# A Micro Project Report

on

# Problem Solving using C Language

Submitted by

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

NARASARAOPETA ENGINEERING COLLEGE: NARASARAOPET

(AUTONOMOUS)

Accredited by NAAC with A+ Grade and NBA under Tier-1

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Accredited by NBA and accredited 'A+' grade by NAAC Narasaraopet-522601, Palnadu(Dt.), Andhra Pradesh, India

2024-2025

NARASARAOPETA ENGINEERING COLLEGE: NARASARAOPET

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING


# CERTIFICATE

This is to certify that CHINTHALA SRAVANA SANDHYA, Roll No: 23471A05FJ, a Second Year

Student of the Department of Computer Science and Engineering, has completed the Micro Project Satisfactorily in "Problem Solving using C Language" for the Academic Year 2024-2025..

Project Co-Ordinator

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| 1. | Banking system -implement account creation ,transaction ,and balance inquiry with file storage |

# BANKING SYSTEM

AIM:

Banking system -implement account creation ,transaction ,and balance inquiry with file storage

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>

#define FILENAME_LEN 50

void create_account();
void deposit();
void withdraw();
void check_balance();
FILE* open_file(char *username, char *mode);

int main()
{
   int choice;
   while (1)
{
       printf("\nBanking System\n");
       printf("1. Create Account\n");
       printf("2. Deposit\n");
       printf("3. Withdraw\n");
       printf("4. Check Balance\n");
```

```
        printf("5. Exit\n");
        printf("Enter your choice: ");
        scanf("%d", &choice);

        switch (choice) {
            case 1: create_account(); break;
            case 2: deposit(); break;
            case 3: withdraw(); break;
            case 4: check_balance(); break;
            case 5: printf("Exiting...\n"); exit(0);
            default: printf("Invalid choice, please try again.\n");
        }
    }
    return 0;
}

void create_account()
{
    char username[FILENAME_LEN];
    printf("Enter username for new account: ");
    scanf("%s", username);

    FILE *file = open_file(username, "w");
    if (file == NULL) {
        printf("Account creation failed!\n");
        return;
    }

    fprintf(file, "0");
    fclose(file);
    printf("Account created successfully for %s.\n",  username);
}
```

```
void deposit()
 {
   char username[FILENAME_LEN];
   int amount, balance;

   printf("Enter username: ");
   scanf("%s", username);

   FILE *file = open_file(username, "r+");
   if (file == NULL)
 {
      printf("Account not found!\n");
      return;
   }

   fscanf(file, "%d", &balance);

   printf("Enter amount to deposit: ");
   scanf("%d", &amount);
   if (amount <= 0) {
      printf("Deposit amount must be positive.\n");
      fclose(file);
      return;
   }

   balance += amount;
   rewind(file);

   fprintf(file, "%d", balance);
   fclose(file);
   printf("Deposited %d successfully. New balance: %d\n",  amount,
balance);
```

```
}

void withdraw()
 {
   char username[FILENAME_LEN];
   int amount, balance;

   printf("Enter username: ");
   scanf("%s", username);

   FILE *file = open_file(username, "r+");
   if (file == NULL)
{
      printf("Account not found!\n");
      return;
   }

   fscanf(file, "%d", &balance);

   printf("Enter amount to withdraw: ");
   scanf("%d", &amount);
   if (amount <= 0)
{
      printf("Withdrawal amount must be positive.\n");
      fclose(file);
      return;
   }

   if (amount > balance)
 {
      printf("Insufficient balance! Current balance: %d\n",  balance);
      fclose(file);
```

```
        return;
    }

    balance -= amount;
    rewind(file);

    fprintf(file, "%d", balance);
    fclose(file);

    printf("Withdrew %d successfully. New balance: %d\n",  amount,
balance);
}

void check_balance()
 {
    char username[FILENAME_LEN];
    int balance;

    printf("Enter username: ");
    scanf("%s", username);

    FILE *file = open_file(username, "r");
    if (file == NULL) {
        printf("Account not found!\n");
        return;
    }

    fscanf(file, "%d", &balance);
    fclose(file);

    printf("Current balance for %s: %d\n", username,  balance);
}
```

```
FILE* open_file(char *username, char *mode)
{
   char filename[FILENAME_LEN];
   snprintf(filename, FILENAME_LEN, "%s.txt", username);
   return fopen(filename, mode);
}
```

OUTPUT:

Banking System
1. Create Account
2. Deposit
3. Withdraw
4. Check Balance
5. Exit
Enter your choice: 1
Enter username for new account: sravani Account created successfully for sravani.

Banking System
1. Create Account
2. Deposit
3. Withdraw
4. Check Balance
5. Exit
Enter your choice: 2
Enter username: sravani
Enter amount to deposit: 3000
Deposited 3000 successfully. New balance: 3000

Banking System
1. Create Account
2. Deposit
3. Withdraw

4. Check Balance
5. Exit
Enter your choice: 4
Enter username: sravani
Current balance for sandeep: 3000

Banking System
1. Create Account
2. Deposit
3. Withdraw
4. Check Balance
5. Exit
Enter your choice: 3
Enter username: sravani
Enter amount to withdraw: 2000
Withdrew 2000 successfully. New balance: 1000

Banking System
1. Create Account
2. Deposit
3. Withdraw
4. Check Balance
5. Exit
Enter your choice: 2
Enter username: sravani
Enter amount to deposit: 20000
Deposited 20000 successfully. New balance: 21000

Banking System
1. Create Account
2. Deposit
3. Withdraw
4. Check Balance 5. Exit
Enter your choice: 5
Exiting...

...Program finished with exit code 0 Press
ENTER to exit console.