

AUTOMATING SET TOP BOX PAYMENTS

MODULES TO BE IMPLEMENTED :

1. Customer Details
2. Smart Card Details and Plan Details
3. Subscription details
4. Search
5. Monthly Updation of Payment
6. Generate invoice

OVERVIEW :

As per TRAI's rules, all analog cable tv is soon to be changed to digital set top boxes. This document is to give a functional overview about the system and the project.

Every customer will have a customer ID. One customer can have many set top boxes. Each set top box will have a unique card inside it which has a 16 digit smart card number. Every smart card will be having an associated plan with it according to which they receive the channels. Every plan has a unique code associated with it. Payment has to be made on or before 10th of every month after which airing of channels will be blocked.

Once a customer is onboarded his details are taken down. A smart card is allocated for him. Every customer has a customerid and every smart card has a smart card id. They are mapped together for a subscription. Single customerid can be associated with multiple smart cards. A customer must take a base package like tamil package, telugu, hindhi etc. on top of which packages like English movies, sports, news etc can be added. Individual channels can also be added on top of base package. Eg) Star movies as a single channel can be added to a customer with basic tamil package. Every channel has its price and also a package has its own price.

A customer can change plan, add/delete package or individual channels any time after subscription. If a customer fails to make payment on or before the specified date, or if the customer cancels his subscription, status of the customer and the card is made inactive.

The system to be developed must be aimed to aid the cable tv operator in maintaining the data and manipulating it easily without physical documents. Flexible and friendly UI should be designed which helps and assists the user with all information.

MODULE DESCRIPTION :

1. Customer Management

- Adding a Customer :
Once a customer is on boarded, all his details such as Name, Phone Number, Email id, Address has to be stored.
- Updating a Customer :
All details of the customer can be updated.
- Deleting a Customer :
Deleting a customer means that making his status as Inactive.

UI:

- ✓ A form to get the details for the first time.
- ✓ UI to Update and Delete the customer.

2. Smart Card and Plan Details

- List of smart card numbers and channel plans and packages have to be loaded into the database.
- Cards that are not currently associated with any customers have to be made inactive. (Status has to be updated as inactive in db)
- Every package has base rate and 14.5% of VAT associated with it.

UI :

- ✓ Given a card number status can be changed to active/inactive for the smart card.
- ✓ No UI for other parts, entries should be made in db directly.

3. Subscription Details

- Adding a subscription
Every customer and plans are added. Smart card allocated for that customer is mapped. A customer can also take one channel extra individually other than taking as a package so the name of addon channels also has to be added. Monthly amount that has to be paid by the customer is entered. Amount is just entered. No need for calculation.
- Updating a subscription
Plans can be changed. More individual channels can be added. Accordingly payment amount must be updated.
- Deleting a Subscription
Subscription entry must be deleted and customer has to be marked inactive in customer table. Correspondingly the smart card must also be marked inactive.

UI :

- ✓ Customer ID should be entered. After that details of that customer has to be fetched. Then smart card number is entered which is mapped with the smart card number.
- ✓ Base package names should be chosen from drop down list box.
- ✓ Addon channels and packages can be just a text box.
- ✓ Amount to be paid by the customer is also a text box.
- ✓ Add button should insert all these values in a db.
- ✓ Update and delete should also be implemented in a similar manner.

4. Payment Details

All customers who have paid that day, their status has to be made “paid” from “unpaid”. This happens every month.

UI :

Bulk insert. List of all unpaid customers should be displayed. A check box is displayed before the name of all customers. User will check the checkbox for all the users who have paid. A single submit icon should update the status of all checked users to “paid” in the database.

5. Bill generation

If a customer ID is entered , a bill has to be generated with the company name, bill number, date of bill, date of payment and the customer’s details. This has to be made available in pdf format so that it can be mailed to the customer lately. (Mailing is done manually. Its not automated in the system)

6. Search :

- Searching by smart card number should return the status of the card, the customer ID and name of the customer who has the card.
- Alternately , searching by customer ID should return the status of the customer and the card, the card number, the plan he has opted for and also his phone number and email id. If the customer has more than one set top box, then the details of both cards must be displayed.
- At any point of time, the operator should be able to view the customers who have paid and not paid for any month.
- Search by date should give the list of customers who has made payment on that date.

HOME PAGE : Home page should display

- ✓ Company name and address in the header.
- ✓ Navigation button for different screens.
- ✓ Total number of active customers.
- ✓ Total payment to be received for the month.
- ✓ Total number of customers paid/unpaid.
- ✓ Total sum received for the month and total sum yet to be received.