VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belagavi, Karnataka- 590 018



A Report on

INTER / INTRA INSTITUTIONAL INTERNSHIP (21INT49)

Submitted for the partial fulfilment of academic requirements for IV Semester

BACHELOR OF ENGINEERING
IN
ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Submitted by SANIYA KOUSAR 4CI21AI034

Carried out in association with SKILLFACT, BENGALURU

<u>Under the Internal Guidance of</u>

Mrs. PONNAMMA M U

Assistant Professor



DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

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Department of Artificial Intelligence and Machine Learning



CERTIFICATE

This is to certify that the course entitled "Inter / Intra Institutional Internship (21INT49)" is carried out by Mr/Mrs SANIYA KOUSAR (4CI21AI034) Bonafide student of Coorg Institute of Technology in partial fulfilment of internship work for Bachelor of Engineering in Artificial Intelligence and Machine Learning under Visvesvaraya Technological University, Belagavi during the academic year 2022-2023. The report has been verified to satisfy the academic requirements in respect of work prescribed by the university.

Mrs. Ponnamma M U
Internal Guide

Associate Professor & Head

Principal

INTERNSHIP CERTIFICATE

This is to certify that Mr./Mrs.



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Saniga Kouser

bearing USN 4CIQIAI034

PYTHON PROGRAMING

of Coorg Institute of Technology, Ponnampet undergone Campus Internship on

held from 11th October to 11th November 2022.

Placement Officer

Principal Coorg Institute of Technology

Coorg Institute of Technology

Business Head

SKILLFACT, Bengaluru

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SANIYA KOUSAR [4CI21AI034]

ABSTRACT

The Automated Teller Machine (ATM) Application is a digital banking solution designed to provide convenient and secure access to financial services for customers. This application allows users to perform a wide range of transactions, including cash withdrawals, deposits, fund transfers, balance inquiries, and bill payments, all through an intuitive and user-friendly interface. Leveraging advanced security measures such as encryption, biometric authentication, and real-time transaction monitoring, the ATM Application ensures the protection of sensitive financial information. With its 24/7 availability and widespread network of ATMs, this application revolutionizes the way individuals manage their finances, offering them flexibility and accessibility in their banking needs.

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CHAPTER 1

COMPANY PROFILE

COMPANY NAME: SKILLFACT

DURATION: 4 WEEKS

SKILL FACT is a Campus & Corporate Training & Consulting company since 2017. We specialize in Training and Skill development Development, for both College students and Corporate Associates. In addition to the extensive industrial experience in Technologies, we have a pool of experts in our faculty specializing in specific areas that serve organizations of Multiple domains & industries.

Skill Fact helps colleges, corporates and industries to exploit critical talent requirements through their recruitment solutions and technical, analytical, logical reasoning and soft skill training solutions.

They offer campus recruitment training, faculty development programs, entrepreneurship development programs, technical trainings and workshops, project guidance and placement assistance to colleges.

They assist students in developing their academic career and interests through individual counselling and group sessions and building entrepreneurial ecosystems conducive to student entrepreneurship by providing mentoring from industry experts.

CHAPTER 2 TASKS PERFORMED

2.1 Introduction

ATM (Automated Teller Machine) applications are software programs designed to facilitate various banking transactions and services through ATMs. These applicationsenable users to perform tasks like withdrawing cash, checking account balances, transferring funds, and more, all without visiting a physical bank branch. They play a crucial role in modern banking, providing convenience and accessibility to customers while ensuring secure and efficient financial transactions. ATM applications are continuously evolving to incorporate new features and technologies, enhancing the overall banking experience for users.

2.2 Methodology:

The methodology of an Automated Teller Machine (ATM) involves the following key steps:

- 1. User Identification: The user begins by inserting their ATM card and entering a Personal Identification Number (PIN) for authentication.
- 2. Account Verification: The ATM system verifies the user's PIN and matches it with the information stored on the user's bank account.
- 3. Transaction Selection: Once the user is authenticated, they can choose from various transactions such as cash withdrawal, balance inquiry, funds transfer, bill payments, etc.
- 4. Transaction Processing: The ATM communicates with the bank's server to process the selected transaction.

Cash Dispensing: If the user selects a cash withdrawal, the ATM dispenses the requested amount of cash after ensuring sufficient funds are available

SOURCE CODE:

```
class Account:
 def __init__(self, balance=0):
  self.balance = balance
 def balance_status(self):
  self.balance = 50000
  return self.balance
account() = Account()
count = 1
id = int(input("\nEnter atm pin: "))
while (id < 1000 \text{ or id} > 9999) and (count < 3):
 id = int(input("\nWrong Pin.. Please Re-enter: "))
 count += 1
if (count < 2):
 print("\n1 - View Balance \t 2 - Withdraw \t 3 - Deposit \t 4 - Exit ")
 selection = int(input("\nPlease Select An Option: "))
 if selection == 1:
```

print("\nAccount Balance :",account01.balance_status())

```
print("Transaction number: xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx")
print("Thank you for banking with us! Good day.")
elif selection == 2:
amt = float(input("\nEnter amount to withdraw: "))
if amt < account01.balance_status():
  amt = account01.balance_status() - amt
print("\nNew Updated Balance: " + str(amt))
print("Withdrawal Successful!\t")
print("Thank you for banking with us! Good day.")
else:
  print("\nSorry you don't have enough balance to make this transaction !!!")
  print("Account balance: ",str(account01.balance_status()))
  print("\nPlease make a deposit.")
elif selection == 3:
amt = float(input("\nEnter amount to deposit: "))
amt = amt + account01.balance_status()
print("\nNew Updated Balance: " + str(amt))
print("Thank you for banking with us! Good day.")
elif selection == 4:
print("\n Your transaction is complete.")
```

2.3 Output:

```
Hi, I am Raghu, your ATM assistant. How can I help you?
Listening...
deposit money
Please enter your PIN

Enter ATM PIN: 1234
Press 1 to View Balance, press 2 to Withdraw, press 3 for Deposit, press 4 for Exit

Please Select An Option: 3

Enter amount to deposit: 50000

New Updated Balance: 50000.0

Listening...
```

CHAPTER 3

SCOPE

The scope of an ATM (Automated Teller Machine) application typically includes:

Basic Banking Functions: ATMs allow users to perform standard banking operations such as withdrawing cash, checking account balances, and depositing money.

PIN-Based Security: Ensuring secure access to the user's bank account by requiring a Personal Identification Number (PIN) for transactions.

Card Authentication: Validating the user's ATM card through magnetic stripe or chip technology.

Cash Dispensing: The primary function of ATMs is to provide cash to users based on their account balance.

Balance Inquiry: Allowing users to check their account balance, which is a fundamental feature.

Cash Deposits: Providing the ability for users to deposit cash and, in some cases, checks into their accounts.

Mini-Statements: Generating and printing a short account statement showing recent

3.1 Advantages:

Automated Teller Machines (ATMs) offer numerous advantages to both banks and customers. Here are some of the key advantages of ATMs:

- 1. Convenient Access to Cash: ATMs provide customers with 24/7 access to their bank accounts, allowing them to withdraw cash, check their account balances, and perform various banking transactions at their convenience.
- 2. Accessibility: ATMs are widely distributed and can be found in a variety of locations, including bank branches, shopping centers, airports, gas stations,

and more. This accessibility makes it easy for customers to access their money wherever they are.

- 3. Time-Saving: ATMs save time by reducing the need to visit a bank branch during regular business hours. Customers can quickly perform basic banking tasks without waiting in long lines.
- 4. Cash Withdrawals: ATMs allow customers to withdraw cash in various denominations, giving them flexibility in managing their finances and making purchases.
- 5. Balance Inquiries: Customers can check their account balances at ATMs, helping them keep track of their financial status and make informed decisions.
- 6. Deposits: Many ATMs now allow customers to deposit cash and checks into their accounts, eliminating the need to visit a bank teller for routine deposits.
- 7. Fund Transfers: Some ATMs offer the option to transfer funds between different accounts, including savings and checking accounts, or even to make payments to credit card accounts.
- 8. Enhanced Security: ATMs are equipped with security features such as PIN numbers and card authentication, making it difficult for unauthorized users to access a customer's account.
- 9. Multilingual Support: Many ATMs offer multiple language options, making it easier for customers from diverse backgrounds to use them.
- 10. Privacy: ATMs provide a level of privacy when conducting financial transactions, which can be important for customers who prefer not to discuss their finances in a public setting.

- 11. Emergency Access: In emergencies, ATMs can be a vital source of cash when banks are closed or inaccessible.
- 12. Cash Management for Businesses: ATMs are valuable for businesses that handle cash payments, as they provide a way to deposit cash outside of regular banking hours and reduce the need for frequent trips to the bank.
- 13. Reduced Cash Handling: Banks benefit from ATMs by reducing the need for as many physical bank branches and tellers, thus lowering operational costs.
- 14. Revenue Generation: Banks can earn revenue through ATM usage fees charged to non-customers who use their ATMs, making ATMs a potential source of income.
- 15. Increased Customer Loyalty: Offering convenient access to ATMs can enhance a bank's customer service and encourage customer loyalty.
- 16. Cardless Transactions: Some ATMs support cardless transactions, allowing customers to withdraw cash using their smartphones or other authentication methods.

It's worth noting that while ATMs offer many advantages, they also come with certain security considerations and maintenance costs for banks. Nevertheless, the convenience and accessibility they provide make them an essential part of modern banking infrastructure.

3.2 Disadvantages:

Despite their numerous advantages, Automated Teller Machines (ATMs) also have some disadvantages and challenges:

1. Maintenance Costs: ATMs require regular maintenance and servicing to ensure they function correctly. This includes routine checks, replenishing

cash, fixing hardware issues, and software updates. These maintenance costs can add up for banks and ATM operators.

- 2. Security Concerns: ATMs are vulnerable to various security risks, including card skimming, card trapping, and ATM hacking. Criminals often targetATMs to steal card information or cash, which can result in financial losses for both banks and customers.
- 3. Transaction Fees: While ATMs provide convenient access to cash, some banks charge fees for using ATMs that are not part of their network. These fees can be a significant expense for customers who frequently use out-of- network ATMs.
- 4. Limited Transactions: ATMs are designed primarily for basic transactions, such as cash withdrawals, balance inquiries, and deposits. More complex banking tasks, like opening new accounts or getting specialized financial advice, typically require a visit to a bank branch.
- 5. Cash Availability: ATMs can run out of cash, especially during peak usage times or in rural areas with limited access to banking services. Customers may face inconvenience when they encounter empty ATMs.
- 6. Accessibility Challenges: Some ATMs may not be accessible to individuals with disabilities, which can pose a barrier to financial inclusion. Efforts to make ATMs more accessible are ongoing but may not be universal.
- 7.Technology Dependence: ATMs rely on technology, and technical glitches or network outages can disrupt ATM services. Customers may be unable to access their funds during such outages.
- 8. Transaction Limits: Many ATMs have transaction limits in terms of the amount of cash that can be withdrawn in a single transaction. Customers who

need to withdraw large sums may need to make multiple transactions, incurring additional fees.

- 9. Confidentiality Concerns: Customers using ATMs in public spaces may worry about the privacy and security of their transactions, especially when entering their PINs or accessing their accounts in crowded areas.
- 10. Environmental Impact: The production and maintenance of ATMs, as well as the transportation of cash to ATMs, have environmental impacts, including energy consumption and carbon emissions.
- 11. Over-reliance on Technology: As ATMs become more prevalent, there is a concern that people may become overly reliant on them, potentially leading to reduced engagement with traditional banking services or face-to-face interactions with bank staff.
- 12. Risk of Fraud and Scams: Customers may fall victim to various ATM-related frauds and scams, such as receiving counterfeit currency from an ATM or being tricked into revealing sensitive information to fraudsters.
- 13. Card Loss or Theft: If a customer's ATM card is lost or stolen, unauthorized individuals may use it to withdraw funds, which can lead to financial losses until the issue is resolved.

CONCLUSION

In conclusion, developing a billing software using the Python programming language offers a comprehensive and efficient solution for managing financial transactions and generating invoices. By harnessing Python's versatility and extensive libraries, the software can provide a user-friendly interface, accurate calculations, and customizable features tailored to the specific needs of businesses. As Python continues to evolve, this software can adapt and integrate new functionalities like track expenses, and generate detailed reports enhances the overall efficiency of financial management, ensuring its relevance and reliability in the dynamic landscape of billing and accounting.

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