A
Project Report
On
"Bank Management System"

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CSE

DEPSTAR

At: Changa, Dist: Anand – 388421

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CERTIFICATE

This is to certify that the report entitled "**Bank Management System**" is a bonafied work carried out by **Mr. Param Jani (19DCS042), Ishaan Padmashali (19DCS069), Alap Pandya (19DCS073)** under the guidance and supervision of **Assistant Prof. Khushi Patel** for the subject CE251 **Java Mini-Project** CSE of 3rd Semester of Bachelor of Technology in **DEPSTAR** at Faculty of Technology & Engineering – CHARUSAT, Gujarat.

To the best of my knowledge and belief, this work embodies the work of candidate himself, has duly been completed, and fulfills the requirement of the ordinance relating to the B.Tech. Degree of the University and is up to the standard in respect of content, presentation and language for being referred to the examiner.

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ACKNOWLEDGEMENT

I, the developer of the Bank Management System named Param Jani, Ishaan Padmashali, Alap Pandya, with immense pleasure and commitment would like to present the project assignment. The development of this project has given me wide opportunities to think, implement and interact with various aspects of project development skills.

Every work that one completes successfully stands on the constant encouragement, good will and support of the people around. I hereby avail this opportunity to express my gratitude to number of people who extended their valuable time, full support and cooperation in developing the project.

I express deep sense of gratitude towards our Dean of FTE, Principal DEPSTAR, Dr. Amit Ganatra and project guides Prof. Khushi Patel and Prof. Rima Patel for the support during the whole session of study and development. It is because of them, that I was prompted to do hard work, adopting new skills.

I would also like to thank my project partners. They altogether provided me favorable environment, and without them it would not have been possible to achieve my goal.

Thank You,
 Param Jani (19DCS042)
 Ishaan Padmashali (19DCS069)
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ABSTRACT

The availability of the software for almost every process or every system has taken the world in its top-gear and fastens the day-to-day life. So, we have tried our best to develop the software program for the Bank Management System where all the tasks to manage the bank system are performed easily and efficiently.

This application helps the customer to perform simple banking tasks in a much efficient manner. The design and development of this Bank Management System provides an approach which is much simpler to use hence helping customers from all strata of society and thus helps in managing the customer's information which strengthens the relationships between banks and their customers. The programming language used to develop this project is Java. It can keep the information of checking balance, deposit, withdrawal and previous transactions. By providing the right solutions this application helps in improving customer satisfaction.

ABSTRACT

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PROJECT DEFINITION

- The bank management system is an application for maintaining a person's account in a bank.

- The system provides the access to the customer to create an account, deposit/withdraw the cash from his account, also to view reports of all accounts present.

- The following presentation provides the specification for the system.

DESCRIPTION

- The Bank Management System is a software created to improve a customer's banking experience.
- It nurtures the needs of an end banking user by providing a better way to perform banking tasks.
- An efficient interface has been developed to make management easy and quick, which is not possible with the manual systems.
- The software gives the user complete access and control to their account.

SOFTWARE AND HARDWARE REQUIREMENTS

Software:

- Java Development kit (latest version suggested)

- Eclipse IDE, NetBeans, Visual Studio Code, Scite, Notepad

- Windows 7 onwards. (in small screen, non-graphics mode)

- Minimum 256 MB

- Minimum 10 MB of space

Hardware:

- Core i3Processor

- RAM 2 GB

- HDD Capacity 500GB

MAJOR FUNCTIONALITY

Firstly, system asks for user's name followed by his/her account number that is referred to as user ID. Further system asks from user to choose from five functionalities as follows:

• Check balance

• Deposit

• Withdrawal

• Previous Transaction

• Exit the system

Suppose user selects check balance then his/her balance in INR is printed by the system. The flow of functions continues until user exits the system.

Suppose user opts for depositing money into the account then he/she need to select 2 option and then system asks for the amount to be deposited. User needs to enter preferable amount in INR. Later user can find change in balance by viewing check balance function.
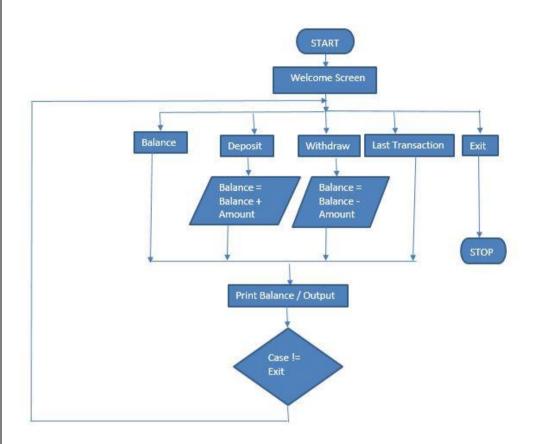
Similarly, for withdrawal user need to enter money in INR. And can see change in bank balance through first function.

We can also opt for depositing x amount money and withdrawing y amount at same time. By using second and third functionalities simultaneously.

We have also added a feature wherein user can see previous transaction. If the user has multiple transaction in a day, he/she might get confused. So, in such case our fourth function comes into action which helps user to see their previous transaction along with necessary information like amount deposition or withdrawal.

Once all your necessary functions are complete you can securely exit the system.

SYSTEM FLOW CHART

CODE

```java
import java.util.Scanner;
import java.lang.*;

public class BankingApplication
{

    public static void main(String args[])
    {

            BankAccount obj = new BankAccount();
            obj.showMenu();

    }

}

class BankAccount
{
    int balance=500000;
    int previousTransaction;
    String Name;
    String Id;

    void deposit(int amount)
    {
            if(amount != 0)
            {
                    balance = balance + amount;
                    previousTransaction = amount;
            }
    }

    void withdraw(int amount)
    {
            if(amount != 0)
            {
                    balance = balance - amount;
                    previousTransaction = -amount;
            }
    }

    void getPreviousTransaction()
    {

            if(previousTransaction > 0)
```

```java
			{
				System.out.println("Deposited: " + previousTransaction);
			}

			else if(previousTransaction < 0)
			{
				System.out.println("Withdraw: " +Math.abs(previousTransaction));
			}

			else
			{
				System.out.println("No Transaction Occured");
			}

	}

	void showMenu()
	{

		int option;
		Scanner sc=new Scanner(System.in);
		System.out.println("Welcome");
		System.out.println("Enter your name");
		String Name= sc.nextLine();
		System.out.println("Hello Mr./Mrs. "+Name);
		System.out.println("Enter your User ID");
		String Id= sc.nextLine();
		System.out.println();
		System.out.println("1 : Check Your Balance");
		System.out.println("2 : Deposit");
		System.out.println("3 : Withdraw");
		System.out.println("4 : Previous Transaction");
		System.out.println("5 : Exit The System");
		do
		{
			System.out.println("-----------------------------------------------------------------------------------------------");
			System.out.println("Enter Your Option");
			option = sc.nextInt();
			switch (option)
			{

				case 1:
					System.out.println("-------------------------------------------------------------------------------------");
					System.out.println("Balance = "+balance);
					break;

				case 2:
```

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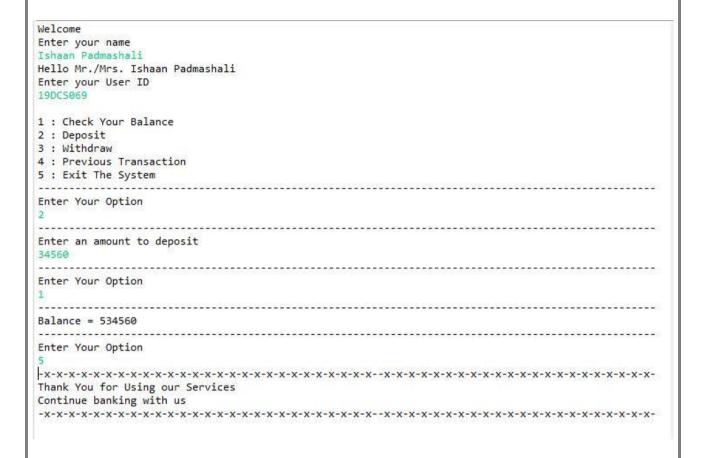
```java
                                System.out.println("------------------------------------------
--------------------------------------------------------");
                                System.out.println("Enter an amount to deposit ");
                                int amount = sc.nextInt();
                                deposit(amount);
                                break;

                        case 3:
                                System.out.println("------------------------------------------
--------------------------------------------------------");
                                System.out.println("Enter an amount to withdraw ");
                                int amount2 = sc.nextInt();
                                withdraw(amount2);
                                break;

                        case 4:
                                System.out.println("------------------------------------------
--------------------------------------------------------");
                                getPreviousTransaction();
                                break;

                        case 5:
                                System.out.println("-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-
x-x-x-x-x-x-x-x-x--x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-");
                                break;

                        default:
                                System.out.println("Invalid Option!! Please Enter
Correct Opton...");
                                break;

                }
        }
        while(option!= 5);
        System.out.println("Thank You for Using our Services");
        System.out.println("Continue banking with us");
        System.out.println("-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x--
x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-");
    }
}
```

OUTPUT
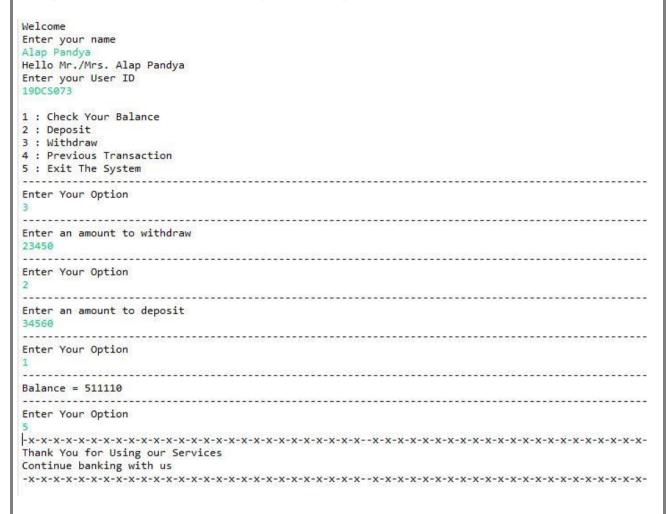
Output of balance check

```
Welcome
Enter your name
Param Jani
Hello Mr./Mrs. Param Jani
Enter your User ID
19DCS042

1 : Check Your Balance
2 : Deposit
3 : Withdraw
4 : Previous Transaction
5 : Exit The System
---------------------------------------------------------------------------------------
Enter Your Option
1
---------------------------------------------------------------------------------------
Balance = 500000
---------------------------------------------------------------------------------------
Enter Your Option
5
-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x--x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-
Thank You for Using our Services
Continue banking with us
-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x--x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-
```

Output of deposit & balance check

```
Welcome
Enter your name
Ishaan Padmashali
Hello Mr./Mrs. Ishaan Padmashali
Enter your User ID
19DCS069

1 : Check Your Balance
2 : Deposit
3 : Withdraw
4 : Previous Transaction
5 : Exit The System
-----------------------------------------------------------------------------------
Enter Your Option
2
-----------------------------------------------------------------------------------
Enter an amount to deposit
34560
-----------------------------------------------------------------------------------
Enter Your Option
1
-----------------------------------------------------------------------------------
Balance = 534560
-----------------------------------------------------------------------------------
Enter Your Option
5
-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x--x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-
Thank You for Using our Services
Continue banking with us
-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x--x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-
```

Output of withdrawal along with deposit

```
Welcome
Enter your name
Alap Pandya
Hello Mr./Mrs. Alap Pandya
Enter your User ID
19DCS073

1 : Check Your Balance
2 : Deposit
3 : Withdraw
4 : Previous Transaction
5 : Exit The System
----------------------------------------------------------------------
Enter Your Option
3
----------------------------------------------------------------------
Enter an amount to withdraw
23450
----------------------------------------------------------------------
Enter Your Option
2
----------------------------------------------------------------------
Enter an amount to deposit
34560
----------------------------------------------------------------------
Enter Your Option
1
----------------------------------------------------------------------
Balance = 511110
----------------------------------------------------------------------
Enter Your Option
5
-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x--x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-
Thank You for Using our Services
Continue banking with us
-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x--x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-
```

Output of previous transaction

```
Welcome
Enter your name
Alap Pandya
Hello Mr./Mrs. Alap Pandya
Enter your User ID
19DCS073

1 : Check Your Balance
2 : Deposit
3 : Withdraw
4 : Previous Transaction
5 : Exit The System
-------------------------------------------------------------------------------
Enter Your Option
2
-------------------------------------------------------------------------------
Enter an amount to deposit
567890
-------------------------------------------------------------------------------
Enter Your Option
4
-------------------------------------------------------------------------------
Deposited: 567890
-------------------------------------------------------------------------------
Enter Your Option
1
-------------------------------------------------------------------------------
Balance = 1067890
-------------------------------------------------------------------------------
Enter Your Option
5
-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x--x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-
Thank You for Using our Services
Continue banking with us
-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x--x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-
```
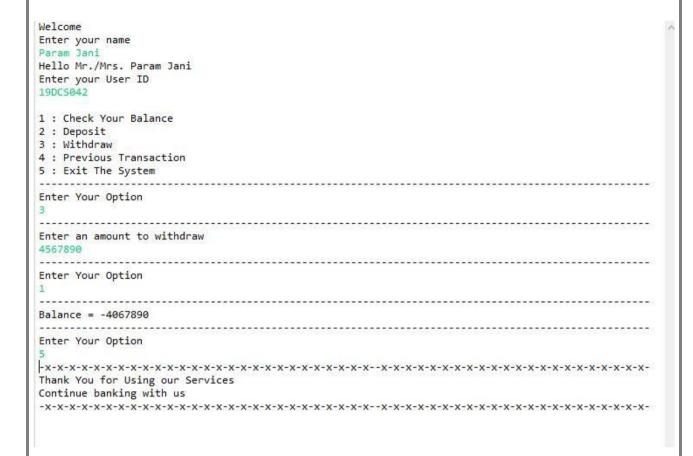
Output of previous transaction in case of no transaction

```
Welcome
Enter your name
Ishaan padmashali
Hello Mr./Mrs. Ishaan padmashali
Enter your User ID
19DCS069

1 : Check Your Balance
2 : Deposit
3 : Withdraw
4 : Previous Transaction
5 : Exit The System
------------------------------------------------------------------------------------
Enter Your Option
4
------------------------------------------------------------------------------------
No Transaction Occured
------------------------------------------------------------------------------------
Enter Your Option
5
-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x--x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-
Thank You for Using our Services
Continue banking with us
-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x--x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-
```

Output of credit in case of large transaction

```
Welcome
Enter your name
Param Jani
Hello Mr./Mrs. Param Jani
Enter your User ID
19DCS042

1 : Check Your Balance
2 : Deposit
3 : Withdraw
4 : Previous Transaction
5 : Exit The System
-------------------------------------------------------------------------------
Enter Your Option
3
-------------------------------------------------------------------------------
Enter an amount to withdraw
4567890
-------------------------------------------------------------------------------
Enter Your Option
1
-------------------------------------------------------------------------------
Balance = -4067890
-------------------------------------------------------------------------------
Enter Your Option
5
-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x--x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-
Thank You for Using our Services
Continue banking with us
-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x--x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-x-
```

LIMITATIONS OF THE PROJECT

- Technology and Service Interruptions
- Security and Identity Theft Concerns
- Limitations on Deposits
- Convenient but Not Always Faster
- Lack of Personal Banker Relationship
- A Limited Scope of Services

PROJECT OUTCOMES

We developed a project for solving financial applications of a customer in banking environment like checking bank balance, depositing money in account, withdrawing money from account, checking previous transactions and many more in order to nurture the needs of an end banking user by providing various ways to perform banking tasks that too simultaneously. Also, to enable the users to have additional functionalities which are not provided under a conventional banking project. The Bank Account Management System undertaken as a project is based on relevant technologies. The main aim of this project is to develop software for Bank Account Management System. This project has been developed to carry out the processes easily and quickly, which is not possible with the manuals systems, which are overcome by our system.

FUTURE ENHANCEMENTS

We need to work more into creating better technology and service that can run with negligible interruptions. Provide high security to the transactions. We also reduce online frauds by giving biometric verification support. We also aim to bring better and user friendly ui/ux. We can also add option to video call user's personal banker/ portfolio manager which will omit the drawback of lack of personal relationship with bankers. By these ways we can increase scope of services.

FUTURE ENHANCEMENTS

REFERENCES

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