

**A MINOR PROJECT**  
**On**  
**BANKING MECHANISM USING**  
**FUNCTIONS**

Dissertation submitted in the partial fulfillment of the requirements  
for the award of the degree of

**BACHELOR OF TECHNOLOGY**

*By*

**DEPARTMENT OF PROJECTS**

**KOLLI.LAVANYA SRI VENKATA SARIKA**

**CSPRPY57**

*Under the esteemed Guidance of*

**Er. Y V D CHANDRA SEKHAR**

*Founder & Chief Executive Officer*

**CS CODENZ**



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**GUDIVADA – 521 323, ANDHRA PRADESH., INDIA**

**2023-2024**

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**CERTIFICATE**

This is to certify that dissertation entitled “**Banking Mechanism Using Functions**” submitted by **Kolli. Lavanya Sri Venkata Sarika ( C SPRPY57 )** in the partial fulfillment of the requirements for the award of the degree of **BACHELOR OF TECHNOLOGY** from **CS CODENZ** is a record of Bonafide work carried out by them under my guidance and supervision during the year 2023-2024. The result embodied in this dissertation have not been submitted by any other university or Institution for the award of any degree.

**Signature of the Supervisor**

**Er. Y V D CHANDRA SEKHAR**

Founder & CEO, CS CODENZ

## **DECLARATION**

I **Kolli. Lavanya Sri Venkata Sarika (CSPRPY57)** declared that the dissertation report entitled “ **Banking Mechanism Using Functions** ” is no more than 1,00,000 words in length including quotes and exclusive of tables, figures, bibliography, and references. This dissertation contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated this dissertation is our own work.

<b>Roll No</b>	<b>Name</b>	<b>Signature</b>
CSPRPY57	KOLLI. LAVANYA SRI VENKATA SARIKA	_____

Date:

Place:

## COs, POs and PSOs Mapping

Subject Name : MinorProject

Subject Code : PYCSCRT01

Academic Year : 2023 - 2024

Subject Code	Course Outcomes	
PYCSCRT01	CO1	Formulate solutions to computing problems using latest technologies and tools
	CO2	Work effectively in teams to design and implement solutions to computational problems and socially relevant issues
	CO3	Recognize the social and ethical responsibilities of a professional working in the discipline
	CO4	Apply advanced algorithmic and mathematical concepts to the design and analysis of software
	CO5	Devise a communication strategy (language, content and medium) to deliver messages according to the situation and need of the audience.
	CO6	Deliver effective presentations, extemporaneous or impromptu oral presentations. Setting up technical reports using technical tools.

### CO-PO-PSOs Mapping

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO 1	3	2	-	2	2	-	-	-	-	-	-	-	3	-	-
CO 2	2	3	-	2	2	-	-	-	-	-	-	-	3	-	-
CO 3	3	3	-	2	2	-	-	-	-	-	-	-	3	-	-
CO 4	3	3	-	2	2	-	-	-	-	-	-	-	3	-	-
CO 5	2	3	-	2	2	-	-	-	-	-	-	1	3	-	-
CO 6	2	3	2	2	3	-	-	-	2	2	2	2	3	-	-
<b>Avg</b>	<b>2.50</b>	<b>2.83</b>	<b>2.00</b>	<b>2.00</b>	<b>2.17</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2.00</b>	<b>2.00</b>	<b>2.00</b>	<b>1.50</b>	<b>3.00</b>	<b>-</b>	<b>-</b>

*Note: 1 – Good , 2 – Average, 3 - Excellent*

Signature of Student with Date

Signature of Guide with Date

## **ACKNOWLEDGEMENT**

This report dissertation could not have been written without the support of our guide **Er. Y V D Chandra Sekhar, Founder & CEO, CS CODENZ** who not only served as our superior but also encouraged and challenged us throughout our academic program our foremost thanks goes to his. Without his this dissertation would not have been possible. We appreciate him vast knowledge in many areas, and his insights, suggestions and guidance that helped to shape our research skills

It is needed with a great sense of pleasure and immense sense of gratitude that we acknowledge the help of these individuals. We owe many thanks to many people who helped and supported us during the writing of this report

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## **ABSTRACT**

The primary objective of the project, “Banking Mechanism Enhancement Using Functions,” is to enhance customer satisfaction and trust while addressing the multiple challenges of the banking sector. This project incorporates historical transaction data and real-time functionalities to empower financial institutions.

The project focuses on improving the accuracy, efficiency, and reliability of banking operations. It accomplishes this through the implementation of a user-friendly interface for banking analysts, which in turn leads to better services for customers.

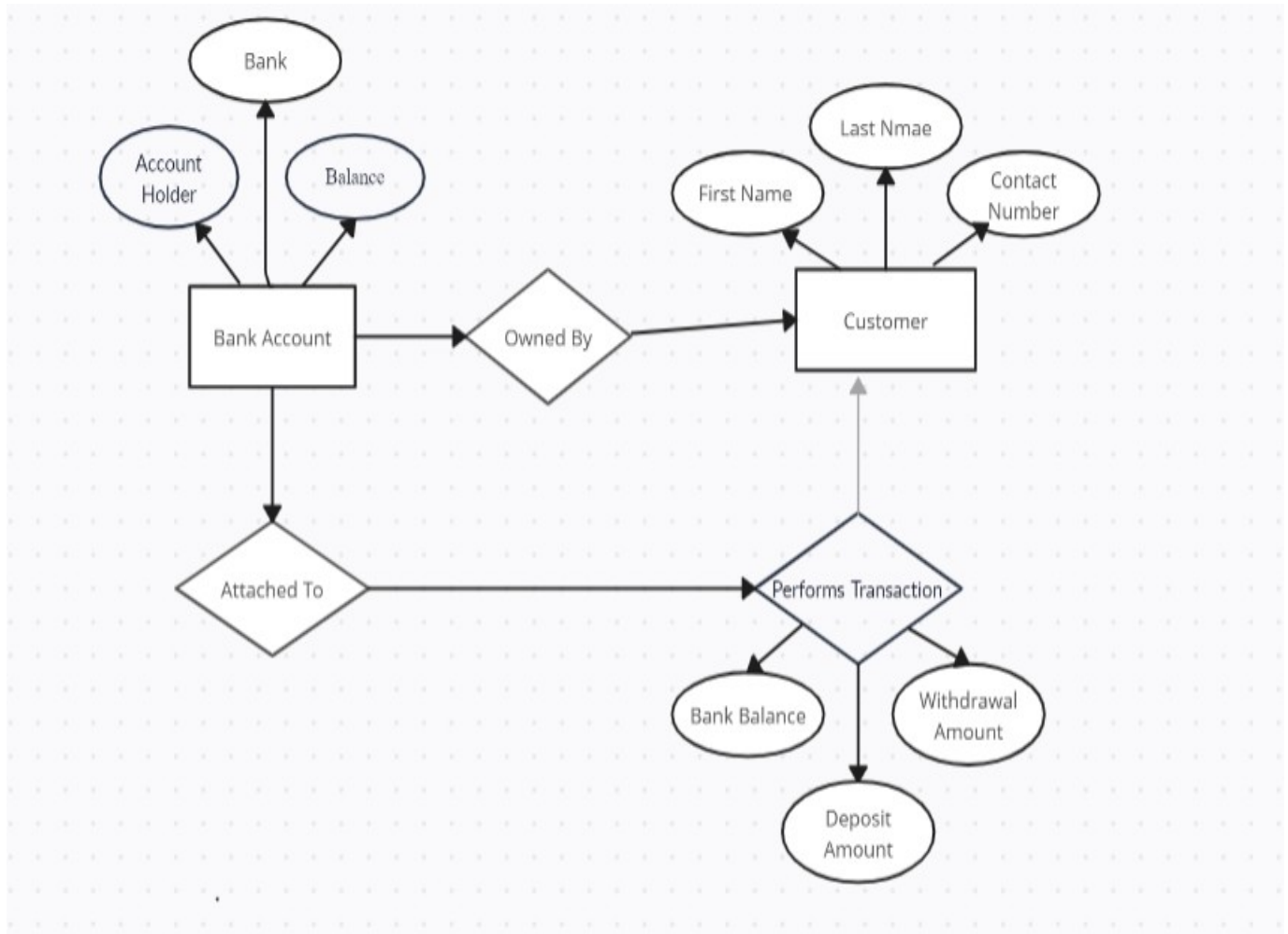


## **PROBLEMSTATEMENT**

In today's dynamic and highly regulated financial industry, maintaining customer trust and satisfaction is paramount for banking institutions. However, the banking sector faces persistent challenges, including fraudulent activities, security breaches, and operational inefficiencies, all of which can lead to substantial financial losses and a decline in customer confidence.

The problem at hand is to develop an effective and precise banking mechanism using function-based programming that not only ensures the security of financial transactions but also enhances operational efficiency and minimizes financial losses through the utilization of advanced technology and industry best practices.

# ER-DIAGRAM



# **REQUIREMENTS**

## **HARDWARE REQUIREMENTS:**

- Personal Computer/Laptop with minimum RAM(4GB), ROM(128GB) and Processor(i5).
- Good Latency Internet Access.

## **SOFTWARE REQUIREMENTS:**

- Basic Search Engine (Google).
- Google Colaboratory.
- Microsoft Word.

## **DESCRIPTION**

Creating a full-fledged banking system in Python is a complex and extensive task, but I can provide a simplified example of a basic banking mechanism using functions. In this example, we'll create a simple system for managing customer accounts, deposits, withdrawals, and balance inquiries.

## CODE

```
# Initialize account balance
account_balance = 1000

# Function to check balance
def check_balance():
    print(f"Your account balance is ${account_balance:.2f}")

# Function to make a deposit
def make_deposit(amount):
    global account_balance
    account_balance += amount
    print(f"Deposited ${amount:.2f} into your account.")
    check_balance()

# Function to make a withdrawal
def make_withdrawal(amount):
    global account_balance
    if amount <= account_balance:
        account_balance -= amount
        print(f"Withdrew ${amount:.2f} from your account.")
        check_balance()
    else:
        print("Insufficient funds. Withdrawal failed.")

# Function to perform a transfer
def make_transfer(amount, recipient):
    global account_balance
    if amount <= account_balance:
        account_balance -= amount
        recipient["balance"] += amount
        print(f"Transferred ${amount:.2f} to {recipient['name']}'s account.")
        check_balance()
    else:
```

```
print("Insufficient funds. Transfer failed.")
```

```
# Main function
```

```
def main():
```

```
    print("Welcome to the Simple Banking System!")
```

```
    while True:
```

```
        print("\nChoose an option:")
```

```
        print("1. Check Balance")
```

```
        print("2. Make a Deposit")
```

```
        print("3. Make a Withdrawal")
```

```
        print("4. Make a Transfer")
```

```
        print("5. Quit")
```

```
        choice = input("Enter your choice: ")
```

```
        if choice == "1":
```

```
            check_balance()
```

```
        elif choice == "2":
```

```
            amount = float(input("Enter the deposit amount: $"))
```

```
            make_deposit(amount)
```

```
        elif choice == "3":
```

```
            amount = float(input("Enter the withdrawal amount: $"))
```

```
            make_withdrawal(amount)
```

```
        elif choice == "4":
```

```
            amount = float(input("Enter the transfer amount: $"))
```

```
            recipient_name = input("Enter the recipient's name: ")
```

```
            recipient = {"name": recipient_name, "balance": 0}
```

```
            make_transfer(amount, recipient)
```

```
        elif choice == "5":
```

```
            print("Thank you for using the Simple Banking System!")
```

```
            break
```

```
        else:
```

```
            print("Invalid choice. Please select a valid option.")
```

```
main()
```

## **OUTPUT**

Welcome to the Simple Banking System!

Choose an option:

1. Check Balance
2. Make a Deposit
3. Make a Withdrawal
4. Make a Transfer
5. Quit

Enter your choice: 1

Your account balance is \$1000.00

Choose an option:

1. Check Balance
2. Make a Deposit
3. Make a Withdrawal
4. Make a Transfer
5. Quit

Enter your choice: 2

Enter the deposit amount: \$100

Deposited \$100.00 into your account.

Your account balance is \$1100.00

Choose an option:

1. Check Balance
2. Make a Deposit
3. Make a Withdrawal

4. Make a Transfer

5. Quit

Enter your choice: 4

Enter the transfer amount: \$500

Enter the recipient's name: Sarika

Transferred \$500.00 to Sarika's account.

Your account balance is \$600.00

Choose an option:

1. Check Balance

2. Make a Deposit

3. Make a Withdrawal

4. Make a Transfer

5. Quit

Enter your choice: 3

Enter the withdrawal amount: \$2000

Insufficient funds. Withdrawal failed.

Choose an option:

1. Check Balance

2. Make a Deposit

3. Make a Withdrawal

4. Make a Transfer

5. Quit

Enter your choice: 5

Thank you for using the Simple Banking System!



## **SUMMARY**

This simplified Python script defines functions to create accounts, deposit money, withdraw money, transfer money and check balances.

In practice, real-world banking mechanisms are highly complex and require advanced software, security measures, and extensive regulatory compliance to ensure the safety and reliability of financial services. These systems continue to evolve with advancements in technology and changes in global financial landscapes to meet the ever-growing demands of customers in the financial industry.

Please note that this example lacks error handling, security measures, and many other features found in real banking systems. Real-world banking systems would also utilize databases and handle transactions more rigorously.