SMART CARD FOR VARIOUS APPLICATION IN INSTITUTION

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Abstract - *Smart cards have been around for a long time now; it used to keep the right amount. At the moment smart cards can be seen in the communications and retail sector. This paper aims to create a style of student card institution that uses mobile credit technology that can be used in the retail and educational sectors. A good ID will be used as a source of identification, protection and funding. From there we can see the power of smart cards interacting in many ways, their functionality and their value. Open credit has a different barcode on each card provided by the scholar. Good identification does not store data directly within the rotating credit but within the account-based system server. This will speed up the process and keep the activity secure.*

Key Words: *Smart Card, Identity Card, Attendance System, Library Management, Transaction Card*

1. INTRODUCTION

   A smart card, a chip card type is a plastic card embedded with a computer chip that stores and transmits data. cardboard data is transmitted through a barcode that is part of a computer system. advanced account credit protection systems are in place today across all important applications, including health care, banking, entertainment and transportation. The compact detection contains a barcode that acts as an academic novel that may reduce student activity. The authority for all positive identification is given to the administrator who can refill the cardboard if necessary. This card is useful for coding in places like pubs and standing shops. When the cardboard box is inserted, a unique ID is scanned and as a result is deducted from the student's account. For the purpose of presence, open credit is scanned and the presence of code is sent directly to the server so the teacher does not have to try to make paperwork. Similarly in the event that there is a standing shop on the college campus where the amount is deducted from the student account and in the same way as the bar. Therefore, the specialist should carry out a positive diagnosis. Thus, this card is incredibly useful for the reader and makes many of its tasks easier.

1.1 Purpose

   This project includes a card containing an empty barcode other than a unique card given to the student and intelligence. This project is designed to reduce student workload. For the purpose of records, intelligence should keep registers in place, this can be replaced by the use of a smart card.

1.2 Scope

   A smart card can be used to record student attendance.

   It also works for campus payment purposes.
   The card can also be used as a library card.

2. LITERATURE SURVEY

For all the different purposes there is a different card and at times it is difficult to carry all these cards especially for students, who wish to carry one card that can achieve all the goals. This paper aims to design a student card program for the institution that uses smart card technology that can be used where available, to pay.

The plan also includes the use of Critical Public Infrastructure (PKI) for data protection. CMS manages the entire life cycle of smart cards, such as card requesting, printing, and defining the owner's status.

Smart card technology not only provides secure access to sensible and realistic apps but also provides a natural value for security, authentication and multi-application capabilities in various transport, banking, communications and public industries. The public impact on the use of security systems and technology backed by smart card technology is growing rapidly from the events of 11 September. The presentation will provide a brief overview of smart card technology to understand where technology is going, and provide four smart card courses (domestic and international) in the fields of IT Network Security, public health care, financial services and free play.

3. CHALLENGES

   Instead of carrying a lot of different cards to the center, the student can carry one card that can be used for supply desirable objectives such as removing books from the library and stationery, presence smart class. This project includes a card containing an empty barcode other than the unique card assigned to it student and faculty. This project is designed to reduce student work. For the purpose of the records, the intelligence was to keep registers in order, this can be changed using a smart card. When making a payment at the 3rd center a party app or a separate card or cash used either combined with the use of a single smart

card. Upcoming the future is automatic so this type of project will be implemented our facility looks smarter and saves time with staff of operation.

4. SOLUTION

Below are some of the possible solutions considerations of the challenges mentioned above:

1. A smart card can be used to record the presence of students.

2. It also serves the purposes of transaction on campus.

3. This Card can be used for library purposes.

5. METHODOLOGY

Attendance module records attendance of student with the assistance of barcode printed on open-end credit of student and stores it into the database. The data recorded by the module is uploaded directly to the website which is why it overcomes the efforts made in the current environment. Data is usually used to control or perform tasks.

Recharge smartcard (that is office admin of the college) is employed to feature money into the account of the cardboard . A limit is made in order that a card might not he abused. To start the appliance the cardholder is required to scan their card. The cardholder then specifies the amount to be entered in if the new balance exceeds the limit, the maximum amount of error requested otherwise the value will be increased. It comes under the Admin Login module

Payment module will be operated by the staff members, the module handler will take care of recharging the students monetary balance in the card and also the bill payment in the canteen, stationary shops, Fee Payments will be carried out using this card.

In library module the book keeper can assign book to a specific student on the unique ID that might be generated by the open-end credit , it'll also keep track of late returning of book and can automatically levy fine upon the actual student.

Unique card ID that is barcode will stored the student info so there will be no need of separate ID card for student.

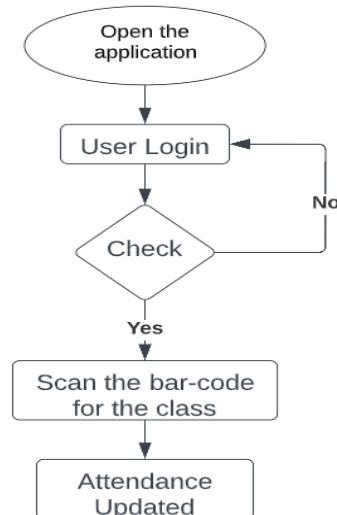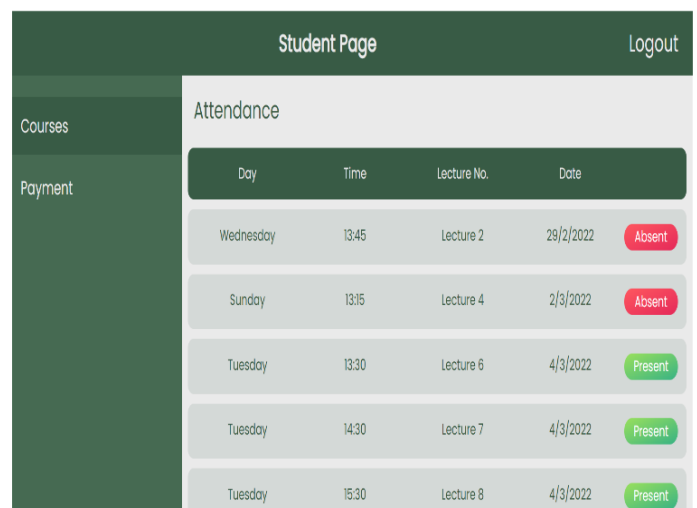## 6. WORKING OF PROJECT

1. ATTENDANCE

Fig 2. Flowchart of Attendance

In the Fig 2. It describes the process of student attendance and the teacher is updated using a barcode scanner. Through the scanner, the user will scan the barcode on his smart card. After scanning the card, the entry of the student or teacher will be completed on the Database and after verifying its validity, attendees will be reviewed.

Fig 3. Attendance Page of Student

There are many multiple pages in the application. Fig.3 shows the attendance page of the where the student can check the attendance all by himself for which lecture/class he was present or absent. The attendance

which is stored in the database will automatically be shown in this page of the application.
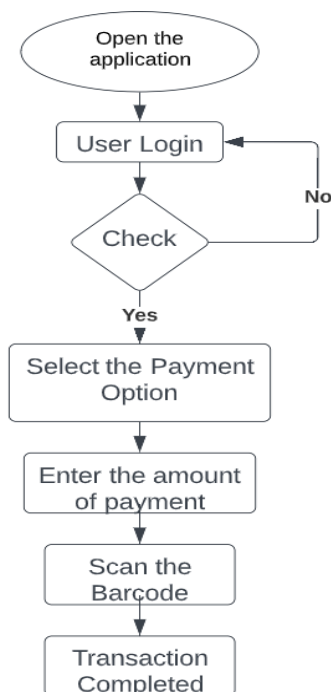
2.   PAYMENT

Fig 4. Flowchart of Payment

Fig.4 describes the payment process on the premises a college, for example, in a bar or paying a fine in the library. By selecting the 'Payment' option, the user will see a window asking for the amount to be paid again who has to pay. After scanning the barcode, it will ask password and after confirmation, if the password is valid then a transaction will take place.
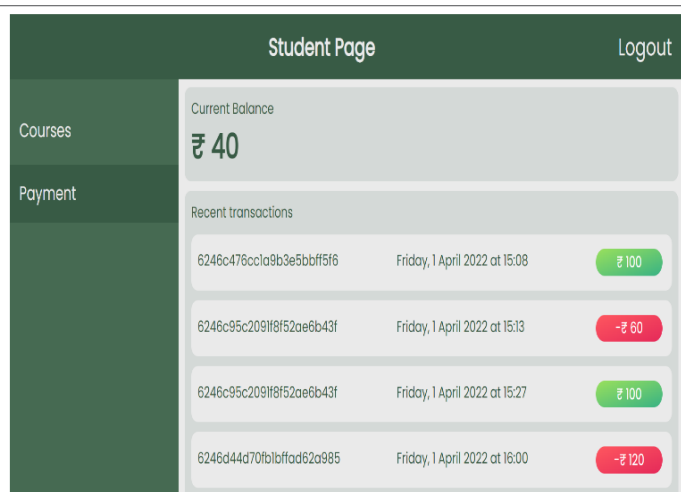

Fig 5. Payment Page in the Application

Fig.5 shows the payment page where the transaction which are done throughout the Institution are shown in this page of the application, the records of the payment and also the date of the transaction is visible to the user so he/she may know where exactly and when did the transaction took place.

7. RESULTS

PARAMETERS	CURRENT SYSTEM	IMPROVEMENT
Attendance	Attendance is been taking manual this date. Registers are to be maintained.	Attendance can be entered by simply scanning the smart card.
Payment	Students and faculty are using hard cash for payment.	Smart card can be used to make the payment directly by scanning.
Library	Libraries are using traditional system which is catalogued system.	Libraries will used electronic method in which smart card will store the information of issuing the book, date of issuing and submission.

In Existing System Attendance is been taken manually but in implemented system attendance can be entered by simply scanning the smart card. Students and faculty are using traditional payment that is hard cash for payment but in implemented system smart card are use to make the payment directly by scanning. In this System we have added library system in this library system electronic method in which smart card will store the information of issuing the book, date of issuing and submission.

7. CONCLUSION

The smart card is a growing technology. The implementation of smart cards will improve security generally, efficiency caused by a cashless environment, data consistency and functionality of student card. Through the applications of the versatile open-end credit, many improvements within the existing environment are often made. When the cardboard is scanned then, the unique id is stored and accordingly transaction or process will perform. Cash is deducted from the student's account. Smart cards are often adopted in various sectors and on taking upon the usage of smart cards it'll improve their functionality, efficiency, and usefulness.

The future of smart card is looking bright. The many existing and potential advantages smart card has to offer both the public and private sectors of the industry raise the interests of many large corporations such as Wachovia and Motorola. Compared to the conventional magnetic strip's cards, smart cards offer increase security, convenience, and economic usage.

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