IARE
INSTITUTE OF
AERONAUTICAL ENGINEERING
(An Autonomous Institute affiliated to JNTUH, Hyderabad)
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LABORATORY WORK BOOK

Name of the Student: HEMAKAR C

Class: CSE-B Semester: VI

Roll Number										
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Course Code: ACIC09 Course Name: SQAT laboratory

Name of the Course Faculty: Mr. SURESH BABU Faculty ID: IARE10996

Exercise Number: Week Number: 02 Date: 04/04/24

S. No	Exercise Number	EXERCISE NAME	MARKS AWARDED						
			Aim/ Preparation	Algorithm / Procedure / Performance in the Lab		Source Code / Calculations and Graphs	Program Execution / Results and Error Analysis	Viva - Voce	Total
			4	4		4	4	4	20
1	2-1	ATM System	4		4	4	4	4	20
2	2-2	Banking Application							
3	2-3	Students Records into table into EXCEL file							
4	2-4	Calculator							
5									
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12									

Signature of the Student

Signature of the Faculty

2.1 ATM System

Design and develop a program for ATM system by using any suitable Programming language.

```
#include <stdio.h>
unsigned long amount = 1000, deposit, withdraw;
int choice, Pin, k;
char transaction = 'Y';

void main()
{
    while (Pin != 1520)
    {
        Printf("Enter your Pin number: ");
        Scanf("%d", &Pin);
        if (Pin != 1520)
        {
          Printf("Please Enter Valid PIN\n");
        }
    }
    do
    {
      Printf("Welcome to ATM service.");
      Printf("1. Check Balance\n");
      Printf("2. withdraw Cash\n");
      Printf("3. Deposit Cash\n");
      Printf("4. Quit\n");
      Printf("Enter your choice:");
      Scanf("%d", &choice);
```

```
switch (choice)
{
  case 1:
        Printf("\n Your Balance is: %lu", amount);
        break;
case 2:
      Printf("\n Enter Amount to withdraw: ");
      Scanf("%lu", &withdraw);
      if (withdraw % 100 != 0)
      {
Printf("\n Please Enter amount in multiples of
                          100. ");
      }
      else if (withdraw > (amount-500))
      {
          Printf("\n Insufficient Balance.");
      }
      else
      {
        amount = amount - withdraw;
        Printf("\n\n Plese collect cash");
        Printf("\n Your current Balance is
                  %lu", amount);
      }
      break;
case 3:
     Printf("\n Enter amount to deposit");
     scanf("%lu", &deposit);
      amount += deposit;
     Printf("Your Balance is %lu", amount);
     break;
```

2.1 ATM System:

Design and develop a program for ATM system by usi

```
        case 4:
            Printf("\n Thank You");
            break;
        default:
            Printf("\n Invalid choice");
    }
    Printf("\n\n\n Do You wish to have
     another Transaction ? (Y/n): \n");
     fflush(stdin);
     scanf("%c", & transaction);
     if (transaction == 'n' || transaction == 'N')
         K = 1;
  }
  while (!K);
  Printf("\n Thanks for using ATM service");
}
```

Test case 1: cash withdrawl

Enter your pin number: 1520

Welcome to ATM service

1. Check Balance
2. Withdraw cash
3. Deposit cash
4. Quit

Enter your choice: 2

Enter Amount to withdraw: 10000

Insufficient Balance

Test case 2: Cash Deposit

Do u wish to have another Transaction ? (Y/N): Y

1. Check Balance
2. Withdraw cash
3. Deposit cash
4. Quit

Enter your choice: 3

Enter amount to deposit: 1000

Your Balance is: 2000

ROLL NUMBER :

2.2 Banking Application

Design and develop a program for banking application by using suitable program language

```
bal = 0
r = 0
While True:
    Print ("1: create_new_account")
    Print("2: Cash_Deposit")
    Print("3: Cash_withdrawl")
    Print("4: Account_information")
    Print("5: Break")
    P = int(input('Enter your choice: '))
    if P == 1:
        O = int(input('Enter your Pin:'))
        r = O; bal = O
    elif P == 2:
        O = int(input('Enter your pin:'))
        if r == O:
            Print("create a account")
        else:
            if O == r:
                a = int(input('Enter amount to
                        Deposit: '))
                bal += a
            else:
                Print("Wrong PIN")
```

```
elif  p == 3:
    o = int(input('Enter your pin : '))
    if  r == o:
       Print("Create account")
    else:
        if  o == r:
            a = int(input('Enter amount to
                    withdraw: '))
            if  a <= bal:
                bal = bal - a
            else:
               Print("Balance Insufficient")
        else:
           Print('Wrong PIN')
elif  p == 4:
   o = int(input("Enter your pin: "))
   if  r == o:
      Print("Create a account")
   else:
      if  o == r:
         print(" Account Information: ")
         Print("Balance: ", bal);
      else:
         Print("Wrong PIN")
else:
   Print('Exit')
   break
```

Test case 1: Account Balance

1: create_new_account
2: Cash-Deposit
3: Cash_withdrawl
4: Account_Information
5: Break

Enter your choice: 1
Enter your pin: 121203

1: Create_new_account
2: Cash-Deposit
3: Cash_withdrawl
4: Account_Information
5: Break

Enter your choice: 4
Enter your pin: 121203
Account Information:
Balance = 0

Test case 2: Cash withdrawl

1: create_new_account
2: Cash_Deposit
3: Cash_withdrawl
4: Account_Information
5: Break

Enter your choice: 3
Enter your pin: 121203
Enter amount to withdraw: 1000
Balance is Insufficient

ROLL NUMBER :

2.3 Student records into table into Excel file design and develop a program to update 10 student records into table into Excel file by using suitable language.

```
import pandas as pd
l = pd.DataFrame(pd.read_excel("nothing.xlsx"))
d = {'Name': ['Bhavana', 'Jyotsna', 'Ananya',
     'Supriya', 'Haasini', 'Shivani', 'Varshini'],
     'Age': [20, 20, 20, 20, 16, 22, 22]}
d = pd.DataFrame(d)
l = l._append(d, ignore_index = True)
l.to_excel("nothing.xlsx")
print(l)
```

INPUT/OUTPUT:

	Name	Age
0	Himakar	20
1	Bhavana	20
2	Jyotsna	20
3	Ananya	20
4	Supriya	20
5	Haasini	16
6	Shivani	22
7	Varshini	22

ROLL NUMBER :

2-4 Calculator

Design and Develop representing a calculator in any suitable programming language & write down its test cases.

```
#include <stdio.h>
int main()
{
    int a, b, choice;
    printf("Enter two integers: ");
    scanf("%d %d", &a, &b);
    printf("Enter choice: \n 1. Addition \n
       2. Subtraction \n 3. Multiplication \n
        4. Division \n");
    scanf("%d", &choice);
    switch (choice)
    { case 1: printf("Result: %d", a+b);
            break;
      case 2: printf("Result: %d", a-b);
            break;
      case 3: printf("Result: %d", a * b);
            break;
      case 4: if (b !=0)
                printf("Result: %.2f", a/b);
              else
                printf("Error! Division by
                  zero not possible.");
            break;
      default: printf("Invalid choice.");
            break;
    }
}
```

Test case 1: Addition

Enter two integers:

5 4

Enter Choice:

1. Addition

2. Subtraction

3. Multiplication

4. Division

1

Result: 9

Test case 2: Subtraction

Enter two integers:

5 4

Enter Choice:

1. Addition

2. Subtraction

3. Multiplication

4. Division

2

Result: 1