

**Maharashtra State Board of Technical Education  
Mumbai. (M.S.)**



**MICRO PROJECT**  
**On**  
**“MINI BANKING SYSTEM”**

**Submitted by**  
**Atharva Nagesh Otari**  
**Chinmay Kailas Chopade**  
**Gauri Uday Kulkarni**



**G.S. Mandal's**  
**Department of Computer Engineering**  
**Marathwada Institute of Technology,**  
**Polytechnic, Aurangabad.**

**Academic Year: - 2020-2021**



# MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION

## CERTIFICATE

This is to certify that : -

Roll No.	Name of Student	Enrollment No.	Exam Seat No.
04	Atharva N. Otari	1900660156	
09	Chinmay K. Chopade	1900660162	
24	Gauri U. Kulkarni	1900660178	

have successfully completed **“MINI BANKING SYSTEM”** Micro-project for the subject **“JRP (JAVA Programming)”** in the enclosed “Portfolio” during his / her tenure of Completing the Diploma in Computer Engineering (CO4I) in Academic Year 2020-2021 from M.I.T. Polytechnic, Aurangabad with Institute Code 0066.

Date: 04.06.21

Prof. P.S.Chaudhari  
**Guide**

Prof. R. D. Deshpande  
**H.O.D.**

**Principal**  
Marathwada Institute of Technology,  
Polytechnic, Aurangabad

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# Micro Project (Teacher Evaluation Sheet)

Name of Programme: Diploma in Computer Engineering

Semester: - IV

Course Title: JRP (JAVA)

Code: 22412

Title of Micro Project: **MINI BANKING SYSTEM**

## Course Outcomes Achieved:

- a) Develop a program using Object Oriented Methodology in JAVA.
- b) Apply concept of Inheritance for code reusability.
- c) Develop program for handling I/O and file streams.

Roll No.	Name of Student	Enrollment No.	Exam Seat No.	Process and Product Assessment (06)	Individual Presentation / Viva (04)	Total Marks (10)
04	Atharva N. Otari	1900660156				
09	Chinmay K. Chopade	1900660162				
24	Gauri U. Kulkarni	1900660178				

Comments / Suggestions about work:

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Signature of Teacher : \_\_\_\_\_

Name and Designation  
of the Teacher : \_\_\_\_\_

**Annexure-I**

# **Micro-Project Proposal**

(Format for Micro-Project Proposal About 1-2 pages)

**Title of Micro-Project : MINI BANKING SYSTEM**

## **1.0 Aim/Benefits of Micro Project (minimum 30-50 words)**

- a) Pay Your Bills Online
- b) View Your Transactions
- c) Transfer Money Between Accounts

## **2.0 Course Outcomes Addressed**

- a) Develop programs using Object Oriented methodology in Java.
- b) Apply concept of inheritance for code reusability.
- c) Develop programs for handling I/O and file streams.

## **3.0 Proposed Methodology (Procedure in brief that will be followed to do the micro-project in about 100-200 words.)**

1. For Micro-Project First We decided the topic MINI BANKING SYSTEM.
2. Then I Search Inrmation and collect information about the topic.
3. Then Prepared Coding in notebook .
4. Then We Watch video and we started actually programing.
5. We Found some error and we ask to our respective teacher and she helped us to run program,
6. After getting Proper Reference,We completed Our Project.

**4.0 Action Plan (Sequence and time required for major activity.),**

<b>Sr. No</b>	<b>Details of Activity</b>	<b>Planned Start Date</b>	<b>Planned Finish Date</b>	<b>Name of Responsible Team Members</b>
1.	Information Gathering	04.04.21	10.04.21	Chinmay
2.	Program Checking	20.04.21	27.04.21	Gauri
3.	Program Making	06.05.21	15.05.21	Gauri
4.	Report Making	19.05.21	25.05.21	Atharva
5.	Finalizing and PDF making	31.05.21		Atharva

**5.0 Resources required (major resources such as raw material, some machining facility, software etc.)**

<b>Sr. No</b>	<b>Name of Resource/Material</b>	<b>Specification</b>	<b>Qty.</b>	<b>Remarks</b>
1	LAPTOP	I.3, I.5, WINDOW10		
2	SOFTWARE	JDK, ECLIPSE		
3				

**Names of Team Members with Roll No. : -**

<b>Roll No.</b>	<b>Name of Student</b>
04	Atharva N. Otari
09	Chinmay K. Chopade
24	Gauri U. Kulkarni

# Micro-Project Report

(Format for Micro-Project Report minimum 4 pages)

**Title of Micro-Project : - MINI BANKING SYSTEM**

## **1.0 Rationale (Importance of the project, in about 30 to 50 words. This is a modified version of the earlier one written after the work)**

Microfinance is important because it provides resources and access to capital to the financially underserved, such as those who are unable to get checking accounts, lines of credit, or loans from traditional banks.

## **2.0 Aim/Benefits of Micro Project:**

1. Pay Your Bills Online.
2. View Your Transactions.
3. Transfer Money Between Accounts.

## **3.0 Course Outcomes Achieved (Add to the earlier list is more Cos are addressed)**

- a) Develop programs using Object Oriented methodology in Java.
- b) Apply concept of inheritance for code reusability.
- c) Develop programs for handling I/O and file streams.

#### **4.0 Literature Review : -**

This project analyses and exposes the banking channels and service preferences of most bank management systems in Nigeria and examines the factors influencing the intention to adopt or to continue the use of the existing banking among both users and non-users of internet banking. It is shown that although the banking sector in Nigeria is advancing, but bank customer's management systems in Nigeria is yet to be properly utilized as a real added value tool to improve customer relationship and confidence and to attain cost advantages. Most banks throughout the world, ICT have become the back bone of financial service delivery and finance networks have shifted from paper-based to the digital mode. However, digital financial service delivery confronts a number of challenges regarding its efficacy inclosing the "financial divide" affecting the poor .Although online banking is considered not expensive way to reach clients, its accessibility is hindered by a number of factors including poor Internet penetration, lack of e-banking awareness and customer inflexibility to new technology.

#### **5.0 Actual Methodology Followed (Write step wise work done, data collected and its analysis (if any). The contribution of individual member may also be noted.)**

Firstly, we all team members met virtually on Google meet platform and decided how to do the micro-project what will be prerequisites and its requirements. Then after discussing we together distributed the work what each team member will do, then as per decision Chinmay, started doing his work that is information gathering from various resources on the internet, such as blog websites, YouTube videos etc. He collected all the raw information from the internet and gave it to Gauri. After that she went through all the information collected and short the data by keeping only important information which we needed to know to establish any secure mini banking system. Then, after this, we told Gauri to bring the Program code from the internet which will be easy to understand. Then she done her work efficiently. Even though we have distributed our work but still at every point we all used to notify each other every small thing about our work. After this we need to make a small report for this data to make people clarify about what the project actually is? So, Atharva took the charge for it and completed the report after all the data have been gathered and written, Atharva made the pdf by combining all the information, code and report pages. Finally, we reviewed the pdf before sending it to the teacher and thus, we made our micro-project.



**6.0 Actual Resources Used (mention the actual resources used).**

Sr. No	Name of Resource/Material	Specification	Qty.	Remarks
1	LAPTOP	I.3,I.5,WINDOW10		
2	SODTWARE	JDK,ECIIPSE		
3				

**7.0 Outputs of the micro projects (Drawings of the prototype, drawing of survey, Presentation of collected data, findings etc.)**



## **8.0 Skill Developed/Learning outcome of this micro project**

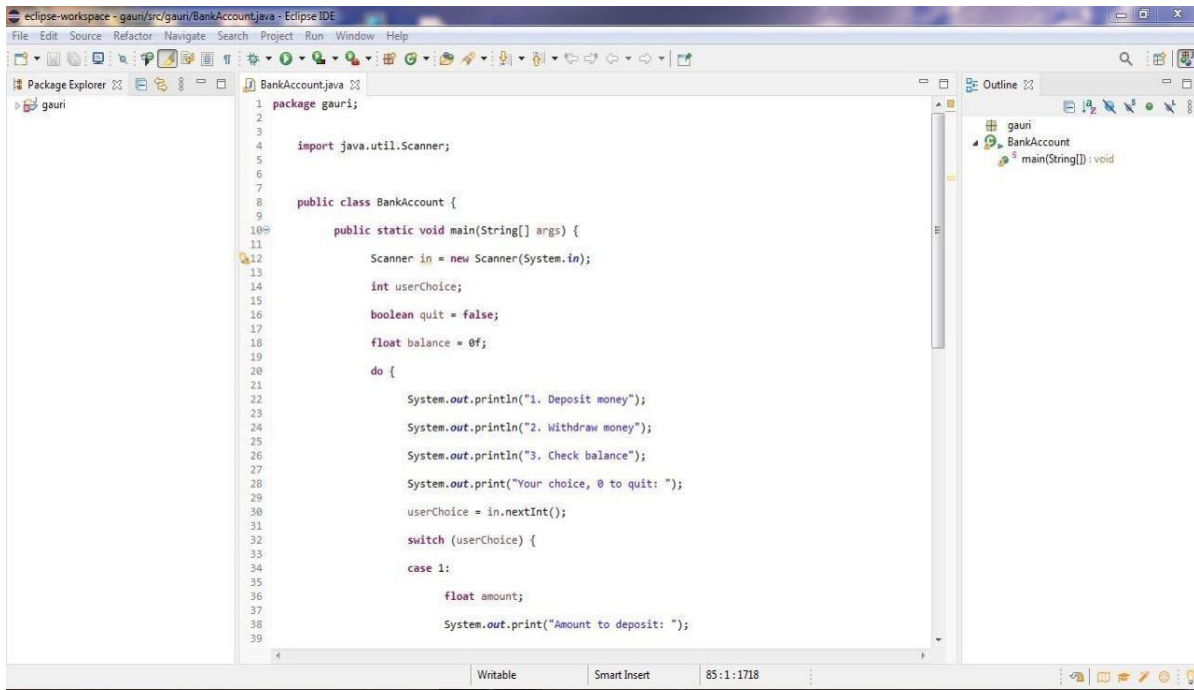
Learned a lot of things like how to prepare code, learned how banking system worked while gathering information. A banking system is a group or network of institutions that provide financial services for us. Programming skill is develop.

## **9.0 Applications of this micro project : -**

Due to the nature of the connectivity between bank and its customers, it would be impractical to expect customers to regularly visit banks or connect to a web site for regular upgrade of their mobile banking application. It will be expected that the mobile application itself check the upgrades and updates and download necessary patches

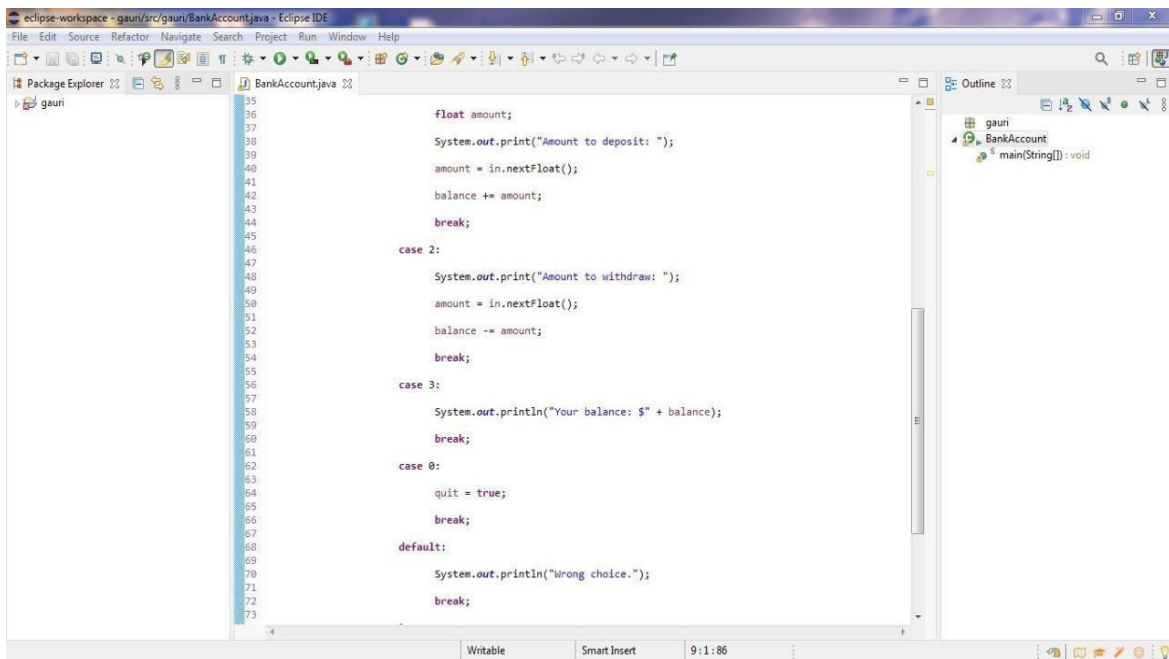
These can include the learning curve associated with new technology, having fears about possible security compromises. Using a Mini Bank people it'll be easy to withdraw your cash, update your account and many more things.

# PROGRAM:-



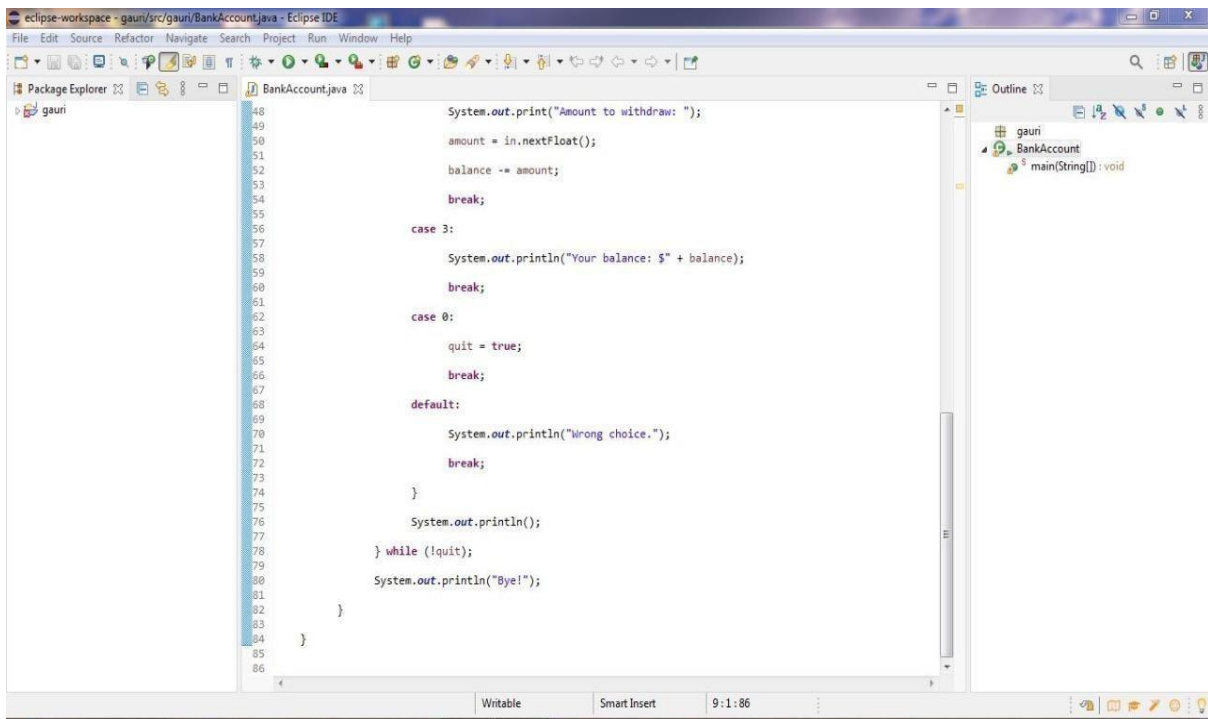
The screenshot shows the Eclipse IDE with the file `BankAccount.java` open. The code defines a package `gauri`, imports `java.util.Scanner`, and declares a public class `BankAccount`. Inside the class, there is a static `main` method that takes a `String[] args` parameter. The `main` method initializes a `Scanner` object `in` from `System.in`, declares variables `int userChoice`, `boolean quit = false`, and `float balance = 0f`. It then enters a `do` loop where it prints three menu options: "1. Deposit money", "2. Withdraw money", and "3. Check balance". It prompts the user for a choice and reads it into `userChoice`. A `switch` statement follows, with a `case 1:` block that declares a `float amount` and prints "Amount to deposit: ".

```
1 package gauri;
2
3
4 import java.util.Scanner;
5
6
7
8 public class BankAccount {
9
10
11     public static void main(String[] args) {
12
13         Scanner in = new Scanner(System.in);
14
15         int userChoice;
16         boolean quit = false;
17         float balance = 0f;
18
19         do {
20
21             System.out.println("1. Deposit money");
22             System.out.println("2. Withdraw money");
23             System.out.println("3. Check balance");
24             System.out.print("Your choice, 0 to quit: ");
25             userChoice = in.nextInt();
26
27             switch (userChoice) {
28
29                 case 1:
30
31                     float amount;
32                     System.out.print("Amount to deposit: ");
```



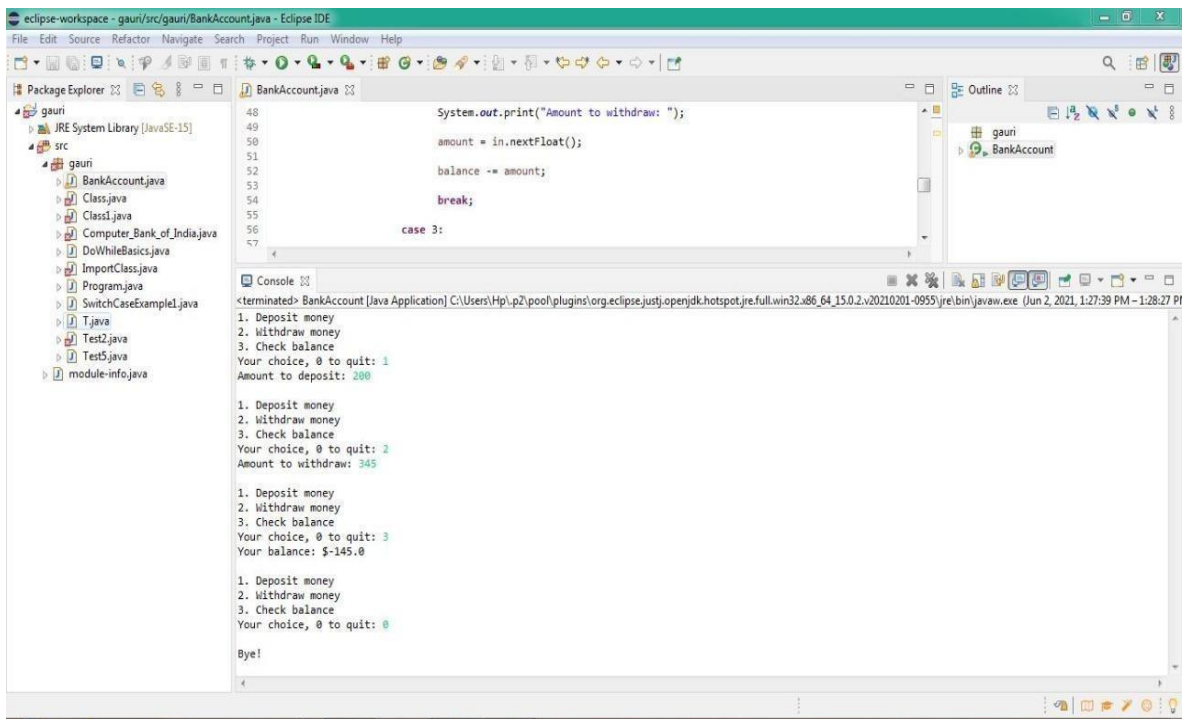
This screenshot shows the continuation of the `BankAccount.java` program. It continues the `switch` statement from the previous block. `case 1:` continues by reading the deposit amount into `amount` using `in.nextFloat()`, adding it to the balance (`balance += amount`), and then `break`. `case 2:` prints "Amount to withdraw: ", reads the withdrawal amount into `amount`, subtracts it from the balance (`balance -= amount`), and then `break`. `case 3:` prints the current balance as "Your balance: \$" followed by the value of `balance`, and then `break`. `case 0:` sets `quit = true`, prints `break`. The `default:` case prints "Wrong choice." and `break`. The `do` loop ends with a closing brace.

```
35
36         float amount;
37         System.out.print("Amount to deposit: ");
38         amount = in.nextFloat();
39         balance += amount;
40         break;
41     case 2:
42         System.out.print("Amount to withdraw: ");
43         amount = in.nextFloat();
44         balance -= amount;
45         break;
46     case 3:
47         System.out.println("Your balance: $" + balance);
48         break;
49     case 0:
50         quit = true;
51         break;
52     default:
53         System.out.println("Wrong choice.");
54         break;
55 }
56
57
58
59
60
61
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72
73
```



```
48         System.out.print("Amount to withdraw: ");
49
50         amount = in.nextFloat();
51
52         balance -= amount;
53
54         break;
55
56     case 3:
57
58         System.out.println("Your balance: $" + balance);
59
60         break;
61
62     case 0:
63
64         quit = true;
65
66         break;
67
68     default:
69
70         System.out.println("Wrong choice.");
71
72         break;
73
74     }
75
76     System.out.println();
77
78 } while (!quit);
79
80 System.out.println("Bye!");
81
82 }
83
84 }
85
86 }
```

## OUTPUT:-



```
<terminated> BankAccount [Java Application] C:\Users\Hp\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.jdk-15.0.2.v20210201-0955\jre\bin\javaw.exe (Jun 2, 2021, 1:27:39 PM - 1:28:27 PM)
1. Deposit money
2. Withdraw money
3. Check balance
Your choice, 0 to quit: 1
Amount to deposit: 200

1. Deposit money
2. Withdraw money
3. Check balance
Your choice, 0 to quit: 2
Amount to withdraw: 345

1. Deposit money
2. Withdraw money
3. Check balance
Your choice, 0 to quit: 3
Your balance: $-145.0

1. Deposit money
2. Withdraw money
3. Check balance
Your choice, 0 to quit: 0

Bye!
```