

Software for Managing Pay Per View TV

The Rapacious Monopoly cable company is setting up a Pay per View operation for first run movies. All movies start on one of eight three hour time slots. A customer uses an extended set-top box interface to make a reservation to view a movie during one of several scheduled showings. To make a reservation the customer selects display of Pay per View booking system on the TV. The Pay per View display shows the schedule for the available movies for the next 96 hours. The customer requests one or more movies at desired time slots. Since bandwidth and server capacity is limited, there is an upper bound on the number of requests which can be accepted for any given time slot. The display then moves to a form for payment information. The customer can either choose to have the charges added to the bill from the cable company or charged to a credit card. If credit card payment is selected then the customer enters credit card information and the system validates the credit card charge. Once the mode of payment is selected then a reservation for the selected movie is made. The user is given a confirmation number for each movie booking he/she has made. The system then creates a set of transmit records to initiate sending the selected movies to the set top box from which the reservation originated at the selected times. The customer can cancel the reservation up an hour before its scheduled time of delivery. Cancellation is accomplished through selecting the cancellation display on the set top box and entering the confirmation number into the cancellation form. The system must then delete the transmit record and delete the reservation record. If the transmission begins during an attempted cancellation the customer is charged for the movie. If the user did not view the movie she/he is charged a reservation fee of \$5. The charge for the movie is applied when the transmission of the movie begins. If the payment is through a credit card, then the credit card company is sent an invoice. The RMCC keeps track of what movies are selected for what times to better schedule the available time slots and periodically revises the schedule and the limits on the number of reservations for each movie.

You are responsible for the software which receives the inputs from the set top box program, manages the reservations and charges and initiates the transmission of the movie by invoking a transmission system. You are not responsible for the set top box software or the transmission system software.