SECURED DATA ENCRYPTION

DYNAMIC DEVELOPERS

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INTRODUCTION

For our semester project we have developed a secured data encryption system which we will implement on an ATM transaction feature. ATM is a specialized computer that makes it convenient to manage your money. For example, almost all ATMs allow you to withdraw money and many allow you to make deposits too. However with such remote access they are targets for robberies, fraud and other security breaches. Therefore each one needs a high security system which can be implemented by data encryption

OBJECTIVE

In ATM Transactions we focus mainly on security and on ATM features. The feature transactions is a topic of deep interest in the Finance domain.

Main objective is to make transactions secure by implementing cryptography using hash function and RSA algorithm and prevent it from Fraud and Logic Attacks.

DATA RESOURCES USED

For backend and linking:

Python 3.x

For database management:

SQLite 3

Programming Platform:

Jupyter

Idle

Atoms

METHODOLOGY

To implement ATM transactions we have divided our project into two parts. One module comprises of the Administrator and the other one is the ATM.

The Admin module is responsible for creation of the database and adding new customers or updating their personal details.

The ATM module is responsible for secure (encrypted) transactions. It send data to server where it verifies and validates the data, and then make transactions or any other user request like pin update/create or balance check.

Some screenshots from the working project are shown below:-

```
1. Withdrawl
2. Check Balance
3. Change Pin
4. Exit
Enter the choice: 3
Enter the Card No.: 632002
Enter the pin: 0000
Create a new Pin: 2313
Pin Created Successfully
```

1. Person with Card Number 632002 created the pin 2313

RESULTS ACHIEVED

	Account I	Name	Card No	Phone No	Balance	Pin
1	2	Tushar Mittal	632002	9898989898	200000	9164861691231738104
2	3	Tanishi	632005	6767575763	400000	-8802655181562605797
3	4	Dhvani	632009	3920483234	399999	0
4	5	Vishvesh	632014	2038402334	1000000	0

2. The pin 2313 got stored as the number mentioned above.

CONCLUSION

We have made Secured Data Encryption System using Python language and it is storing details in encrypted form ensuring security to users. The RSA technique used helps to prevent the third party from knowing the keys of the user. The Hash function prevents the Man in Middle attack.

It can be implemented in real world for personal uses.

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THANK YOU