Video Rental System
- Actors
    - Customer
    - Video distributer
- Use cases
    - Enroll as member
    - Check out video
    - Return video
    - Order new video

Use Case Diagram

The owner of the local video rental store wants to radically change how his video rental business works. Currently, he has the traditional video rental store where Actor? customers become members, come into the video rental store to rent a video, and return the video. With his new business plan, he hopes to increase his profit margin by increasing video sales and reducing staff.

Slide 2

Video Rental System

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Use Case Diagram

In his new business plan, he wants to have the customers do everything online but the picking up and returning the videos. He wants a VRS website that allows the customers to become members or search the video inventory (by video name, actor name, director name, type of video (new release, western, mystery, drama, comedy, children, etc.), or video rating). The VRS website also allows members to log on as a member, search the video inventory (as before), select videos to rent (videos must be located at the store location where the member wants to pick up the videos), modify membership information, and check out the videos.

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Use Case Diagram

The member can also pay late fees online since videos cannot be rented by a member with outstanding late fees. The paying of late fees and the rental of videos is to be charged to a credit card number provided by the customer in the membership application process. Provided with each rental is a video rental form which lists, for each video rented, the video ID, video name, and the due date and the rental charges

Actor? charged to the member's credit card. Rented videos can be returned to any of the owner's video stores. Rented videos that are not picked up within 24 hours are returned to the available inventory; however, the rental charged is not removed from the member's credit card.

Slide 4

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Use Case Diagram

On the day before a rented video is due to be returned, the VRS will email members with due notices which reminds them that the video is due. This due email will be sent to the member every 3 days after the video's due date. After 60 days of being past its due date, a $30 charge for each overdue video is processed on the member's credit card, and an email is sent to the member to notify them of this charge. The length of rental is 5 days.

The pick-up and return of rented videos is only done through a drive-through facility at the video store. The ability for the customer to come into the video rental store to search for and rent videos is no longer available with this new business plan.

Slide 5

Video Rental System

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Use Case Diagram

Actor? The owner of the video store also wants to automate his inventory processing. He can now get newly ordered videos with a video ID (via a bar code) on the video packaging. When new videos arrive at a store, the owner wants to simply scan the video ID which then retrieves the video information from the video distributor via the Internet (the video distributors provide this feature on their websites). All the video information (i.e., its name, rating (e.g., G, PG, R), director, length in minutes, actors) are automatically stored in the store's video inventory. The owner then indicates the store location where the video will be placed. When he wants to remove a video from the store because it is never rented or it is damaged (or for whatever reason), he simply chooses the remove option and scans the video ID to be removed.

Slide 6

Video Rental System

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Use Case Diagram

Note on rental fees: the amount of the rental fee is determined by its type. New releases are at a rental fee of $3.00. All the remaining types except children's are at a rental fee of $2.00. Children's videos are at a rental fee of $1.00. Once a video is no longer considered a new release, the owner changes its type from new release to the appropriate type (western, mystery, drama, comedy, etc.).

Video Rental System

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Use Case Diagram

Build use case diagram for a video rental system

Potential ACTORS

Customers
Owner
Member

Video Rental System

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Use Case Diagram

Build use case diagram for a video rental system

Potential USE CASES

become members
rent a video
select videos
modify membership information
pay late fees
charge to a credit card
email member of due notice
email member of charge for overdues

Video Rental System

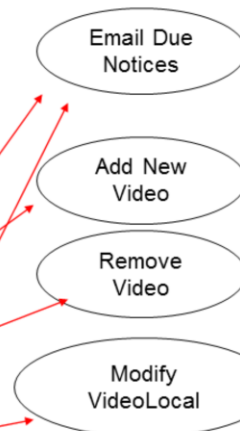• Actors

    • Customer

    • Video distributer

• Use cases

    • Enroll as member

    • Check out video

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Video Rental System

•Actors

    •Customer

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Use Case Diagram

Build use case diagram

Potential USE CASES

become members
rent a video
select videos
modify membership information
pay late fees
charge to a credit card
email member of due notice
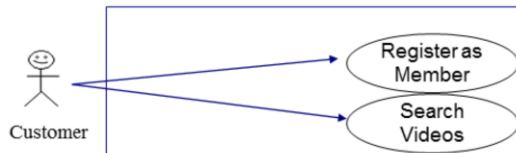email member of charge for overdues
remove videos
add videos

Email Due Notices

Add New Video

Remove Video

Modify VideoLocal

Slide 11

Video Rental System

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Use Case Diagram

Slide 12

The first use case is the systems reaction to the needed function Register as Member

Who is the Actor ---- The Customer (not a member yet)

What other functions does the customer do…. (not the member).

Well the customer can search videos…..
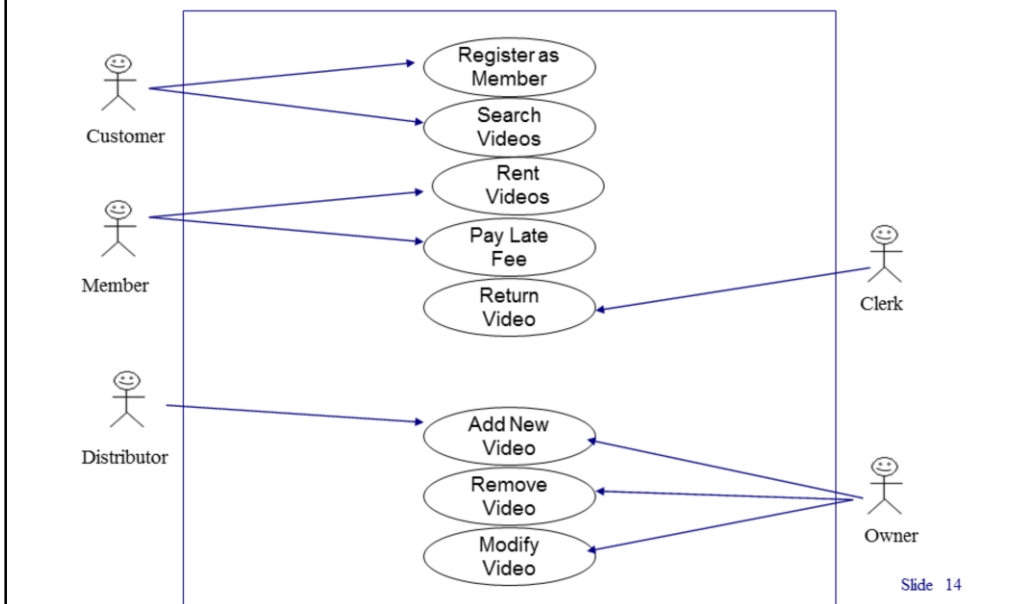
Use Case Diagram
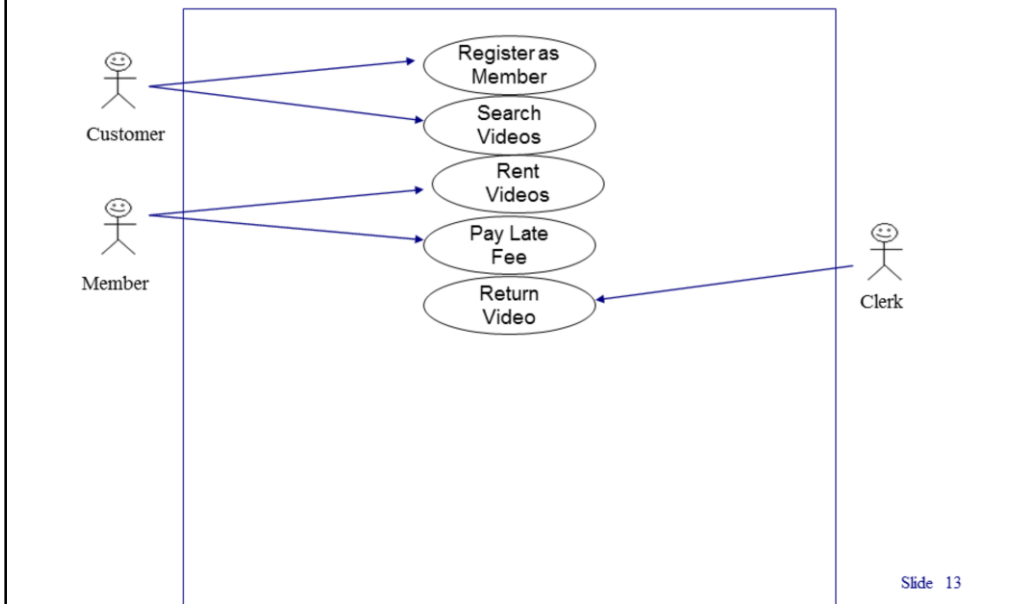
What is another actor

Member

What functions does the member do…

Pay late fees and rent videos

He may do the manual procedure of the return of the video but the clerk actually returns the video.

Use Case Diagram

OK

What is another actor

The Owner

What does he do

He adds, removes and modifies videos

But there is another actor involved in the add Video

The distributors system gives us the information to add the video so we need to add him as an actor
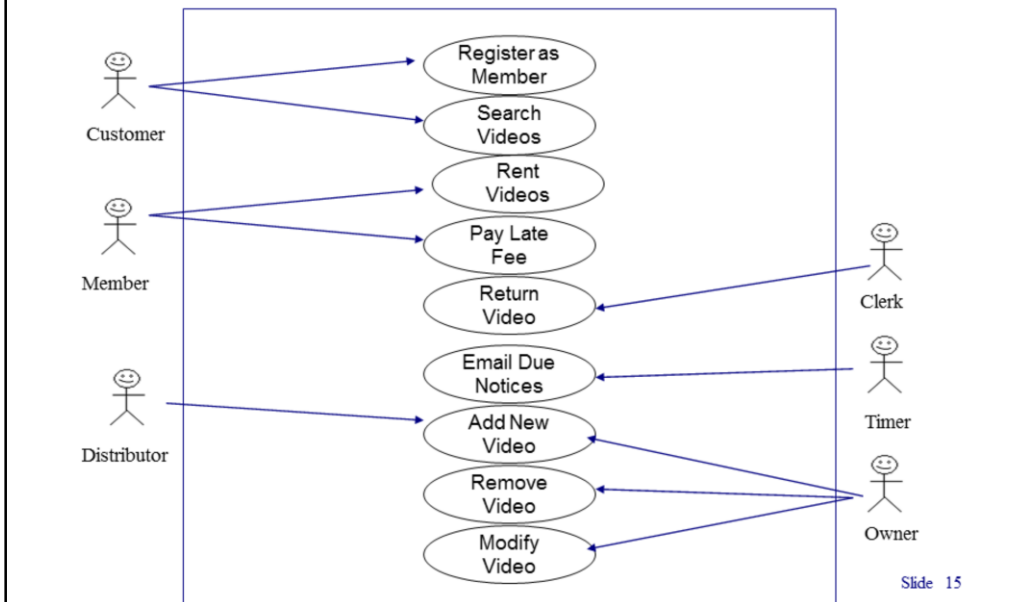
•Actors

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Use Case Diagram

There is one other important use case the email sent to the members about due movies and overdue movies.

A special actor called a timer does this use case

What is another actor

The Owner

What does he do

He adds, removes and modifies videos

But there is another actor involved in the add Video

The distributors system gives us the information to add the video so we need to add him as an actor
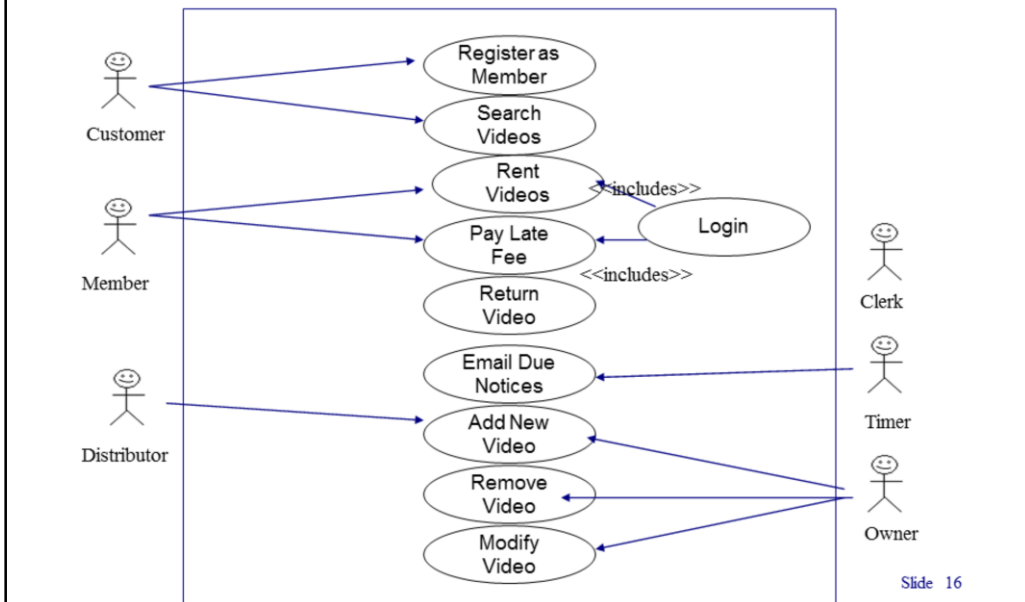
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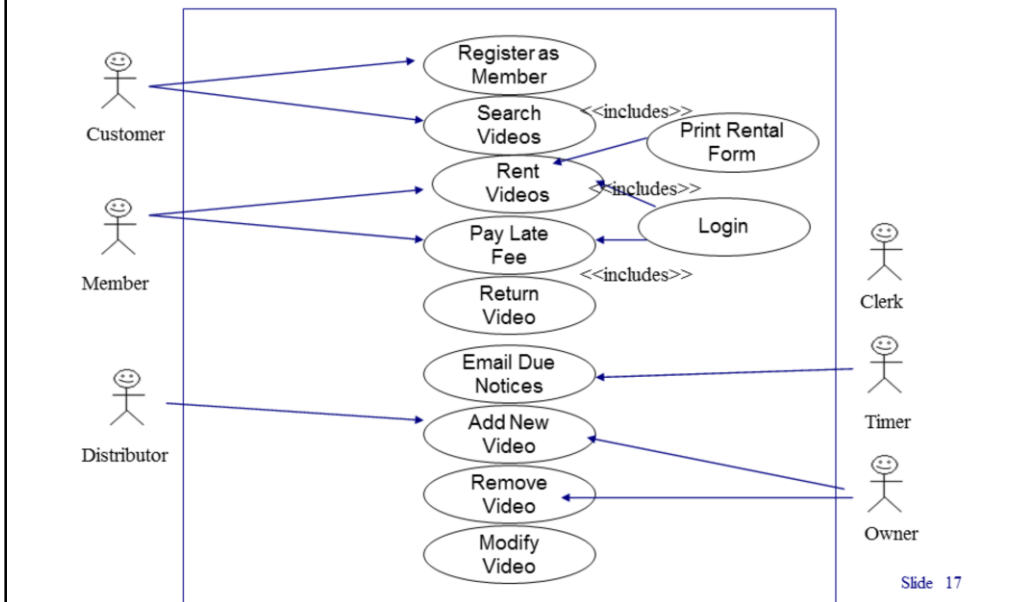- Return video
- Order new video

There are several other use cases

For example the log in use case is used to both rent videos and to pay late fees

Both of those use cases INCLUDE the code or the call to the code for the LOGIN
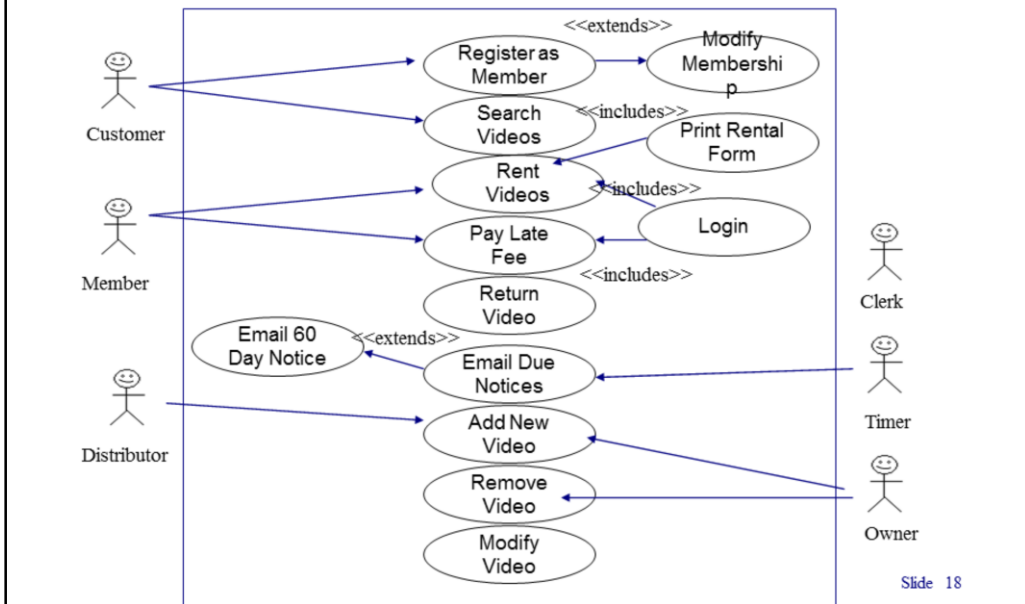
Use Case Diagram

Slide 17

There are yet more

The Rent Video will need a use case to print the rental form that will be included withing the rent video use case

As the system becomes more clear their may be more and more use cases that can be extracted as includes or extends……

Here are some others