README

Video of the Demo Project

Video Demo Project Link: https://drive.google.com/file/d/1Fo8-S-TlLfa9qsTyOWsQh4VjTN7Byihy/view?usp=sharing

Presentation

A simple ATM bank simulation in dart that only holds one account.

Flowchart:

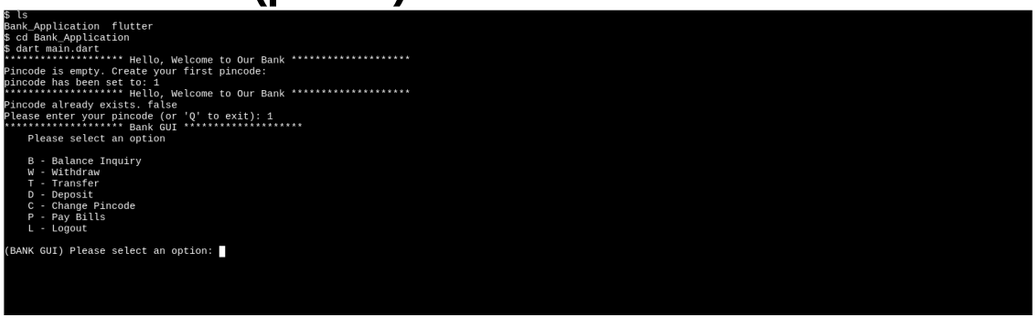
1. ☑ Enter Pincode
    1. Code:
        - ## Main Menu (code):

```
void main() {
  print("******************** Hello, Welcome to Our Bank ********************");

  if (pincode == "" && loggedIn == false) {
    print("Pincode is empty. Create your first pincode:");

    setPincode();

    if (!pincode.isEmpty) {
      main(); // go back to main menu and go to the 3 attempts phase.
    }
  } else {
    int attempts = 0; // 3 strikes.

    print("Pincode already exists. $loggedIn");

    while (attempts < 3 && !loggedIn) {
      stdout.write("Please enter your pincode (or 'Q' to exit): ");
      String? userInput = stdin.readLineSync(); // Read user input
      userInput = userInput?.toUpperCase(); // Convert input to uppercase
      if (userInput == pincode) {
        loggedIn = true;
        Bank_UI();
      } else if (userInput == "Q") {
        print("Exiting...");
        exit(0);
      } else if (userInput != pincode) {
        print("Incorrect pincode. Please try again.");
        attempts++;
      } else {
        print("ERROR: Invalid input. Please try again.");
      }
    }
```

```
    print("Too many attempts. Please try again later.");
    exit(0);
  }
}
```

2. Photo Output:

- # Main Menu (photo):



2. ☑ Exit the program if 3 times failed upon entering the PIN is entered incorrectly three times.

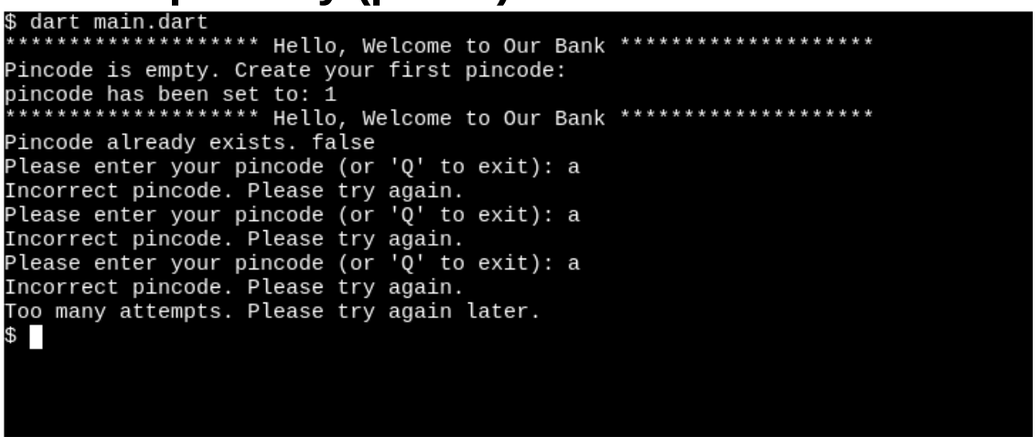
1. Code:

- # 3 Attempts only (code):

```
if (pincode == "" && loggedIn == false) {
    print("Pincode is empty. Create your first pincode:");

    setPincode();

    if (!pincode.isEmpty) {
      main(); // go back to main menu and go to the 3 attempts
phase.
    }
  } else {
    int attempts = 0; // This counter is used to count logins.
3 times only.

    print("Pincode already exists. $loggedIn");

    while (attempts < 3 && !loggedIn) {
      stdout.write("Please enter your pincode (or 'Q' to
exit): ");
      String? userInput = stdin.readLineSync(); // Read user
input
      userInput = userInput?.toUpperCase(); // Convert input
to uppercase
      if (userInput == pincode) {
        loggedIn = true;
        Bank_UI();
      } else if (userInput == "Q") {
        print("Exiting...");
        exit(0);
      } else if (userInput != pincode) {
        print("Incorrect pincode. Please try again.");
        attempts++;
      } else {
        print("ERROR: Invalid input. Please try again.");
      }
    }
    print("Too many attempts. Please try again later.");
    exit(0);
```

```
    }
  }
```

2. Photo Output:
   - # 3 Attempts only (photo):



3. ☑ Features:
   1. ☑ Balance Inquiry [completion:: 2025-05-20]
      1. Asking how much balance you have
      2. Code:
         1. # Balance Inquiry (code):

```
switch (userInput) {
      case "B":
        print("Your current balance is: $money");
        break;
      case "T":
        stdout.write("Transfer amount: ");
        String? transferInput = stdin.readLineSync();
        int? transferAmount = int.tryParse(transferInput
?? '');
        if (transferAmount != null) {
          if (transferAmount < money) {
            money -= transferAmount;
            print("Transfer successful. New balance:
$money");
          } else {
            print("Insufficient funds.");
          }
        } else {
          print("Invalid input. Please enter a valid
number.");
        }
        break;
```

      3. Photo:
         1. # Balance Inquiry (photo):

```
$ dart main.dart
******************** Hello, Welcome to Our Bank ********************
Pincode is empty. Create your first pincode:
pincode has been set to: 1
******************** Hello, Welcome to Our Bank ********************
Pincode already exists. false
Please enter your pincode (or 'Q' to exit): 1
******************** Bank GUI ********************
    Please select an option

    B - Balance Inquiry
    W - Withdraw
    T - Transfer
    D - Deposit
    C - Change Pincode
    P - Pay Bills
    L - Logout

(BANK GUI) Please select an option: B
Your current balance is: 0
(BANK GUI) Please select an option:
```

2. ☑ Withdraw Cash [completion:: 2025-05-20]
    1. Cash--
    2. Code:
        1. # Withdraw (code):

```
case "W":
        stdout.write("Withdrawal amount: ");
        String? withdrawInput = stdin.readLineSync();
        int? withdrawalAmount =
int.tryParse(withdrawInput ?? '');
        if (withdrawalAmount != null) {
          if (withdrawalAmount < money) {
            if (withdrawalAmount > 0) {
              money -= withdrawalAmount;
              print("Withdrawal successful. New balance:
$money");
            } else {
              print("ERROR: Withdrawal amount cannot be
negative. or zero.");
            }
          } else {
            print("Insufficient funds.");
          }
        } else {
          print("Invalid input. Please enter a valid
number.");
        }
        break;
```

    3. Photo:
        1. # Withdraw (photo):

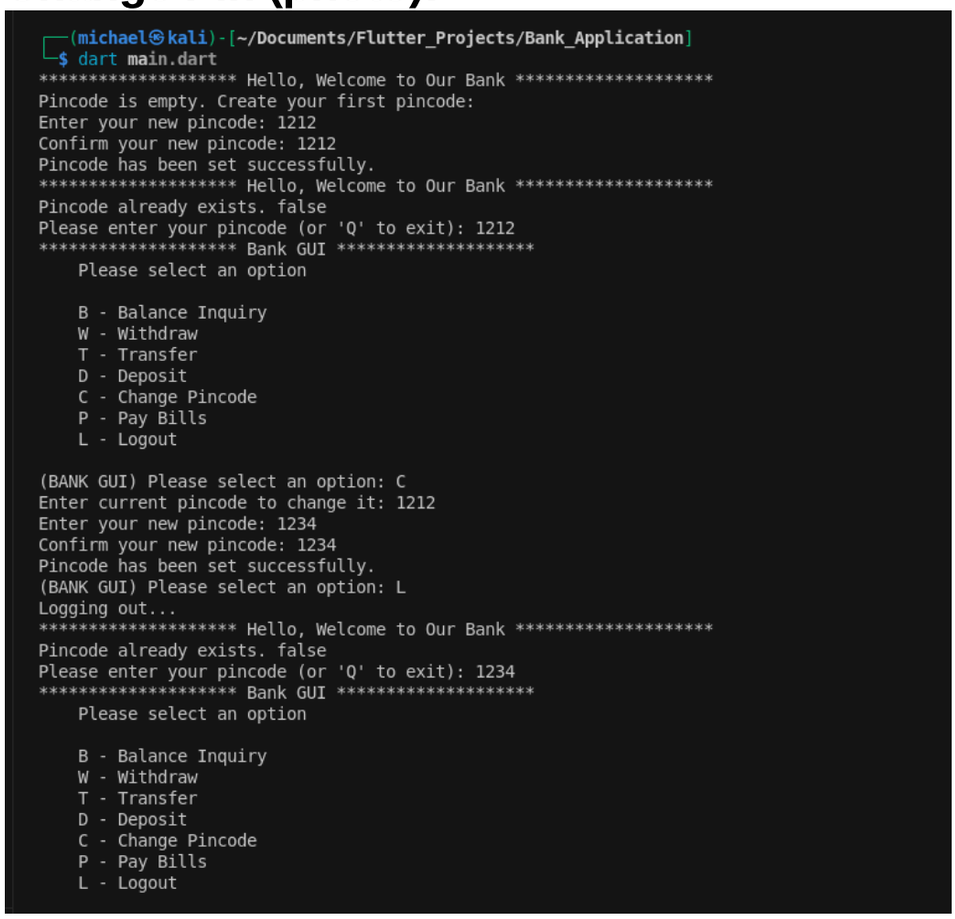
```
********** Bank GUI **********
    Please select an option

    B - Balance Inquiry
    W - Withdraw
    T - Transfer
    D - Deposit
    C - Change Pincode
    P - Pay Bills
    L - Logout

(BANK GUI) Please select an option: B
Your current balance is: 0
(BANK GUI) Please select an option: W
Withdrawal amount: 1000
Insufficient funds.
(BANK GUI) Please select an option: W
Withdrawal amount: 100
Insufficient funds.
(BANK GUI) Please select an option: D
Deposit amount: 10000
Deposit successful. New balance: 10000
(BANK GUI) Please select an option: W
Withdrawal amount: 1000
Withdrawal successful. New balance: 9000
(BANK GUI) Please select an option:
```

3. ☑ Transfer Money [completion:: 2025-05-20]
    1. Transferring the money to another user.
        1. In this instance, transferring money to a fake user = Cash--
4. ☑ Change Pin
    1. Codes:
        1. # Change Pin (code):

```
void setPincode() {
  String? firstEntry;
  String? secondEntry;

  while (true) {
    stdout.write("Enter your new pincode: ");
    firstEntry = stdin.readLineSync();

    if (firstEntry == null || firstEntry.trim().isEmpty)
{
      print("Pincode cannot be empty. Please try
again.");
      continue;
    }

    stdout.write("Confirm your new pincode: ");
    secondEntry = stdin.readLineSync();

    if (firstEntry == secondEntry) {
      pincode = firstEntry;
      print("Pincode has been set successfully.");
      break;
    } else {
      print("Pincode does not match. Please try again.");
    }
  }
}
```

    2. Photo:

1. # Change Pin (photo):



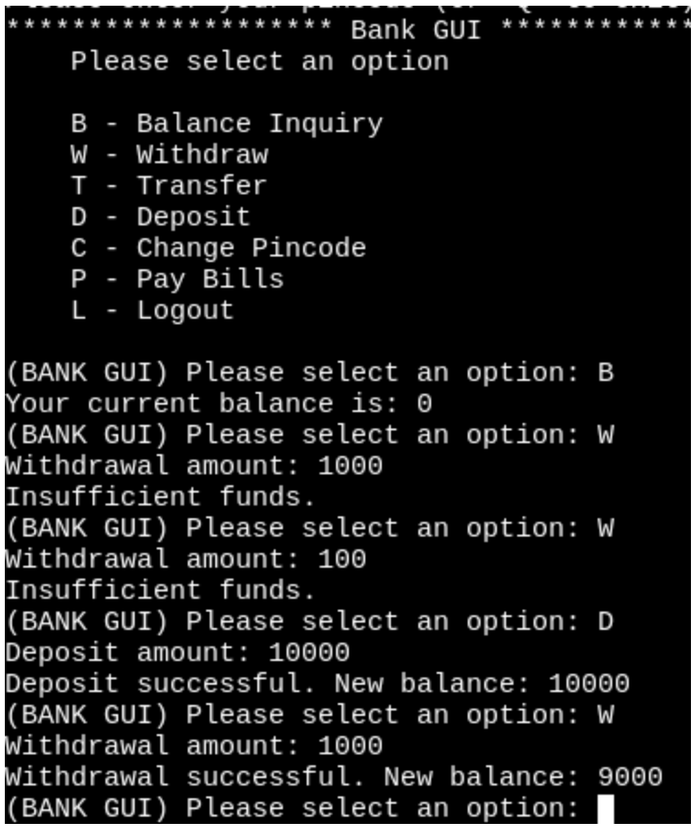
5. ☑ Pay Bills
    1. ☑ Options:
        1. ☑ Pay Electricity Bill = Cash--
        2. ☑ Pay Wifi Bill = Cash--
        3. ☑ Pay Water Bill = Cash--
    2. Code:
        1. # Pay Bills (code/s):

```
void payingBills() {
  print("Which Bills to pay?");
  print("E - Electricity (" + BillsToPay[0][1].toString()
+ " Left)");
  print("W - Water (" + BillsToPay[1][1].toString() + "
Left)");
  print("I - Internet (" + BillsToPay[2][1].toString() +
" Left)");
  stdout.write("(Bills) option (Q to leave): ");
  String? billOption = stdin.readLineSync();
  billOption = billOption?.toUpperCase(); // Convert
input to uppercase

  void payBill(String billType) {
    stdout.write("Pay $billType Amount: ");
    String? billInput = stdin.readLineSync();
    int? paymentInput = int.tryParse(billInput ?? '');

    if (paymentInput != null) {
      int paymentAmount = paymentInput;
      if (paymentAmount <= money) {
        int billNum = 0;
        switch (billType) {
          case "Electricity":
```

```
            billNum = 0;
            break;
          case "Water":
            billNum = 1;
            break;
          case "Internet":
            billNum = 2;
            break;
        }
        if (paymentAmount > BillsToPay[billNum][1]) {
          paymentAmount = BillsToPay[billNum][1];
        }
        money -= paymentAmount;
        BillsToPay[billNum][1] -= paymentAmount;

        print(
          "(Bill) $billType Payment successful. Bill
$billType left (" +
              BillsToPay[billNum][1].toString() +
              "). Money Left $money",
        );
      } else {
        print("ERROR: Insufficient funds.");
      }
    } else {
      print("ERROR: Invalid Input");
    }
  }

  switch (billOption) {
    case "E": // Paying Electiricty Bill
      payBill("Electricity");
      payingBills();
      break;
    case "W": // Paying Water Bill
      payBill("Water");
      payingBills();
      break;
    case "I": // Paying Internet Bill
      payBill("Internet");
      payingBills();
      break;
    case "Q": // Quit Baying Bills GUI Page.
      print("Exiting paying bills...");
      break;
    default:
      print("Invalid option. Please try again.");
      payingBills();
      break;
  }
}
```

3. Photo:

1. # Withdraw (photo):



6. Deposit Money
    1. Cash++
    2. Code:
        1. # Deposit (code):

```
case "D":
        stdout.write("Deposit amount: ");
        String? depositInput = stdin.readLineSync();
        int? depositAmount = int.tryParse(depositInput ??
'');
        if (depositAmount != null) {
          if (depositAmount > 0) {
            money += depositAmount;
            print("Deposit successful. New balance:
$money");
          } else {
            print("ERROR: Withdrawal amount cannot be
negative. or zero.");
          }
        } else {
          print("Invalid input. Please enter a valid
number.");
        }
        break;
```

    3. Photo:
        1. # Deposit (photo):

```
******************** Hello, Welcome to Our Bank ********************
Pincode is empty. Create your first pincode:
pincode has been set to: 1
******************** Hello, Welcome to Our Bank ********************
Pincode already exists. false
Please enter your pincode (or 'Q' to exit): 1
******************** Bank GUI ********************
    Please select an option

    B - Balance Inquiry
    W - Withdraw
    T - Transfer
    D - Deposit
    C - Change Pincode
    P - Pay Bills
    L - Logout

(BANK GUI) Please select an option: D
Deposit amount: 10000000
Deposit successful. New balance: 10000000
(BANK GUI) Please select an option: D
Deposit amount: -1000
ERROR: Withdrawal amount cannot be negative. or zero.
(BANK GUI) Please select an option: D
Deposit amount: 0
ERROR: Withdrawal amount cannot be negative. or zero.
(BANK GUI) Please select an option:
```

4. ☑ Log Out Feature.
    1. Logs the user out and asks for pin code again.
    2. Code:
        1. # Log Out (code):

```
while (userInput != "L") {
    stdout.write("(BANK GUI) Please select an option: ");
    userInput = stdin.readLineSync(); // Read user input
    userInput = userInput?.toUpperCase(); // Convert input to
uppercase

    switch (userInput) {
        case "L":
            print("Logging out...");
            loggedIn = false;
            break;
    }
}
```

    3. Photo:
        1. # Log Out (photo):

```
Please enter your pincode (or 'Q' to exit): 1
******************** Bank GUI ********************
    Please select an option

    B - Balance Inquiry
    W - Withdraw
    T - Transfer
    D - Deposit
    C - Change Pincode
    P - Pay Bills
    L - Logout

(BANK GUI) Please select an option: D
Deposit amount: 10000000
Deposit successful. New balance: 10000000
(BANK GUI) Please select an option: D
Deposit amount: -1000
ERROR: Withdrawal amount cannot be negative. or zero.
(BANK GUI) Please select an option: D
Deposit amount: 0
ERROR: Withdrawal amount cannot be negative. or zero.
(BANK GUI) Please select an option: L
Logging out...
******************** Hello, Welcome to Our Bank ********************
Pincode already exists. false
Please enter your pincode (or 'Q' to exit):
```

5. Quit App
    1. User can quit the app by pressing “Q”
    2. Code:
        1. # Quit App (code):

```
while (attempts < 3 && !loggedIn) {
      stdout.write("Please enter your pincode (or 'Q' to
exit): ");
      String? userInput = stdin.readLineSync(); // Read user
input
      userInput = userInput?.toUpperCase(); // Convert input
to uppercase
      if (userInput == pincode) {
        loggedIn = true;
        Bank_UI();
      } else if (userInput == "Q") {
        // >>>>>> This quits the app.
        print("Exiting...");
        exit(0);
      } else if (userInput != pincode) {
        print("Incorrect pincode. Please try again.");
        attempts++;
      } else {
        print("ERROR: Invalid input. Please try again.");
      }
    }
    print("Too many attempts. Please try again later.");
    exit(0);
  }
```

    3. Photo:
        1. # Quit App (photo):

```
(BANK GUI) Please select an option: D
Deposit amount: 10000000
Deposit successful. New balance: 10000000
(BANK GUI) Please select an option: D
Deposit amount: -1000
ERROR: Withdrawal amount cannot be negative. or zero.
(BANK GUI) Please select an option: D
Deposit amount: 0
ERROR: Withdrawal amount cannot be negative. or zero.
(BANK GUI) Please select an option: L
Logging out...
******************** Hello, Welcome to Our Bank ********************
Pincode already exists. false
Please enter your pincode (or 'Q' to exit): Q
Exiting...
$
```

- [x] ~~Requirements for Submission:~~
  - [x] ~~Dart Codes~~
  - [x] ~~Video Demo presentation~~
  - [x] ~~Presentation screenshot of codes and result.~~

Assignee:

1. Chesca Solomon
   1. [x] Pincode Feature (first time user opens main.dart)
   2. [x] Exit the program if 3 times failed upon entering the PIN is entered incorrectly three times.
2. Jacob Delos Santos
   1. [x] Balance Inquiry
   2. [x] Withdraw Cash
   3. [x] Deposit Money
   4. [x] Quit App
   5. [x] Pay Bills
3. Paolo San Gabriel
   1. [x] Change Pin Function
4. Preys Dasun
   1. [x] Transfer Money
   2. [x] Log Out Feature
5. Rj Castellano
   1. [x] Video Demo

List of Codes + Photos:

Main Menu (code):

```dart
void main() {
  print("******************** Hello, Welcome to Our Bank
********************");

  if (pincode == "" && loggedIn == false) {
    print("Pincode is empty. Create your first pincode:");

    setPincode();

    if (!pincode.isEmpty) {
      main(); // go back to main menu and go to the 3 attempts phase.
    }
```

```
    } else {
      int attempts = 0; // 3 strikes.

      print("Pincode already exists. $loggedIn");

      while (attempts < 3 && !loggedIn) {
        stdout.write("Please enter your pincode (or 'Q' to exit): ");
        String? userInput = stdin.readLineSync(); // Read user input
        userInput = userInput?.toUpperCase(); // Convert input to uppercase
        if (userInput == pincode) {
          loggedIn = true;
          Bank_UI();
        } else if (userInput == "Q") {
          print("Exiting...");
          exit(0);
        } else if (userInput != pincode) {
          print("Incorrect pincode. Please try again.");
          attempts++;
        } else {
          print("ERROR: Invalid input. Please try again.");
        }
      }
      print("Too many attempts. Please try again later.");
      exit(0);
    }
  }
```

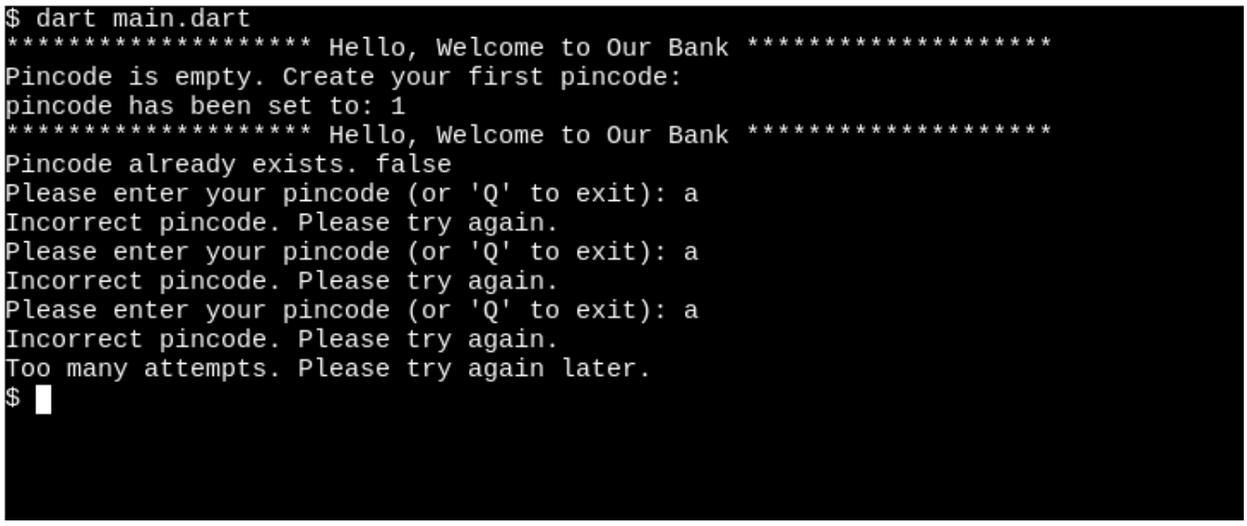
Main Menu (photo):

3 Attempts only (code):

```
  if (pincode == "" && loggedIn == false) {
      print("Pincode is empty. Create your first pincode:");

      setPincode();

      if (!pincode.isEmpty) {
        main(); // go back to main menu and go to the 3 attempts phase.
      }
    } else {
      int attempts = 0; // This counter is used to count logins. 3 times only.

      print("Pincode already exists. $loggedIn");

      while (attempts < 3 && !loggedIn) {
        stdout.write("Please enter your pincode (or 'Q' to exit): ");
        String? userInput = stdin.readLineSync(); // Read user input
        userInput = userInput?.toUpperCase(); // Convert input to uppercase
```

```
      if (userInput == pincode) {
        loggedIn = true;
        Bank_UI();
      } else if (userInput == "Q") {
        print("Exiting...");
        exit(0);
      } else if (userInput != pincode) {
        print("Incorrect pincode. Please try again.");
        attempts++;
      } else {
        print("ERROR: Invalid input. Please try again.");
      }
    }
    print("Too many attempts. Please try again later.");
    exit(0);
  }
}
```

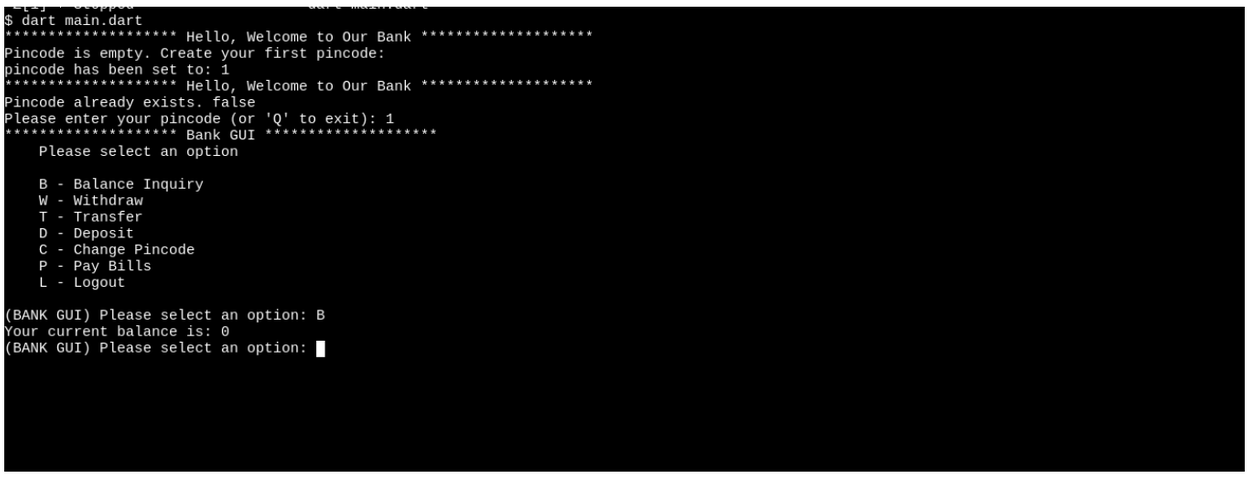
3 Attempts only (photo):



Balance Inquiry (code):

```
switch (userInput) {
      case "B":
        print("Your current balance is: $money");
        break;
      case "T":
        stdout.write("Transfer amount: ");
        String? transferInput = stdin.readLineSync();
        int? transferAmount = int.tryParse(transferInput ?? '');
        if (transferAmount != null) {
          if (transferAmount < money) {
            money -= transferAmount;
            print("Transfer successful. New balance: $money");
          } else {
            print("Insufficient funds.");
          }
        } else {
          print("Invalid input. Please enter a valid number.");
        }
        break;
```

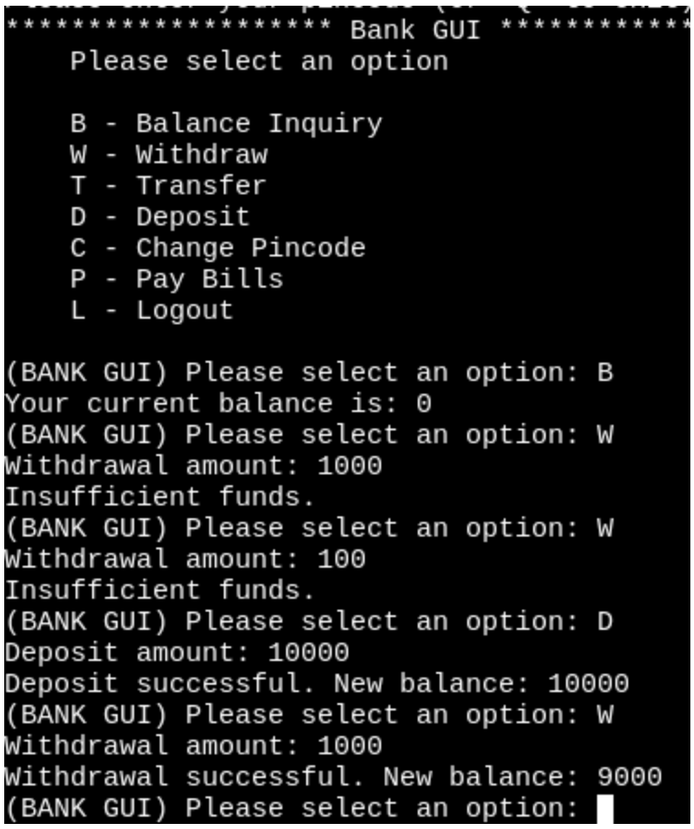
Balance Inquiry (photo):



Withdraw (code):

```
case "W":
        stdout.write("Withdrawal amount: ");
        String? withdrawInput = stdin.readLineSync();
        int? withdrawalAmount = int.tryParse(withdrawInput ?? '');
        if (withdrawalAmount != null) {
          if (withdrawalAmount < money) {
            if (withdrawalAmount > 0) {
              money -= withdrawalAmount;
              print("Withdrawal successful. New balance: $money");
            } else {
              print("ERROR: Withdrawal amount cannot be negative. or
zero.");
            }
          } else {
            print("Insufficient funds.");
          }
        } else {
          print("Invalid input. Please enter a valid number.");
        }
        break;
```

Withdraw (photo):



Pay Bills (code/s):

```
void payingBills() {
  print("Which Bills to pay?");
  print("E - Electricity (" + BillsToPay[0][1].toString() + " Left)");
  print("W - Water (" + BillsToPay[1][1].toString() + " Left)");
  print("I - Internet (" + BillsToPay[2][1].toString() + " Left)");
  stdout.write("(Bills) option (Q to leave): ");
  String? billOption = stdin.readLineSync();
  billOption = billOption?.toUpperCase(); // Convert input to uppercase

  void payBill(String billType) {
    stdout.write("Pay $billType Amount: ");
    String? billInput = stdin.readLineSync();
    int? paymentInput = int.tryParse(billInput ?? '');

    if (paymentInput != null) {
      int paymentAmount = paymentInput;
      if (paymentAmount <= money) {
        int billNum = 0;
        switch (billType) {
          case "Electricity":
            billNum = 0;
            break;
          case "Water":
            billNum = 1;
            break;
          case "Internet":
            billNum = 2;
            break;
        }
        if (paymentAmount > BillsToPay[billNum][1]) {
          paymentAmount = BillsToPay[billNum][1];
        }
        money -= paymentAmount;
        BillsToPay[billNum][1] -= paymentAmount;
```

```
        print(
          "(Bill) $billType Payment successful. Bill $billType left (" +
              BillsToPay[billNum][1].toString() +
              "). Money Left $money",
        );
      } else {
        print("ERROR: Insufficient funds.");
      }
    } else {
      print("ERROR: Invalid Input");
    }
  }

  switch (billOption) {
    case "E": // Paying Electiricty Bill
      payBill("Electricity");
      payingBills();
      break;
    case "W": // Paying Water Bill
      payBill("Water");
      payingBills();
      break;
    case "I": // Paying Internet Bill
      payBill("Internet");
      payingBills();
      break;
    case "Q": // Quit Baying Bills GUI Page.
      print("Exiting paying bills...");
      break;
    default:
      print("Invalid option. Please try again.");
      payingBills();
      break;
  }
}
```

Pay Bills (photo):

```
$ dart main.dart
******************** Hello, Welcome to Our Bank ********************
Pincode is empty. Create your first pincode:
pincode has been set to: 1
******************** Hello, Welcome to Our Bank ********************
Pincode already exists. false
Please enter your pincode (or 'Q' to exit): 1
******************** Bank GUI ********************
    Please select an option

    B - Balance Inquiry
    W - Withdraw
    T - Transfer
    D - Deposit
    C - Change Pincode
    P - Pay Bills
    L - Logout

(BANK GUI) Please select an option: D
Deposit amount: 100000
Deposit successful. New balance: 100000
(BANK GUI) Please select an option: P
Which Bills to pay?
E - Electricity (100 Left)
W - Water (50 Left)
I - Internet (75 Left)
(Bills) option (Q to leave): E
Pay Electricity Amount: 100
(Bill) Electricity Payment successful. Bill Electricity left (0). Money Left 99900
Which Bills to pay?
E - Electricity (0 Left)
W - Water (50 Left)
I - Internet (75 Left)
(Bills) option (Q to leave): W
Pay Water Amount: 100
(Bill) Water Payment successful. Bill Water left (0). Money Left 99850
Which Bills to pay?
E - Electricity (0 Left)
W - Water (0 Left)
I - Internet (75 Left)
(Bills) option (Q to leave): I
Pay Internet Amount: 1000
(Bill) Internet Payment successful. Bill Internet left (0). Money Left 99775
Which Bills to pay?
E - Electricity (0 Left)
W - Water (0 Left)
I - Internet (0 Left)
(Bills) option (Q to leave): O
Invalid option. Please try again.
Which Bills to pay?
E - Electricity (0 Left)
W - Water (0 Left)
I - Internet (0 Left)
(Bills) option (Q to leave):
```

Deposit (code):

```dart
case "D":
        stdout.write("Deposit amount: ");
        String? depositInput = stdin.readLineSync();
        int? depositAmount = int.tryParse(depositInput ?? '');
        if (depositAmount != null) {
          if (depositAmount > 0) {
            money += depositAmount;
            print("Deposit successful. New balance: $money");
          } else {
            print("ERROR: Withdrawal amount cannot be negative. or zero.");
          }
        } else {
          print("Invalid input. Please enter a valid number.");
        }
        break;
```

Deposit (photo):

```
******************** Hello, Welcome to Our Bank ********************
Pincode is empty. Create your first pincode:
pincode has been set to: 1
******************** Hello, Welcome to Our Bank ********************
Pincode already exists. false
Please enter your pincode (or 'Q' to exit): 1
******************** Bank GUI ********************
    Please select an option

    B - Balance Inquiry
    W - Withdraw
    T - Transfer
    D - Deposit
    C - Change Pincode
    P - Pay Bills
    L - Logout

(BANK GUI) Please select an option: D
Deposit amount: 10000000
Deposit successful. New balance: 10000000
(BANK GUI) Please select an option: D
Deposit amount: -1000
ERROR: Withdrawal amount cannot be negative. or zero.
(BANK GUI) Please select an option: D
Deposit amount: 0
ERROR: Withdrawal amount cannot be negative. or zero.
(BANK GUI) Please select an option:
```

Log Out (code):

```
while (userInput != "L") {
    stdout.write("(BANK GUI) Please select an option: ");
    userInput = stdin.readLineSync(); // Read user input
    userInput = userInput?.toUpperCase(); // Convert input to uppercase

    switch (userInput) {
        case "L":
            print("Logging out...");
            loggedIn = false;
            break;
    }
}
```

Log Out (photo):

```
Please enter your pincode (or 'Q' to exit): 1
******************** Bank GUI ********************
    Please select an option

    B - Balance Inquiry
    W - Withdraw
    T - Transfer
    D - Deposit
    C - Change Pincode
    P - Pay Bills
    L - Logout

(BANK GUI) Please select an option: D
Deposit amount: 10000000
Deposit successful. New balance: 10000000
(BANK GUI) Please select an option: D
Deposit amount: -1000
ERROR: Withdrawal amount cannot be negative. or zero.
(BANK GUI) Please select an option: D
Deposit amount: 0
ERROR: Withdrawal amount cannot be negative. or zero.
(BANK GUI) Please select an option: L
Logging out...
******************** Hello, Welcome to Our Bank ********************
Pincode already exists. false
Please enter your pincode (or 'Q' to exit):
```

Quit App (code):

```
while (attempts < 3 && !loggedIn) {
      stdout.write("Please enter your pincode (or 'Q' to exit): ");
      String? userInput = stdin.readLineSync(); // Read user input
      userInput = userInput?.toUpperCase(); // Convert input to uppercase
      if (userInput == pincode) {
        loggedIn = true;
        Bank_UI();
      } else if (userInput == "Q") {
        // >>>>>> This quits the app.
        print("Exiting...");
        exit(0);
      } else if (userInput != pincode) {
        print("Incorrect pincode. Please try again.");
        attempts++;
      } else {
        print("ERROR: Invalid input. Please try again.");
      }
    }
    print("Too many attempts. Please try again later.");
    exit(0);
  }
```

Quit App (photo):

```
(BANK GUI) Please select an option: D
Deposit amount: 10000000
Deposit successful. New balance: 10000000
(BANK GUI) Please select an option: D
Deposit amount: -1000
ERROR: Withdrawal amount cannot be negative. or zero.
(BANK GUI) Please select an option: D
Deposit amount: 0
ERROR: Withdrawal amount cannot be negative. or zero.
(BANK GUI) Please select an option: L
Logging out...
******************** Hello, Welcome to Our Bank ********************
Pincode already exists. false
Please enter your pincode (or 'Q' to exit): Q
Exiting...
$
```

Change Pin (code):

```
void setPincode() {
  String? firstEntry;
  String? secondEntry;

  while (true) {
    stdout.write("Enter your new pincode: ");
    firstEntry = stdin.readLineSync();

    if (firstEntry == null || firstEntry.trim().isEmpty) {
      print("Pincode cannot be empty. Please try again.");
      continue;
    }

    stdout.write("Confirm your new pincode: ");
    secondEntry = stdin.readLineSync();

    if (firstEntry == secondEntry) {
      pincode = firstEntry;
      print("Pincode has been set successfully.");
      break;
    } else {
      print("Pincode does not match. Please try again.");
    }
  }
}
```

Change Pin (photo):

```
┌──(michael㉿kali)-[~/Documents/Flutter_Projects/Bank_Application]
└─$ dart main.dart
******************** Hello, Welcome to Our Bank ********************
Pincode is empty. Create your first pincode:
Enter your new pincode: 1212
Confirm your new pincode: 1212
Pincode has been set successfully.
******************** Hello, Welcome to Our Bank ********************
Pincode already exists. false
Please enter your pincode (or 'Q' to exit): 1212
******************** Bank GUI ********************
    Please select an option

    B - Balance Inquiry
    W - Withdraw
    T - Transfer
    D - Deposit
    C - Change Pincode
    P - Pay Bills
    L - Logout

(BANK GUI) Please select an option: C
Enter current pincode to change it: 1212
Enter your new pincode: 1234
Confirm your new pincode: 1234
Pincode has been set successfully.
(BANK GUI) Please select an option: L
Logging out...
******************** Hello, Welcome to Our Bank ********************
Pincode already exists. false
Please enter your pincode (or 'Q' to exit): 1234
******************** Bank GUI ********************
    Please select an option

    B - Balance Inquiry
    W - Withdraw
    T - Transfer
    D - Deposit
    C - Change Pincode
    P - Pay Bills
    L - Logout
```