

**ABSTRACT**

In metro cities we can see you a huge rush at shopping malls on holidays and weekends. This becomes even more when there are huge offers and discounts. Nowadays people purchase a variety of items and put them in the trolley. After total purchasing one should approach counter for billing purpose. By using barcode the cashier prepares the bill which is a time consuming process. This results in long queues at the billing counters. This project presents an idea to develop a system in shopping malls to overcome the above problem. To achieve this all products in the mall should be equipped with RFID tags and smart check-out counter. First of all customer must login / signup with the system. When one puts any product on RFID reader its code will be detected automatically, the item name and cost will be displayed on the LCD, thereby the cost gets added to the total bill. You need to continue this process until you complete with scanning of all the products. After completion, you may generate the bill which would be mailed to your registered account and the amount will be debited from your registered credit card. By doing this lot of time and man power can be saved.

**ADVANTAGES**

RFID tag detection not requiring human intervention reduces employment costs and eliminates human errors from data collection.



As no line-of-sight is required, tag placement is less constrained. RFID tags have a longer read range than, e. g., barcodes. Tags can have read/write

memory capability, while barcodes do not. Many tags can be read simultaneously. Automatic reading at several places reduces time lags and in accuracies in an inventory.

**LIMITATION**

In this prototype we can scan RFID tag only in the range of 3 to 4 cm. At one time, only one person can scan the products. In retail market, 1 RFID tag cost around 30 Rs. Which is not affordable in small scale shops as well as the profit of shopkeeper is also somewhat affected.

**CONCLUSION**

* The proposed model is easy to use and does not require any special training. This model keeps an account and uses of the existing developments and various types of radio frequency identification and detection technologies which are used for item recognition, billing and inventory update. As the whole system is becoming smart, the requirement of manpower will decrease, thus benefiting the retailers. Theft in the mall will be controlled using this smart system, which further adds to the cost efficiency.
* The time efficiency will increase phenomenally since this system will eliminate the waiting queues. More customers can be served in same time thus benefiting the retailers and customers as well.



**WORKING DIAGRAM**

