CIBIL SCORE SYSTEM

RESEARCH :

A CIBIL system to keep tracks of people's credit scores and dues of a particular person. The system is similar to the real CIBIL system with an enhancement (Here the defaulter can view his status and can apply for improvement by good behaviour). This software system provides an option of admin login, CIBIL associates login and individual login. Here, CIBIL associates are banks or companies who want to report faulty members. They may send faulty member data and this is passed on to the CIBIL admin. The CIBIL admin can view the data and approve after inspection. The system provides an option of member login for which a member first needs to register. He can then check if he is listed in the black list and for what. The blacklisted member may then apply for the removal along with the receipt of fine paid or other documents of proved good behavior. Thus, the CIBIL system is a fully functional user- friendly project .

CIBIL score analysis and prediction is the act of trying to determine whether the customer is eligible for taking loan or not. CIBIL score is the important part of economy of the country and plays a vital role in the growth of the industry and commerce of the country that eventually affects the economy of the country. Both investors and industry are involved in the stock market and want to know whether some stock will rise or fall over a certain period of time. The stock market is the primary source for any company to raise funds for business expansions. It is based on the concept of demand and supply. If the demand for a company's stock is higher, then the company share price increases and if the demand for company's stock is low then the company share price decreases .

What is CIBIL SCORE ?
A CIBIL score is a three-digit numeric summary of a consumer's credit history and creditworthiness in India (typically 300–900). Lenders use it to evaluate the risk of lending. The score is computed using multiple factors such as payment history, credit utilization, credit age, credit mix, and recent credit inquiries.

Common components used (illustrative, not exhaustive):

- **Payment history** (timely repayments vs. defaults/delays)
- **Credit utilization** (ratio of used credit vs. available credit)
- **Length of credit history** (age of oldest and average account)
- **Credit mix** (secured vs unsecured loans, credit card, etc.)
- **Inquiries / new credit** (recent loan/credit applications)

Each component is typically assigned a weight; the weighted sum gives a final score which is mapped into the 300–900 range.

SOURCES :

- https://www.researchgate.net/publication/356493603_Analysis_and_Prediction_of_CIBIL_Score_using_Machine_Learning
- https://www.scribd.com/document/508450015/CSS-Synopsis

ANALYZE :

1. To implement a C program on CIBIL SCORE SYSTEM .
2. To check whether CIBIL SCORE is good or not .
3. To warn if CIBIL SCORE is low .
4. To demonstrate use of multiple inputs and conditions in C program .

The program uses the following steps :

1. Define CIBIL SCORE (eg: minimum = 300 , maximum = 900)
2. To calculate the CIBIL SCORE , take the following inputs :
    - Payment History
    - Credit Utilisation
    - Number of existing loans
    - Monthly Income

3. Compare calculated CIBIL SCORE to the ideal CIBIL SCORE range using if else conditions .
4. Display the results as follows :
    - **“Excellent”** if score is >= 750
    - **“Good”** if score is >= 650
    - **“Fair”** if score is >= 550
    - **“Poor”** if score is >= 350

ALGORITHM :

Step 1 :
Start

Step 2 :
Declare the variables :

- Payment History (float)
- Credit Utilisation (float)
- Income (float)
- Loans (integer)
- Score (integer)

Step 3:

Input the following details from the user :

- Payment history (in %)

- Credit utilization (in %)

- Number of existing loans

- Monthly income

Step 4 :

Evaluate payment history :

- If payment history > 90, add 300 to score
- Else if payment history > 75, add 200 to score
- Else, add 100 to score

Step 5 :

Evaluate credit utilisation :

- If credit utilisation > 75, subtract 100 from score
- Else if credit utilisation > 50, subtract 50 from score

Step 6 :

Evaluate number of loans :

- If loans > 5, subtract 100 from score
- Else if loans >= 3, subtract 50 from score

Step 7 :

Evaluate income :

- If income > 50000, add 100 to score
- Else if income > 30000, add 50 to score

Step 8 :

Ensure the final score is within range

- If score > 900, set score = 900
- If score < 300, set score = 300

Step 9 :

Display the calculated CIBIL SCORE

Step 10 :

Display the credit based on following ranges :

- 750 - 900 = Excellent
- 650 - 749 = Good
- 550 - 649 = Fair
- Below 550 = Poor

Step 11 :

Stop .

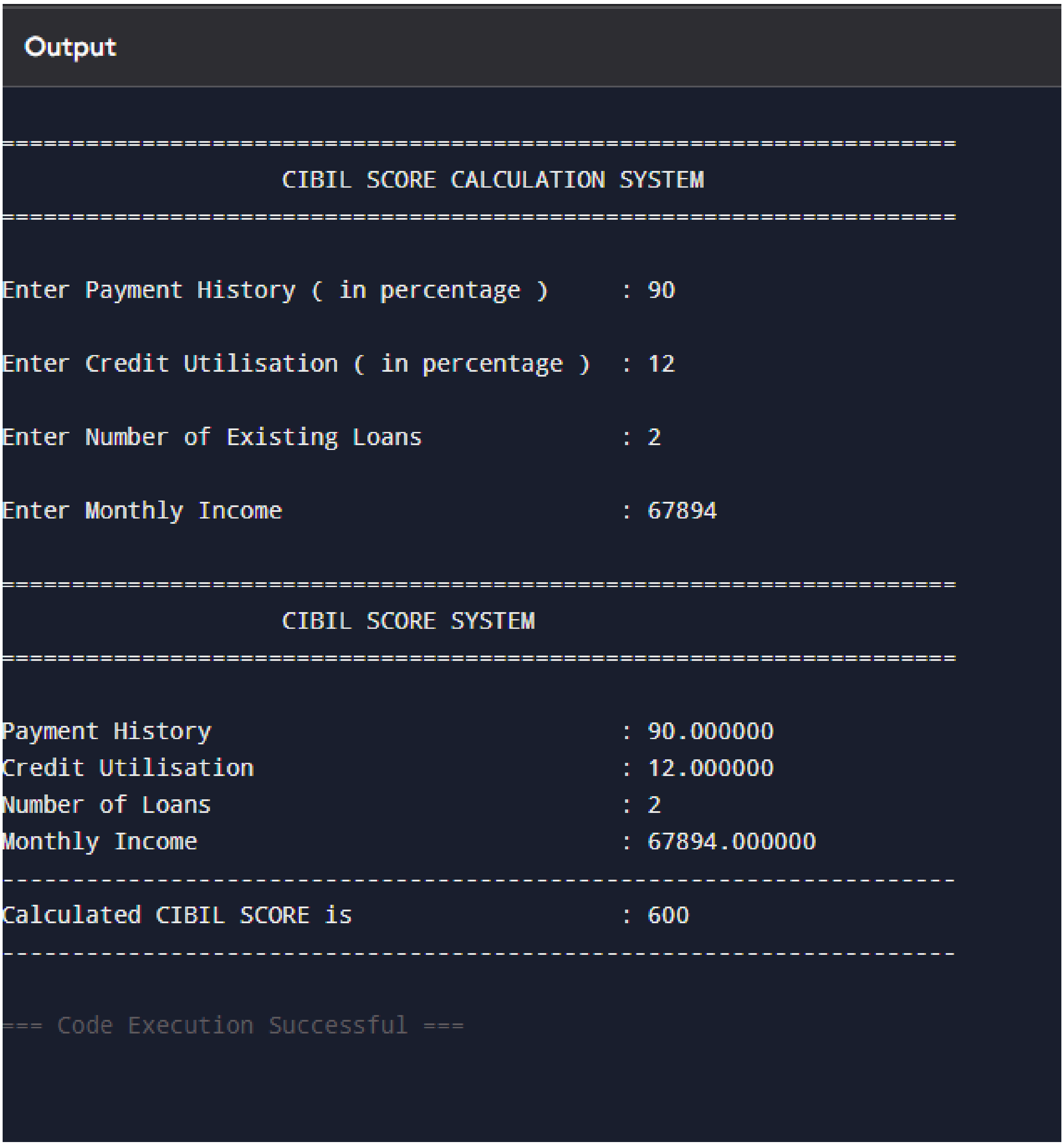
BUILD :

```
#include <stdio.h>

int main() {
   int paymenthistory, creditutilisation, income, loans;

   int score = 300;

printf("\n==================================================
==================");
```

```
   printf("\n                    CIBIL SCORE CALCULATION SYSTEM
");

printf("\n===================================================
==================");

   printf("\n\nEnter Payment History ( in percentage )     : ");
   scanf("%d",&paymenthistory);

   printf("\nEnter Credit Utilisation ( in percentage )  : ");
   scanf("%d",&creditutilisation);

   printf("\nEnter Number of Existing Loans              : ");
   scanf("%d",&loans);

   printf("\nEnter Monthly Income                        : ");
   scanf("%d",&income);

   //Payment history
   if (paymenthistory > 90)
      score += 300;
   else if (paymenthistory > 75)
      score += 200;
   else
      score += 100;

   //Credit Utilisation
   if (creditutilisation > 75)
      score -= 100;
   else if (creditutilisation > 50)
```

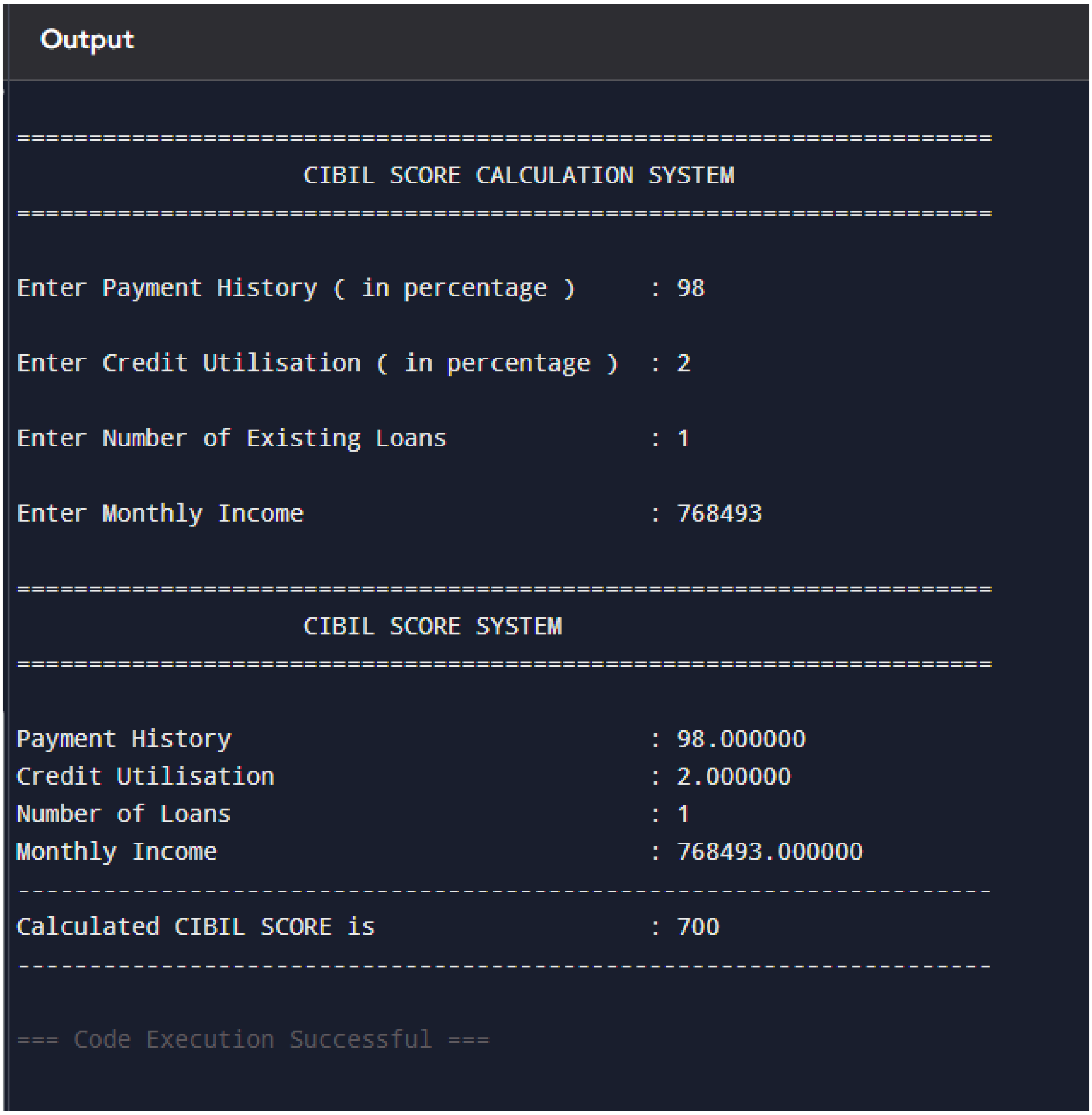
```
        score -= 50;
    else if (creditutilisation > 25)
        score -= 25;
    else
        score += 100;

    //Existing Loans
    if (loans > 5)
        score -= 100;
    else if (loans >= 3)
        score -= 50;
    else if (loans >= 1)
        score -= 25;
    else
        score += 100;

    //Monthly Income
    if (income > 50000)
        score += 100;
    else if (income > 30000)
        score += 50;

    //Limit the credit score between 300 to 900
    if (score > 900) score = 900;
    if (score < 300) score = 300;

printf("\n==========================================================
=====================");
   printf("\n                       CIBIL SCORE SYSTEM                    ");
printf("\n================================================
=================");
   printf("\n\nPayment History                          : %d",paymenthistory);
   printf("\nCredit Utilisation                       : %d",creditutilisation);
   printf("\nNumber of Loans                          : %d",loans);
   printf("\nMonthly Income                           : %d",income);
   printf("\n-----------------------------------------------------------");
   printf("\nCalculated CIBIL SCORE is                : %d",score);
   printf("\n-----------------------------------------------------------");



    return 0;
}
```

TESTING :



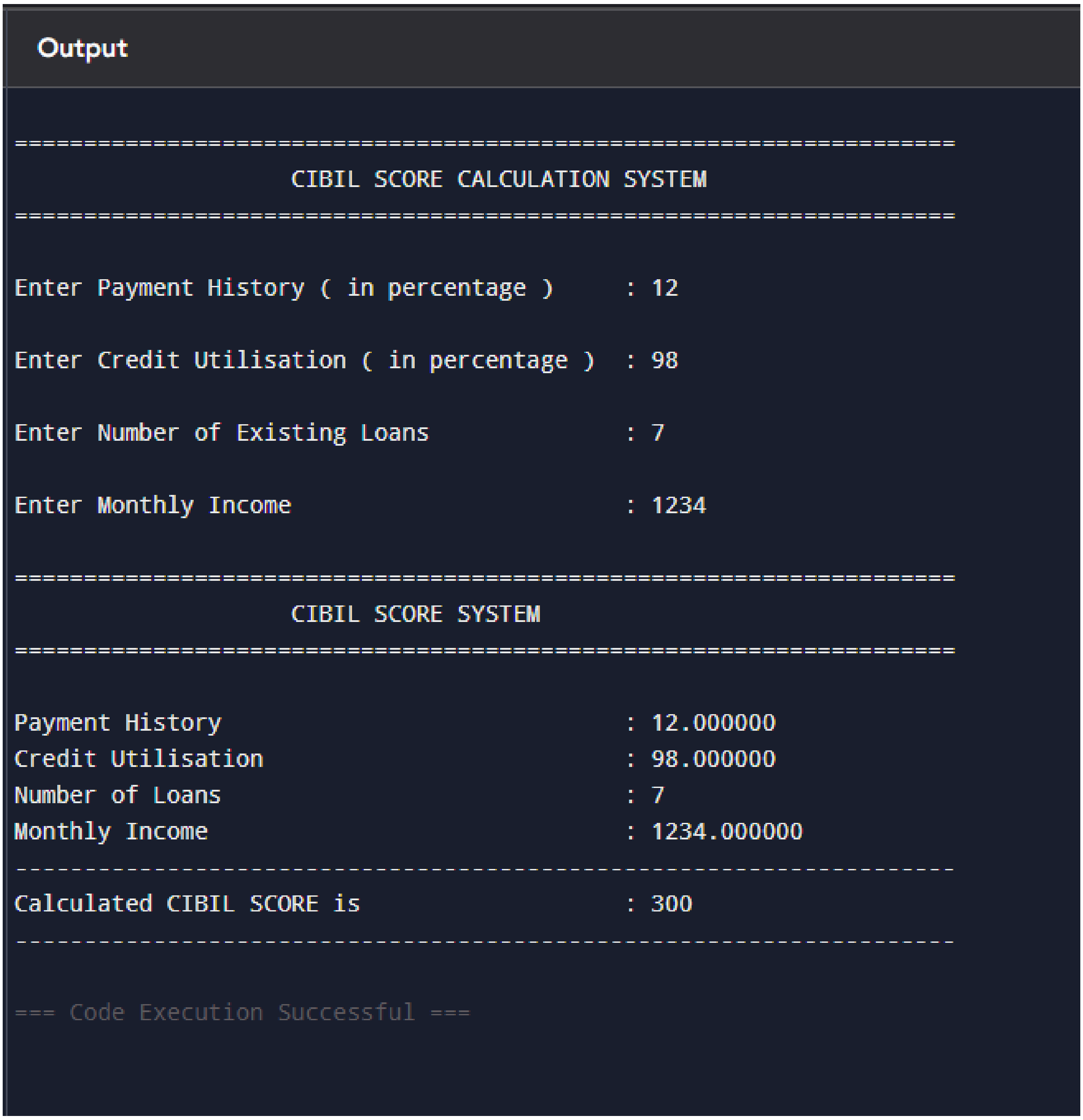
```
==================================================================
                   CIBIL SCORE CALCULATION SYSTEM
==================================================================

Enter Payment History ( in percentage )     : 90

Enter Credit Utilisation ( in percentage )  : 12

Enter Number of Existing Loans              : 2

Enter Monthly Income                        : 67894

==================================================================
                   CIBIL SCORE SYSTEM
==================================================================

Payment History                             : 90.000000
Credit Utilisation                          : 12.000000
Number of Loans                             : 2
Monthly Income                              : 67894.000000
------------------------------------------------------------------
Calculated CIBIL SCORE is                   : 600
------------------------------------------------------------------


=== Code Execution Successful ===
```

1. CIBIL SCORE = 600 for above input values .



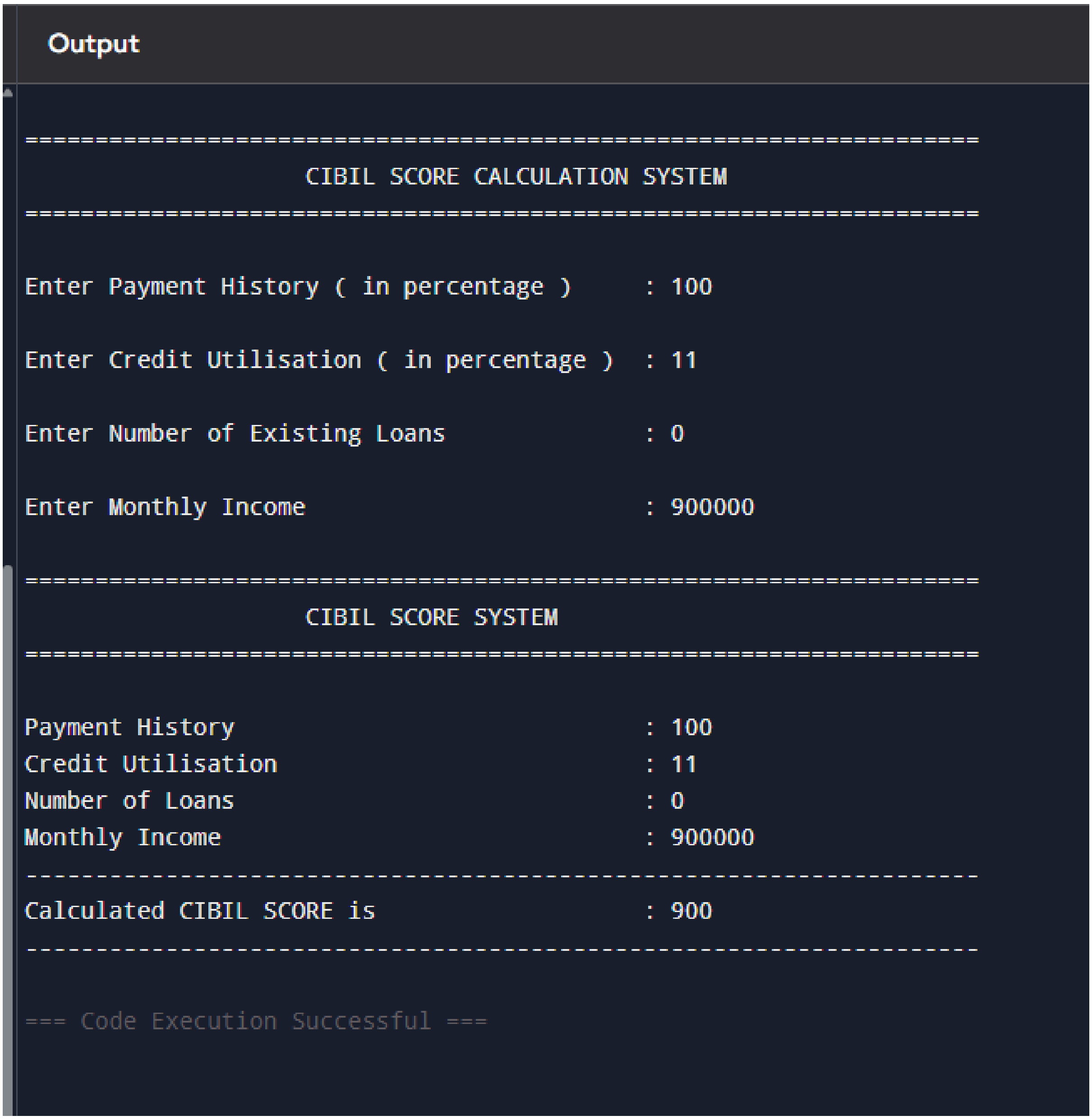
```
====================================================================
                    CIBIL SCORE CALCULATION SYSTEM
====================================================================

Enter Payment History ( in percentage )     : 98

Enter Credit Utilisation ( in percentage )  : 2

Enter Number of Existing Loans              : 1

Enter Monthly Income                        : 768493

====================================================================
                    CIBIL SCORE SYSTEM
====================================================================

Payment History                             : 98.000000
Credit Utilisation                          : 2.000000
Number of Loans                             : 1
Monthly Income                              : 768493.000000
--------------------------------------------------------------------
Calculated CIBIL SCORE is                   : 700
--------------------------------------------------------------------


=== Code Execution Successful ===
```

2. CIBIL SCORE = 700 for above input values .



```
====================================================================
                    CIBIL SCORE CALCULATION SYSTEM
====================================================================

Enter Payment History ( in percentage )     : 12

Enter Credit Utilisation ( in percentage )  : 98

Enter Number of Existing Loans              : 7

Enter Monthly Income                        : 1234

====================================================================
                    CIBIL SCORE SYSTEM
====================================================================

Payment History                             : 12.000000
Credit Utilisation                          : 98.000000
Number of Loans                             : 7
Monthly Income                              : 1234.000000
--------------------------------------------------------------------
Calculated CIBIL SCORE is                   : 300
--------------------------------------------------------------------


=== Code Execution Successful ===
```

3. CIBIL SCORE minimum value = 300 for above input values .



```
====================================================================
                    CIBIL SCORE CALCULATION SYSTEM
====================================================================

Enter Payment History ( in percentage )     : 100

Enter Credit Utilisation ( in percentage )  : 11

Enter Number of Existing Loans              : 0

Enter Monthly Income                        : 900000

====================================================================
                    CIBIL SCORE SYSTEM
====================================================================

Payment History                             : 100
Credit Utilisation                          : 11
Number of Loans                             : 0
Monthly Income                              : 900000
--------------------------------------------------------------------
Calculated CIBIL SCORE is                   : 900
--------------------------------------------------------------------


=== Code Execution Successful ===
```

4. CIBIL SCORE for maximum value = 900 for above (ideal) input values.

IMPLEMENTATION :

https://github.com/vedmuley536/Ved-Muley