

Payment of Bus Fare Using Handy Card

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Abstract: There are abundant people in day to day life travelling in either government bus or private bus. The foremost delinquent that the user faces is that they don't get the remaining amount from the conductor that they give for bus fare. So that there is a loss in fractions to each and every individual. When the individual becomes to be hundreds of passengers, there is no account for this loss. To minimize the chance of losing even paisa by every bus passenger, the pre-payment of bus fares through CARDS methodology can be employed.

Keywords: Handy cards, POS

I. Introduction

There are several online applications where we are paying our bills (EB, Railway Tickets, Airline Tickets, water tax, house tax and etc..) these development in technology help us in saving our money even in paisa. The major problem for middle class people is travelling in bus. It is not possible give the exact money all times and the problem starts here. This is certainly not an individual problem or negligible problem for a big nation like India. These money are getting to intermediate agents pocket instead of reaching government or people. Let us provide some solution for it.

II. Present Scenario

India had developed in all fields. Usage of technologies in each field is getting increased every day. The transport system also developing. But development of roadways was not up to the mark. There are millions of people lose their money in road transport. One among that is where we lose our money in 50 paisa or 25 paisa is Bus Travelling. Usually the bus ticket rates are in a cater of paisa and that the bus conductor will give us a reply saying will return the money while you getting down. What happens? At last he never returns us the money saying it's just a paisa and we also get down the bus thinking why to argue with that conductor. When you consider a bus there are several passengers travelling in it, for 1 passenger it's a paisa loss means think about hundreds of passengers travelling in it each loses a paisa at last the amount collected by the conductor goes up to hundreds.

III. Proposal To Solve The Problem

To avoid this problem we can implement a new card for passengers who are travelling in bus. The methodology used in this is not new. It is similar to the ATM transactions or any other card transactions. Similar to the ATM card, card will be provided for bus passengers. With that card they can pay amount to ticket according to the destination. Carrying this bus payment won't be an extra burden for them. The only they want to remind is that they want to maintain balance in the card.

Bus conductors will be equipped with a device quite similar to Swiping Machine in super markets. In that swiping machine, people will swipe the card and pay according to the bill. Likewise the conductor also provided with swiping machine and the passenger can pay according to the need. Thus through this technology the chances of losing paisa gets reduced.

3.1 Handy Card Used In Food Court

Handy Card limits the cash handling in several situations. Every individual is given a unique card which is similar to the card which is given in food court with unlimited validity through which we can access all the food items in food court. The card can be made out of best quality plastic which can be sourced from trusted vendors.

There are several technologies used behind the food court card is TOUCH SCREEN POS or LUCID food court management software which helps the people during peak hours by avoiding cash transactions. This handy card helps the people in saving time avoiding the cash payment. The order payment is done with a swipe of the card. The customer can have the deposited amount in the card and which can be used irrespective of time since it's an unlimited validity card. Handy food court card methodology can be in turn applied to government buses which save the time during the peak hours.

The sales and collection of all the counters can be easily tracked with this technology used.

3.2 SMART BUS CARD

The smart bus card is quite similar to this where we can use this card in all the town bus for ticket payment. The card can be temporary or permanent. The temporary card cannot be reused. The card will have initial amount while buying. The card can be until the validity or amount getting over. The permanent card can be recharged whenever the user is required. This card will be provide with some address proof. According to user level, negative transaction will be allowed with some extra charge. This will be advantageous on both the user and customer side.

This card is debited at the office in bus stand according to the customer requirements, the minimum of Rs.50 to the maximum of Rs.1000. This card can be bought by the customer at a minimum cost and it is a simple card similar to handy card or ATM card.

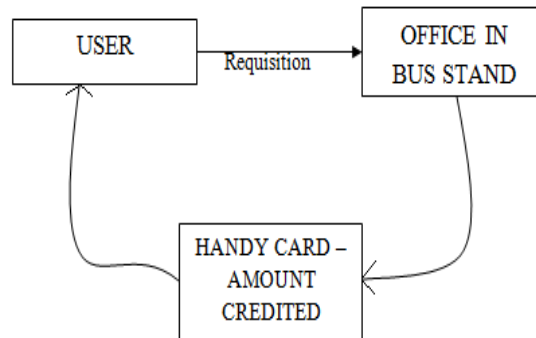


Fig 3.2.1: Recharging the Bus Card

The payment methodology is simple and this card won't have much security options. This card won't be provided with any PIN and any other authentication. The card is given to the conductor of that particular bus where the passenger is about to travel where he can swipe the card and credit the money according to the destination where he has to travel. Here there is no need of the PIN/password since entering password and verifying it all.

3.3 Card Transaction

The flow of transaction is similar to VISA card or master card transaction. But the only major difference is that there is no authentication. They are designed to compensate the issuer for some of its expenses and risk undertaken in supporting a bankcard transaction. The card is given to the conductor and card is captured from the magnetic stripe in the card. This magnetic stripe is similar to VISA card which will be unique. The transaction is initiated with a verification of the card.

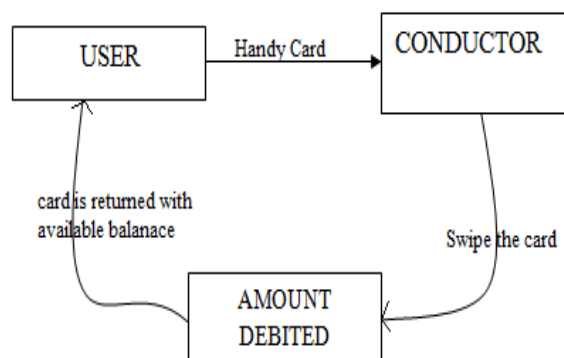


Fig 3.3.1: Issuing tickets through Bus Card

The verification is just checking whether the card is valid or not. The passenger will have direct relationship with the conductor so that wrong transaction can be avoided without his knowledge. According to the destination the amount from the card is credited and the ticket is generated with the balance available in the card. Sometimes whole family may travel together. At that time individual payment is not easy. So card should support multiple payment at the same time. This limits the cash transaction and thus minimizes the pilferage loss.

3.4 Effect On Economic Side

The establishment of this is not an easy process and it consumes a lot of money. Collecting the complete details of people and storing need some database. These databases won't have much personal detail as there is no possibility of misuse and the amount in this is also low. The only problem in this is avoiding duplicate cards. It may take millions to get established. But it can return the expense the whole in one year. For example, 1 Billion people were travelling in bus. In that, let us assume 1 million people losing one rupee per day means, it will be 365 million rupees per year. The assumption value itself is in a high range. This is people's money and government's money. Through this method the money will contribute to a huge level in nation's economy. The transport can turn to be the most profitable department. The whole transaction will come under government control and they monitor the entire system easily. The burden on conductors is also reduced in this.

IV. Conclusion

The development of a nation is the development of people and increasing the welfare of people. This card implementation in bus will enhance the comfort of people travelling in bus by saving their money in a factor of paisa each and every day and reduces the collection calculation per day in bus. The calculation is made automated through the swipe machine which is employed by the conductor. This helps the lack of people in deducting their amount in a factor of paisa each day.

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