

**Call for tenders**

CyberVideo is a company renting movies (like Video Future for instance). CyberVideo seeks to extend its offer through the introduction of automated DVD distributors called AL2000. AL2000 have to be autonomous, accessible 7/7 and 24/24 and simple to use.

AL2000 are placed in small shops and are managed by the shop owners. Physically, an AL2000 is a box that can only be opened by technicians from CyberVideo. It has a touch screen in front of the user, a slot under the screen to deliver and return DVDs and a slot for credit cards on the left of the screen.

The interface presents all the movies available in the AL2000 and a larger list of movies available at CyberVideo. A DVD can be rented by a client with a credit card or with a subscriber card.

A subscription allows maintaining a rented movies history that can be consulted. A subscription also allows to express the desire to see a given movie, available at CyberVideo but not in the AL2000.

## **Detailed description**

### **Generalities**

CyberVideo is a company renting movies (like Video Future for instance). CyberVideo seeks to extend its offer through the introduction of automated DVD distributors called AL2000. AL2000 are placed in small shops and are managed by the shop owners. There is no links between AL2000 installed at different shops.

An AL2000 is a box of 1 meter large and 1,50 meter high. An AL2000 has a touch screen, a slot to get and insert DVDs, and two slots for cards (credit card and subscriber card). The screen has to be placed so that most people can see and use it, including people in a wheelchair. The DVD slot should be under the screen and the card slot at the right of the screen. On the back, an AL2000 has an electrical outlet and a phone connexion.

AL2000 have to be autonomous. Some basic maintenance activities can be done remotely through a phone line. An AL2000 can only be opened by technicians from CyberVideo. An AL2000 can contain up to 100 DVDs. Every month, a technician from CyberVideo updates the DVDs available in the AL2000. The new selection includes recent DVDs and the top choices of the subscribers

AL2000 has to show high availability. They should be running all the time, except for one hour every month to load new DVDs and unload old ones. If an AL2000 gets out of order and that a transaction is outgoing, it has to be cancelled properly. A client must not be billed if it has not received a DVD or a card. Similarly, a client must not go away with a DVD if it has not been rendered.

AL2000 has to be easily usable. The user must have facilities to always know where he is in the renting process. Also, he must have possibilities to backtrack at any time. Renting a movie must be doable in less than 5 minutes if the client knows what he wants.

The AL2000 is provided by an external company. It comes with an electronic card equivalent to a powerful PC. The AL2000 is an input of the project which purpose is to develop the software necessary to handle all the functions related to DVD location and to allow remote maintenance. The possible maintenance software is not in the scope of the system.

A credit card or a subscriber card is needed to rent a DVD. The cost of a location is 5 euros per day (24hours) with a credit card and 4 euros with a subscriber card. Clients ask for a subscriber card via AL2000 and get it through surface mail within 7 days. Money can be put on subscription cards via a credit card and then DVDs can be rented at preferable prices. Forbidden types of movies can be indicated on the card. The minimum amount of money on the card is 15 euros.

**Provided functions**

AL2000 has to provide clients with the following services:

- Show the movies loaded in the AL2000. For each movie, a summary with the main actors and the movie maker is presented.
- Show the available movies in the AL2000. For each movie, a summary with the main actors and the movie maker is presented.
- Look for movies available at CyberVideo, not in the present AL2000. Search should be possible by actors, director, theme, etc. CyberVideo updates the list of available movies every month.
- Ask for a movie not loaded in the AL2000.
- Show the top locations of the week or the month
- Rent a DVD
- Credit a card
- Get client historic (rented movie)
- Get client information (money left on the card, ...)

AL2000 provides the following facilities for maintenance to CyberVideo:

- list of movies available in the AL2000
- configure the welcome screen (with adds, sales, ...)
- provide statistics about the usage of AL2000 (number of locations, average duration of locations, average cost of location, ...)

These facilities are provided through programmatic facilities.

**Suscription**

A client can ask for one or several subscriptions, materialized by CyberVideo cards. These cards allow clients to rent movies at preferable prices. The minimum amount of money on the card is 15 euros. There is no validity limit on the card.

Cards are credited with a credit card. The minimum amount that can be credited is 10 euros. Every credit operation must be stored for one year.

Location constraints can be specified on a subscription card. For instance, renting some types of movies like western or peplum can be forbidden. This is very useful for children. Constraints can only be specified on the number of movies that can be rented on a week.

The locations related to a card can be maintained. For instance, parents can consult the list of movies rented by their children on their card.

If a subscriber rents more than 20 locations in a month, he receives a credit of 10 euros on his card.

A subscription also allows to express the desire to see a given movie, available at CyberVideo but not in the AL2000.

**Location**

A DVD can be rented with a credit card or a subscription card. At most, 3 movies can be rented with a subscription card; only 1 with a credit card.

Every location must be stored during one year.

To return a DVD, one has to insert the card used for the location and, then, the movie in the DVD slot. AL2000 has to check that the right DVD is returned. If this is not the case, the DVD is ejected and the location is not updated.

AL2000 also calculates the number of days of the location and debits the card accordingly. If a subscription card is negative, the card is frozen and it is asked to the client to credit his card as soon as possible. If the card is not credited within one month, the credit card is automatically debited of the due amount plus costs.

When returning a movie, the client can declare a DVD to be damaged. In this case, the DVD cannot be rented anymore and will be verified by CyberVideo (as soon as a technician passes). If the damage is effective, the client is reimbursed.

If the code is damaged, the client has to see with the shop owner.