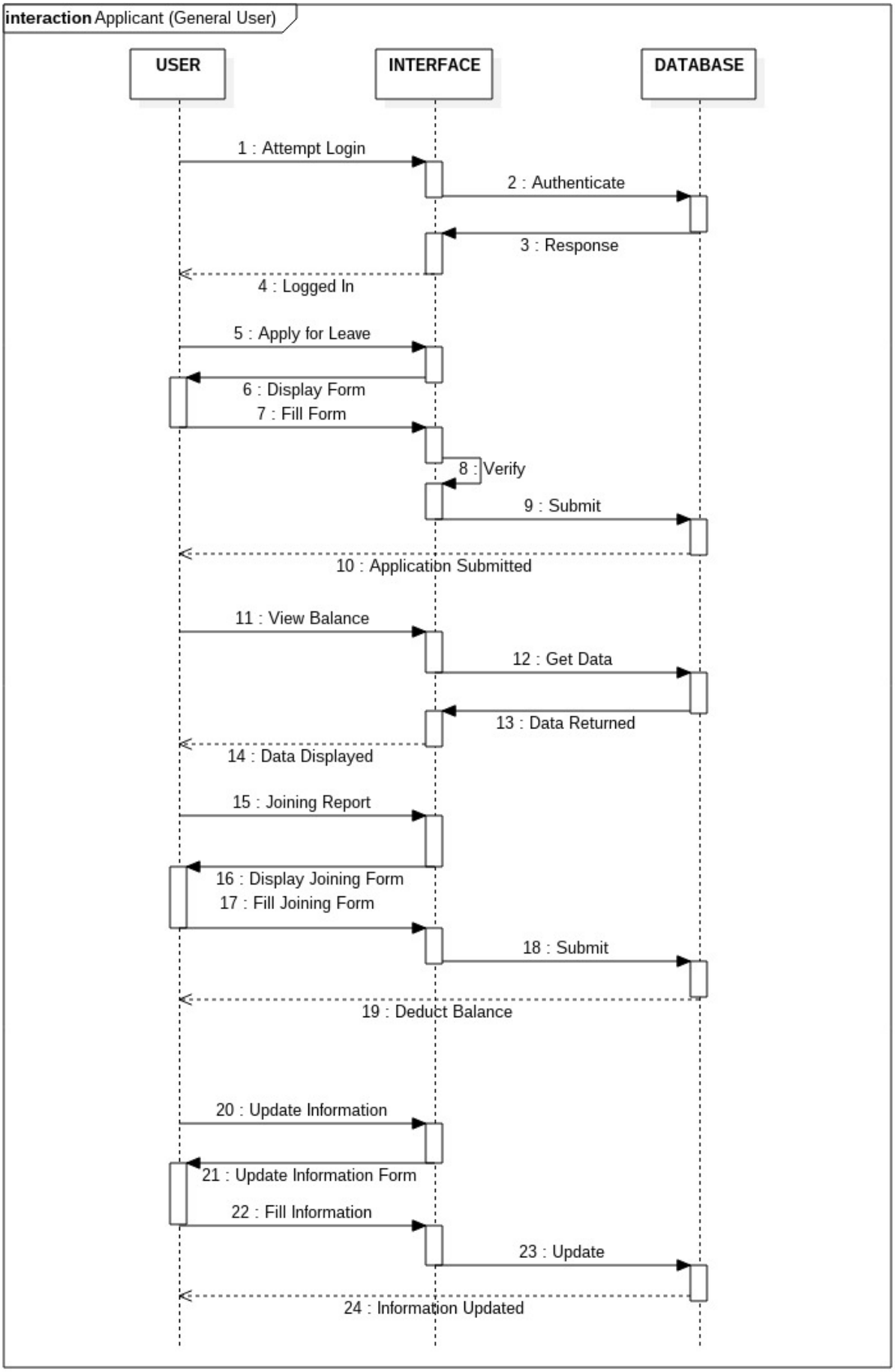
Class Diagram

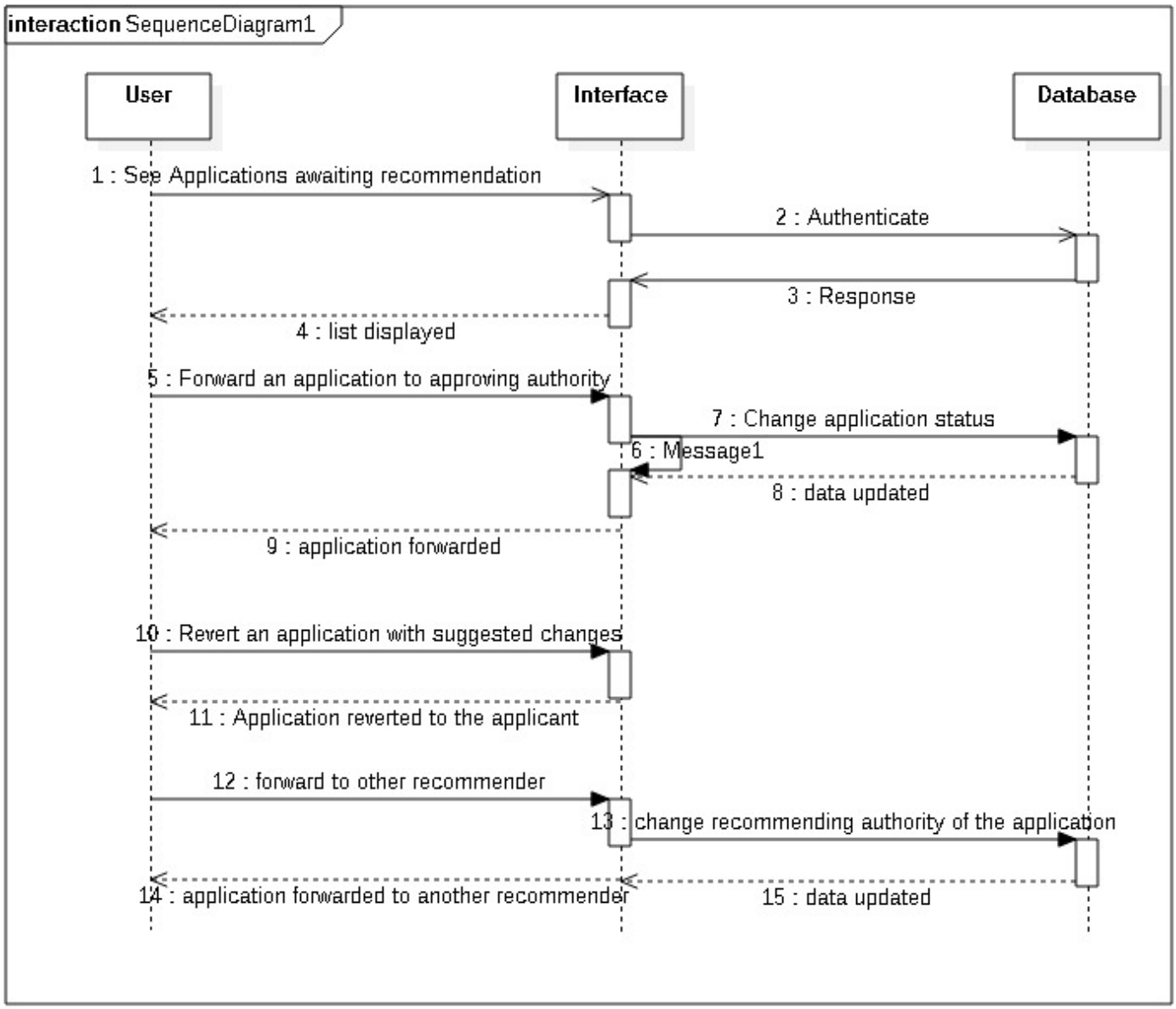
IITI Leave Processing System

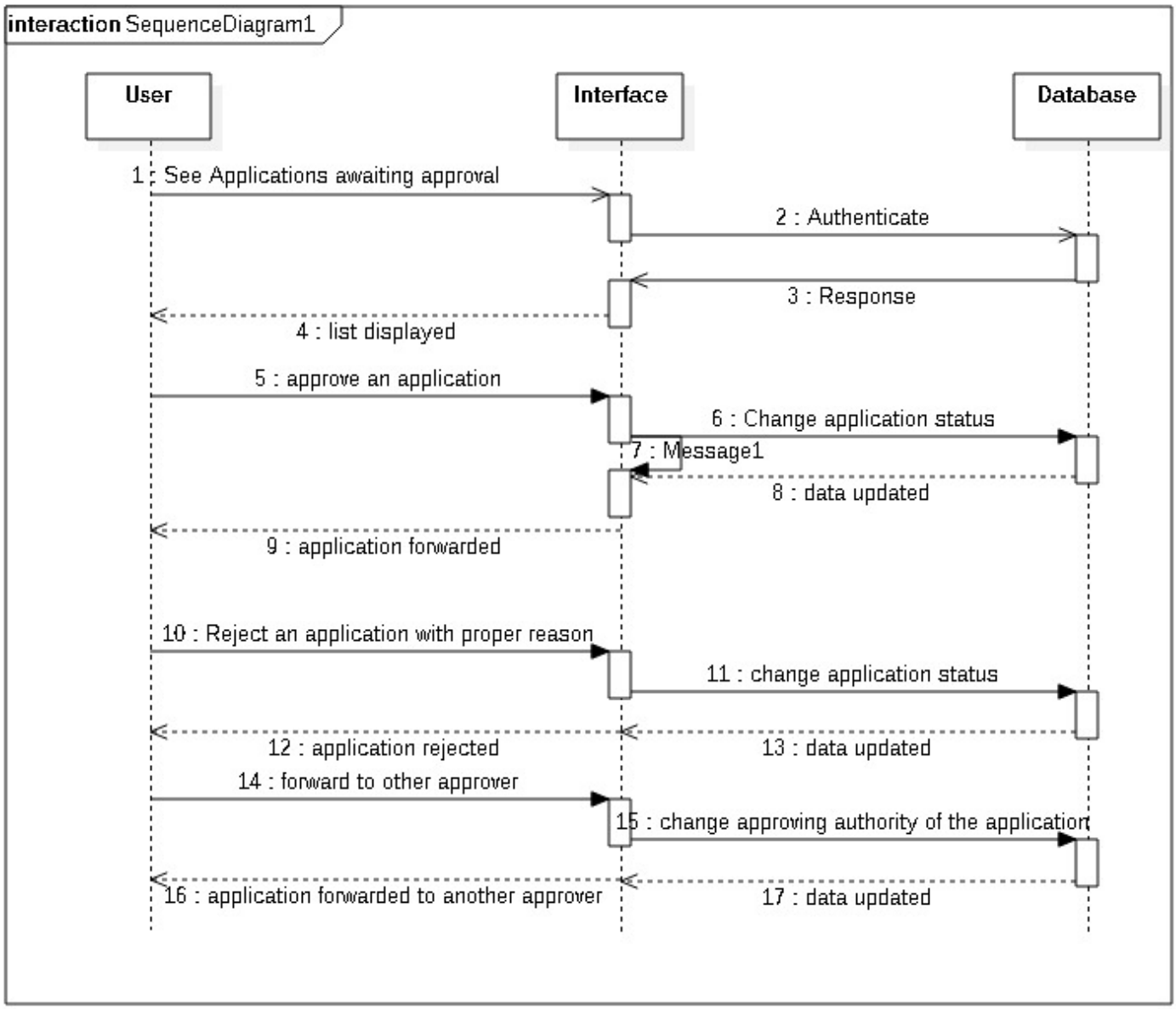

USER
+name: string
+username: string
+password: string
+CL balance: int
+OCL balance: int
+Apply for leave()
+Check leave balance()
+Change password()
JOINING REPORT
+username: string
+leave start date: date
+leave end date: date
+reporting date: date
+Submit report()
APPRVOING AUTHORITY
+pending approval requests: int
+Approve()
RECOMMENDING AUTHORITY
+pending recommendation requests: int
+Recommend()
+Suggest changes()
CASUAL LEAVE APPLICATION
+username: string
+number of days: int
+start date: date
+reason for leave: string
+recommending authority: string
+approving authority: string
+Submit()
OTHER THAN CASUAL
+prefix holidays: string
+suffix holidays: string

Sequence Diagrams

IITI Leave Processing System

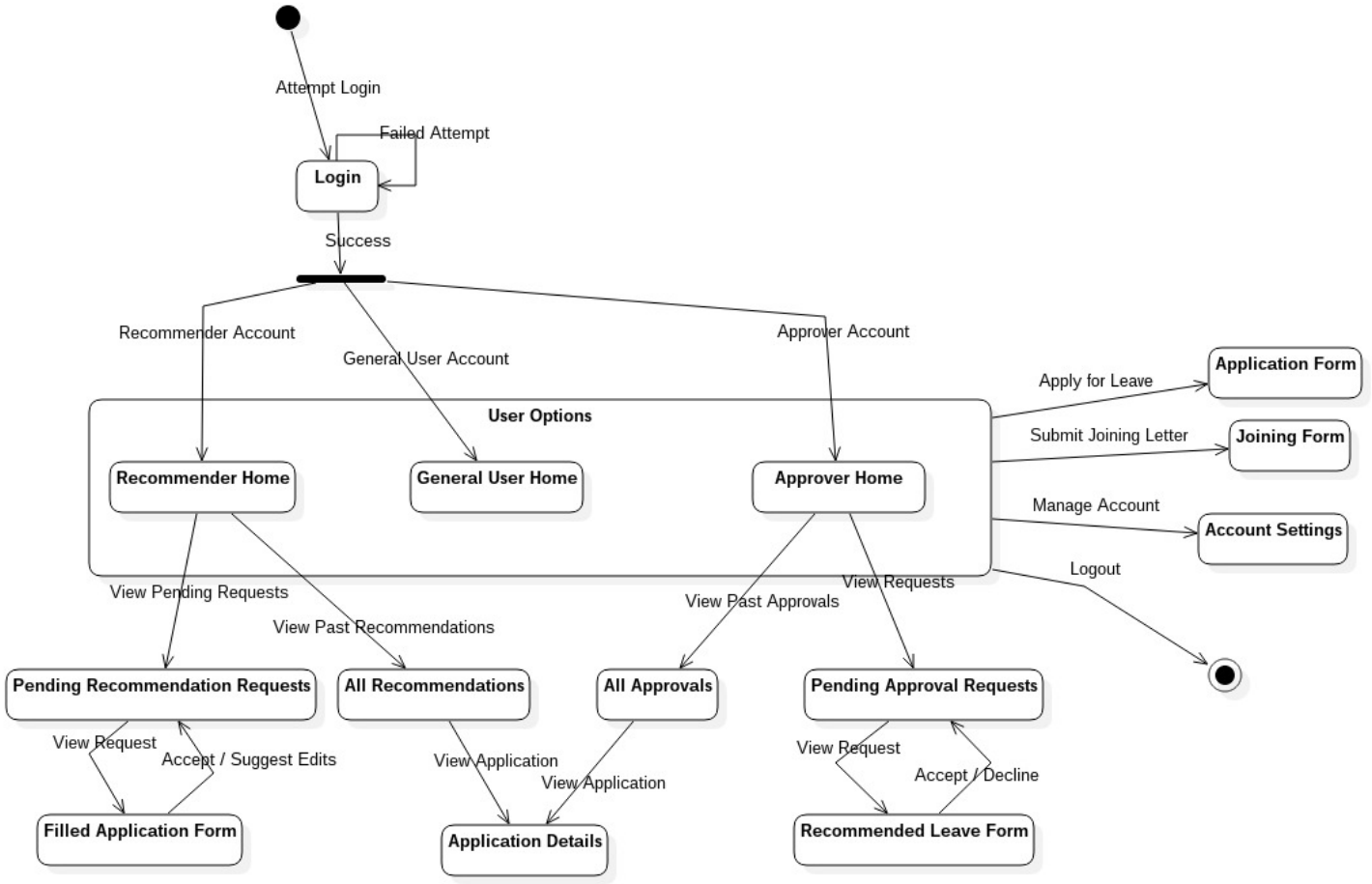

interaction Applicant (General User)
USER
INTERFACE
DATABASE
1 : Attempt Login
2 : Authenticate
3 : Response
4 : Logged In
5 : Apply for Leave
6 : Display Form
7 : Fill Form
8 : Verify
9 : Submit
10 : Application Submitted
11 : View Balance
12 : Get Data
13 : Data Returned
14 : Data Displayed
15 : Joining Report
16 : Display Joining Form
17 : Fill Joining Form
18 : Submit
19 : Deduct Balance
20 : Update Information
21 : Update Information Form
22 : Fill Information
23 : Update
24 : Information Updated


interaction SequenceDiagram1
User
Interface
Database
1 : See Applications awaiting recommendation
2 : Authenticate
3 : Response
4 : list displayed
5 : Forward an application to approving authority
7 : Change application status
6 : Message1
8 : data updated
9 : application forwarded
10 : Revert an application with suggested changes
11 : Application reverted to the applicant
12 : forward to other recommender
13 : change recommending authority of the application
14 : application forwarded to another recommender
15 : data updated


interaction SequenceDiagram1
User
Interface
Database
1 : See Applications awaiting approval
2 : Authenticate
3 : Response
4 : list displayed
5 : approve an application
6 : Change application status
7 : Message1
8 : data updated
9 : application forwarded
10 : Reject an application with proper reason
11 : change application status
12 : application rejected
13 : data updated
14 : forward to other approver
15 : change approving authority of the application
16 : application forwarded to another approver
17 : data updated

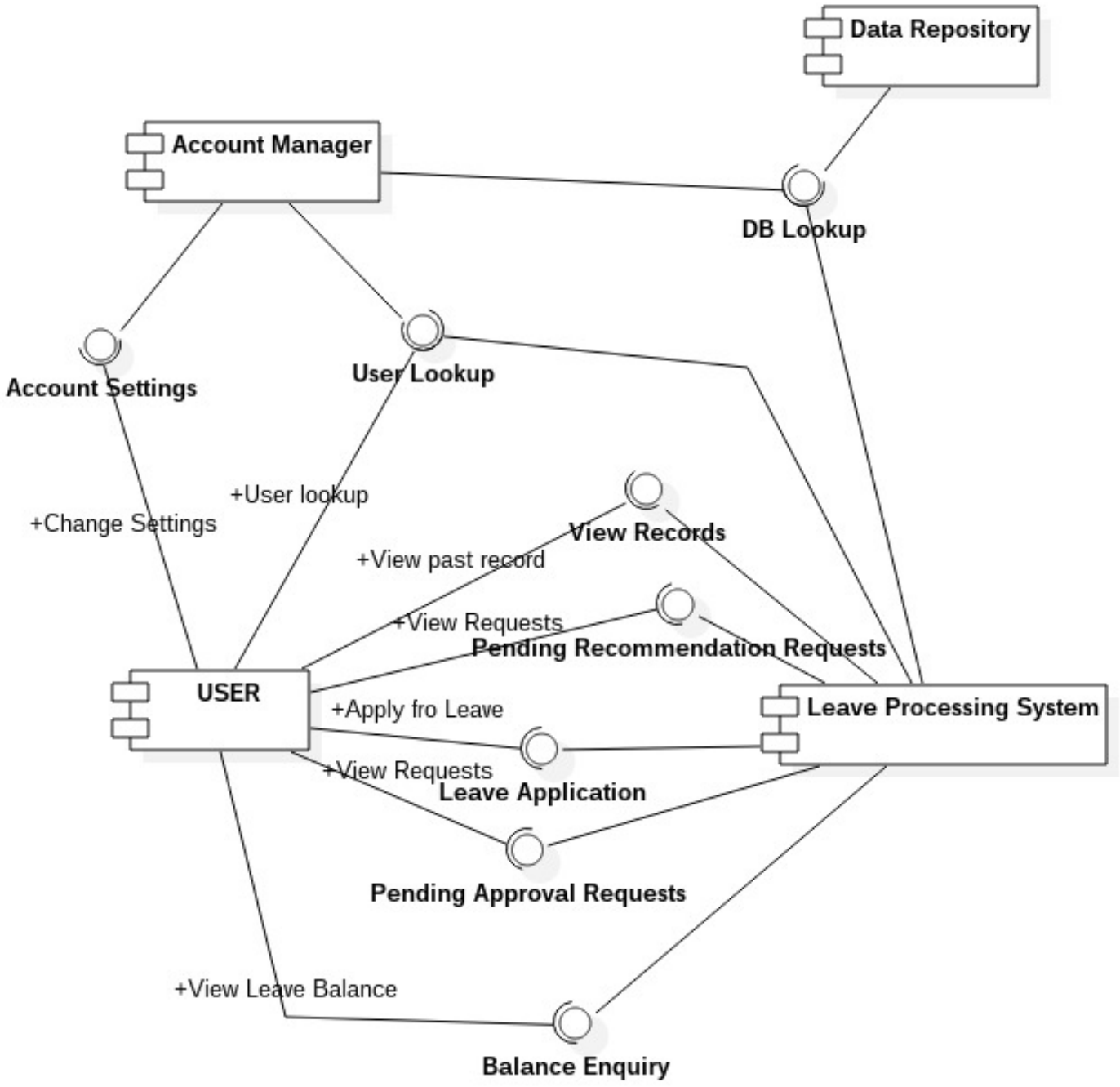
State Diagram

IITI Leave Processing System


Attempt Login
Failed Attempt
Login
Success
Recommender Account
General User Account
Approver Account
User Options
Recommender Home
General User Home
Approver Home
Apply for Leave
Application Form
Submit Joining Letter
Joining Form
Manage Account
Account Settings
Logout
View Pending Requests
View Past Recommendations
View Past Approvals
View Requests
Pending Recommendation Requests
All Recommendations
All Approvals
Pending Approval Requests
View Request
Accept / Suggest Edits
View Application
View Application
View Request
Accept / Decline
Filled Application Form
Application Details
Recommended Leave Form

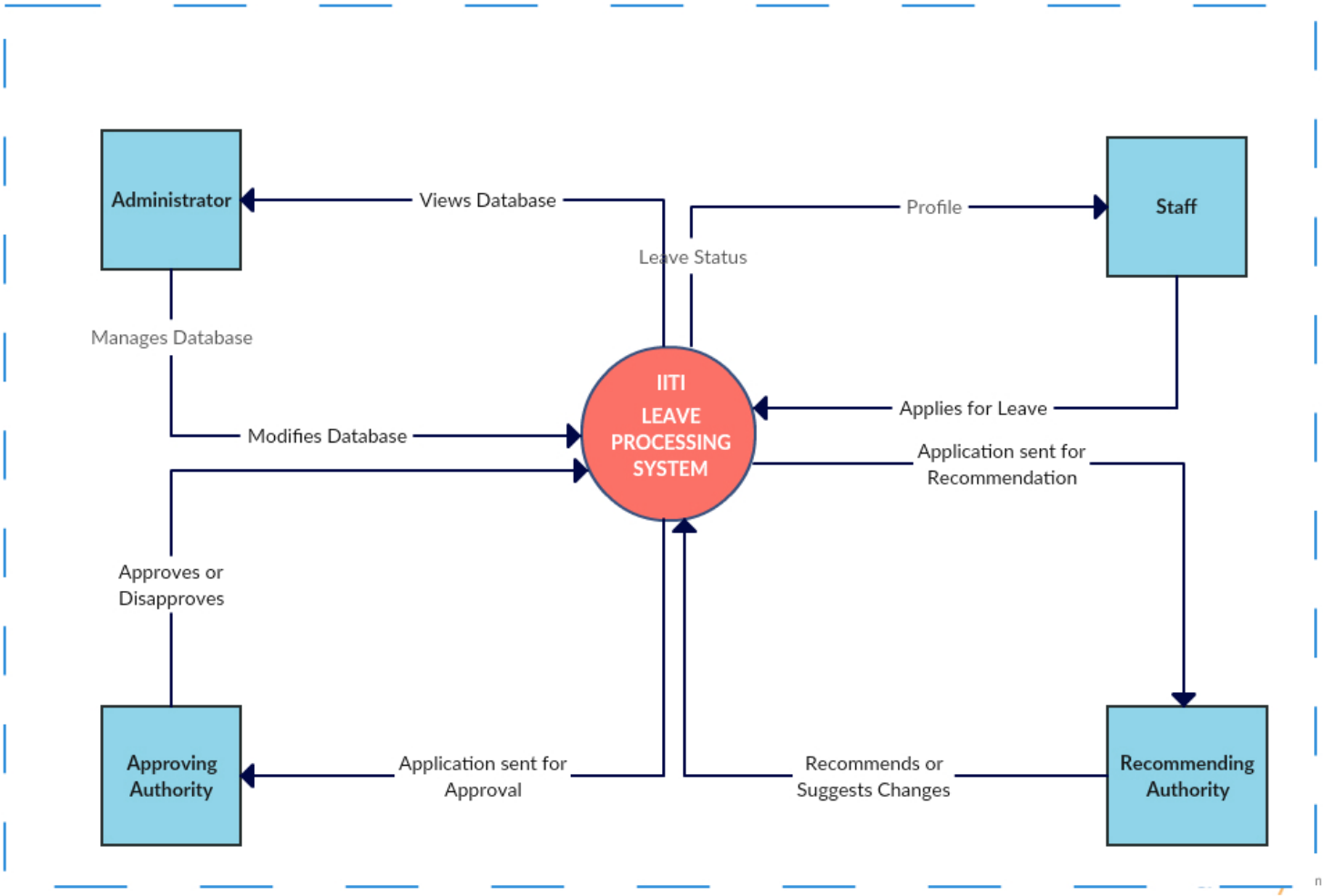
Component Diagram

IITI Leave Processing System


Data Repository
Account Manager
DB Lookup
Account Settings
User Lookup
+User lookup
+Change Settings
View Records
+View past record
+View Requests
Pending Recommendation Requests
USER
+Apply fro Leave
Leave Processing System
+View Requests
Leave Application
Pending Approval Requests
+View Leave Balance
Balance Enquiry

Context Diagram

IITI Leave Processing System


Administrator
Views Database
Profile
Staff
Leave Status
Manages Database
IITI
LEAVE
PROCESSING
SYSTEM
Applies for Leave
Modifies Database
Application sent for
Recommendation
Approves or
Disapproves
Approving
Authority
Application sent for
Approval
Recommends or
Suggests Changes
Recommending
Authority