

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY BHAGALPUR, BIHAR



भारतीय सूचना प्रौद्योगिकी संस्थान भागलपुर
Indian Institute of Information Technology
Bhagalpur

VIDEO LIBRARY MANAGEMENT (VLM) SYSTEM USING OBJECT ORIENTED DESIGN

Step 1. Gather all requirement

- VLM allows user to see the video collection.
- VLM allows guest user to register in video library.
- VLM allows register user to rent video, return video, and cancel membership.
- VLM allows Librarian to add video, remove video, and see all user detail.

Assumption: For Minimum Viable Product (MVP)

- VLM has infinite supply of an added video.
- VLM allows only one Librarian in library.
- VLM allows only one account to a user.
- VLM allows only one video at a time for rent.
- On removal of a video its duplicate supply will also be removed.
- Register user can rent a video. But guest user are only allows to see video collection.
- We are not considering payment module for shake of simplicity.

Step 2. Create a USE – CASE diagram

Component of use case diagram:

System: it is application which we are developing.it is represented by rectangular box having application Name at the top.

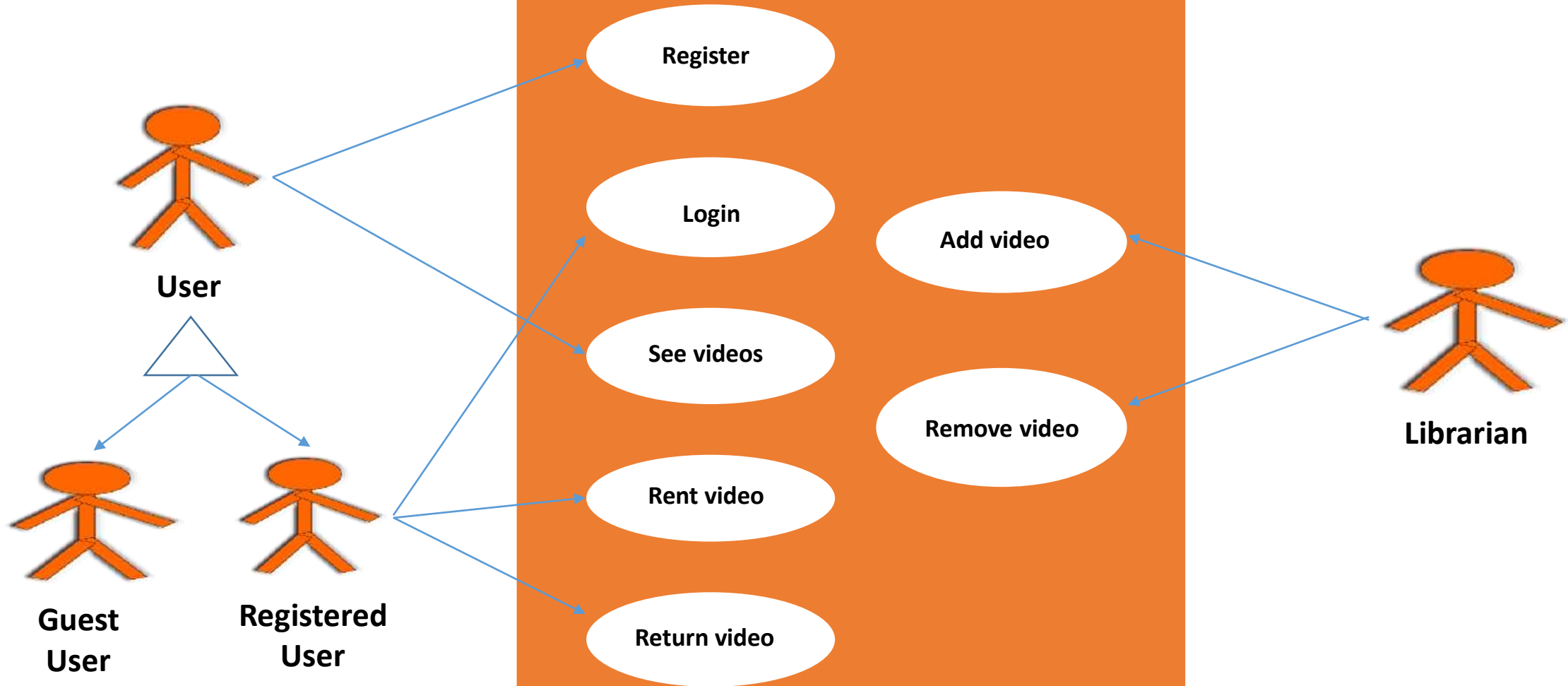
Actor: Any external agent that can interact with the system. It is represented by:



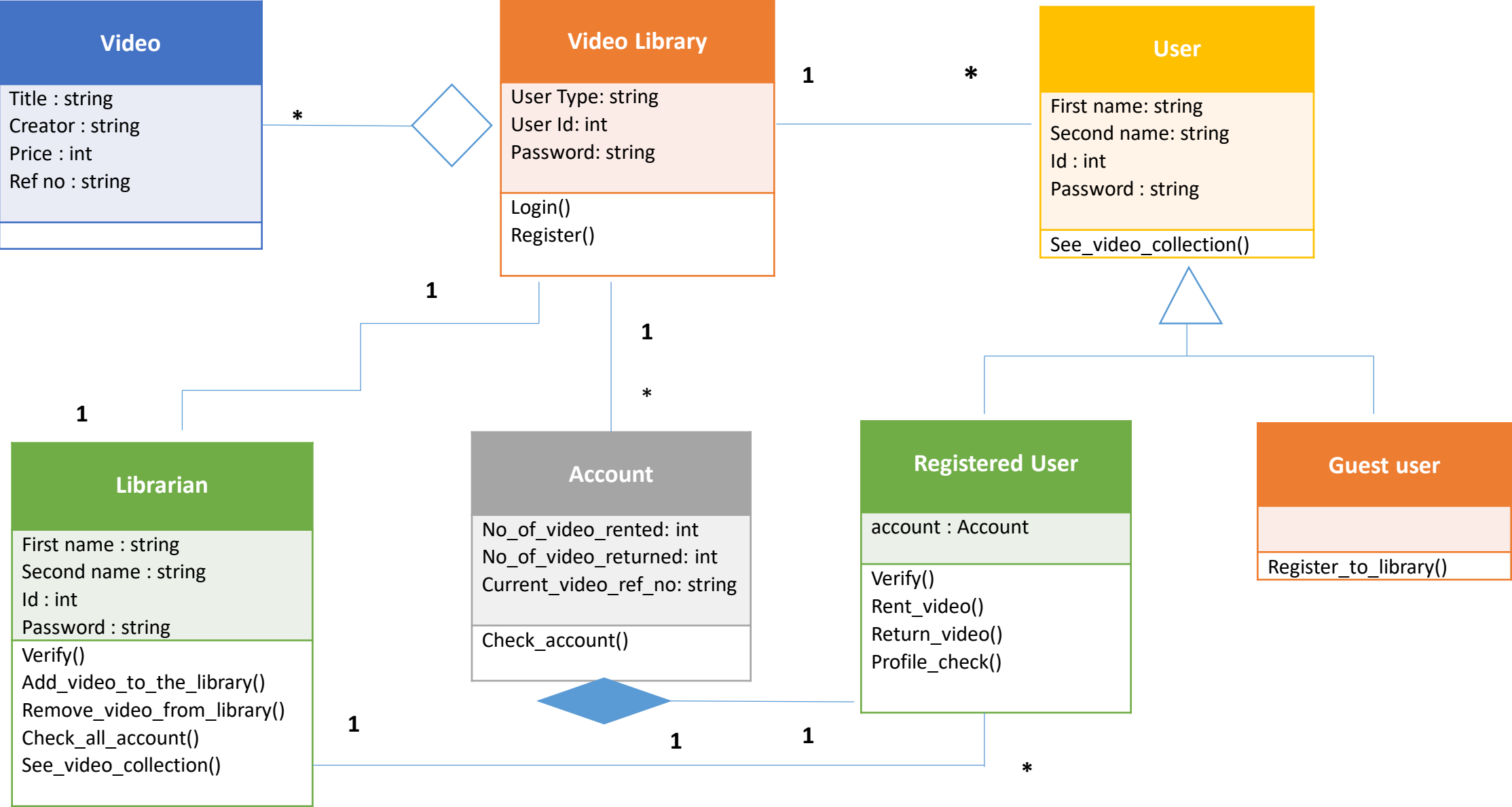
Use – case: it is represented by an oval shape and it shows some task within the system

Relationship: it represented as a solid arrow line from actor to use case .which shows how actor will be Interacting with system.

Video Library management System



Step 3. Class diagram



Step 4. Decision Tree and Data Flow diagram

Guest user:

Decision: Once the 'new member' possibility is chosen, the software system asks details concerning the member like the member's name, id, password, etc.

Action: If correct info is entered then a membership record for the member is made and add to the library data base.

Registered User:

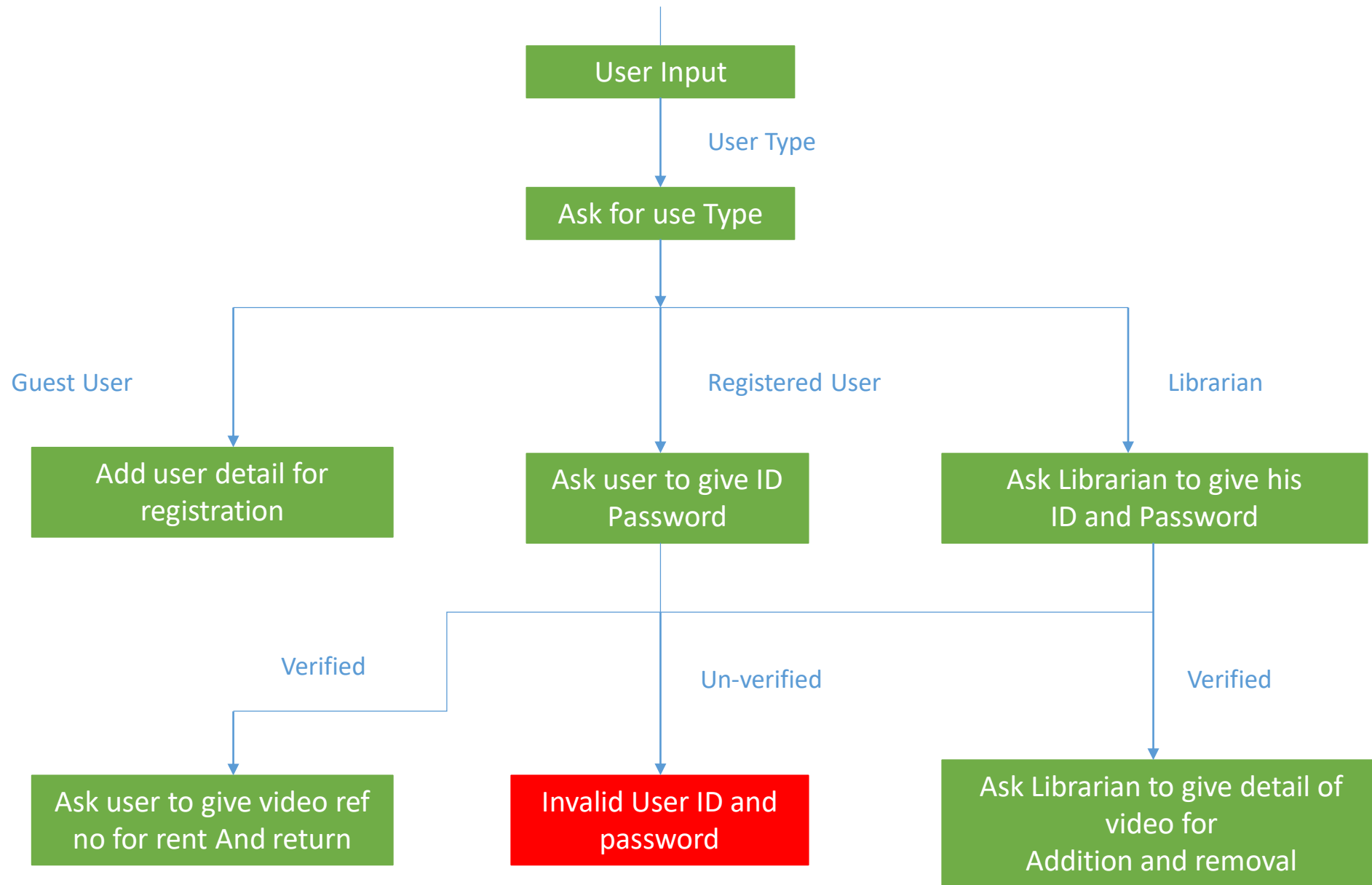
Decision: As users gives their type as a registered user. Then the software asks detail of account i.e. user id and password.

Action: If correct info is entered then, the software will allow user to see the collections of videos, took on rent and also returning the already taken video.

Librarian:

Decision: As users gives their type as a Librarian. Then the software asks detail of account i.e. user id and password.

Action: If correct info is entered then, the software will allow Librarian to see the all user detail, add video to Library, and remove video from library.

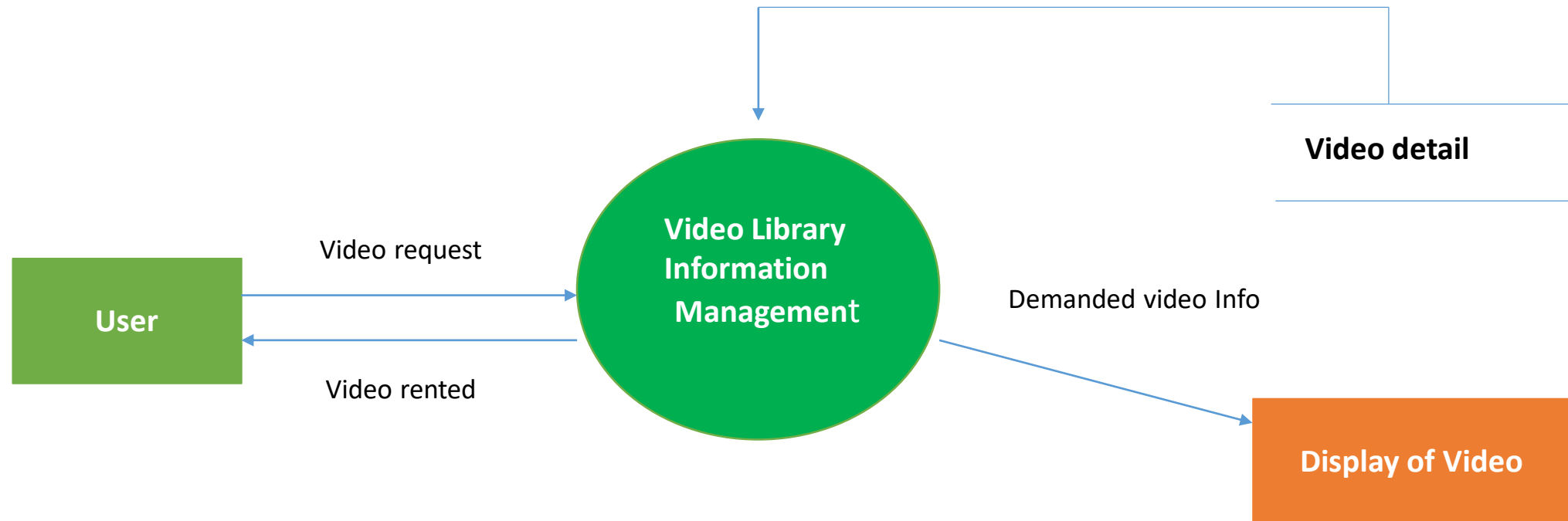


Data Flow Diagram

Data Flow Diagram depicts the flow of information and the transformation applied when a data moves in and out from a system. The overall system is represented and described using input, processing and output in the DFD.

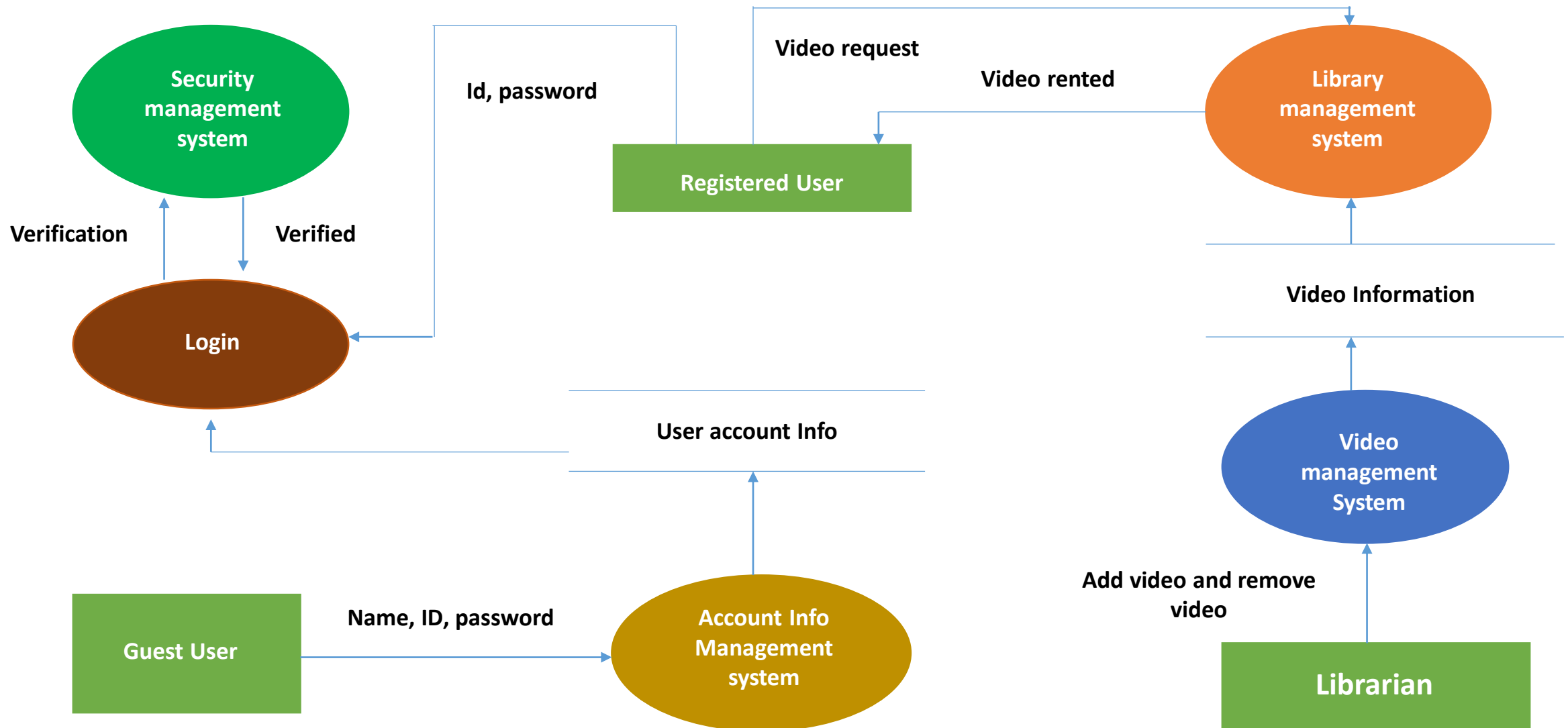
Level 0 :

It is also known as fundamental system model, or context diagram represents the entire software requirement as a single bubble with input and output data denoted by incoming and outgoing arrows.



Level – 1:

In 1-level DFD, a context diagram is decomposed into multiple bubbles/processes. In this level, we highlight the main objectives of the system and breakdown the high-level process of 0-level DFD into sub processes.



Step 5: Implementation and Testing

Code Link: <https://github.com/anil-kumar-1248/Video-Library-Management>

Output:

➤ Login Process of Registered User and Librarian

```
##### INSTRUCTION : DON'T GIVE SPACE BETWEEN THE INPUT TYPE STRING #####

****User Type****

1.for Librarian
2.for Register User
3.for Guest User
4.for coming out from project
Enter option : 1

Enter the id : 180101005
Enter the password : password

****Menu Driver****

1.For add video in Library
2.For remove video from library
3.For seeing collection of video from library
4.For seeing all user Detail
5.Main menu

Enter your option : █
```

```
****User Type****

1.for Librarian
2.for Register User
3.for Guest User
4.for coming out from project
Enter option : 2

Enter the User id : 180101005
Enter the Password : password

****MENU DRIVER****

1.For rent new video
2.For returning video
3.To look on library collection
4.To Cancel membership
5.To see User account detail
6.Main menu

Enter your own choice : █
```

- Guest User is registering in figure 1 and seeing video collection after registration

```
*****User Type*****
1.for Librarian
2.for Register User
3.for Guest User
4.for coming out from project
Enter option : 3

*****MENU DRIVER*****
1.For register
2.For see video collection
3.Main menu
Enter your option: 1

Enter the first name : Ravi
Enter the last name : Keer
Enter the id : 180101037
Enter the password : password

*****You have registered successfully*****
```

```
*****Menu Driver*****
1.For add video in Library
2.For remove video from library
3.For seeing collection of video from library
4.For seeing all user Detail
5.Main menu

Enter your option : 3

*****collections of videos in library*****

Title      : art_of_living
Creator    : manas
Ref no     : SB01
Price      : 500

Title      : Electronics_and_communicatio
Creator    : computer_vision
Ref no     : SB02
Price      : 500

Title      : computer_science
Creator    : computer_vision
Ref no     : SB03
Price      : 500

Title      : mistory_of_mecahtronics
Creator    : manas
Ref no     : SB04
Price      : 500

Title      : Electomagnetic_theory
Creator    : Maxwell
Ref no     : SB05
Price      : 10000
```




VIDEO LIBRARY MANAGEMENT SYSTEM

[EXPLORE →](#)

[HOME](#)[OUR VIDEO](#)[CONTACT](#)[HELP](#)[SIGN UP](#)[LOGIN](#)

GET AWESOME — VIDEO LIBRARY.

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley



Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley

[ACADEMICS →](#)

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley

[SEMINAR →](#)

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley

[WORKSHOP →](#)[About us](#)[Blog](#)[Press](#)[IOS App](#)[Andriod App](#)



COMPUTER SCIENCE — ENGINEERING

Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik.



Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik.



Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik.



Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik.



ELECTRONIC & COMMUNICATION — ENGINEERING

Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik.



Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik.



Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik.



Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik.



MECHATRONICS — ENGINEERING

Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik.



Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik.



Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik.



Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik. Lernaktivitäten in der Informatik und der Elektrotechnik.



Step 6. Feedback and Maintenance of software

According to feedback of user we can modify our software. In this phase we should have to remove the bad feature and new feature the software.

We can also remove some of our initial assumption by doing the following:

- We can allow multiple account of a user.
- We can allow more than one video at a time.
- We can restrict infinite duplicate of video.
- We can add method to find fine on late return



Group : - 05

Anil Kumar	-	180101005
Faizan Iqbal	-	180101030
Ravi Rajesh Keer	-	180101037
Sandeep Kumar	-	180101040
Sheelaj Babu	-	180101041

