**//Write a program to print the pattern of aster skills:-**

**1:**

#include<stdio.h>

int main(){

int i , j , rows ;

printf("How many rows do you want :- ");

scanf("%d" , &rows);

printf("\n");

for ( i = 1 ; i <= rows ; i++){

for ( j = 1 ; j <= i ; j++){

printf(" \* ");

}

printf("\n");

}

return 0;

}

**2:**

#include<stdio.h>

int main(){

int i , j , rows ;

printf("How many rows do you want :- ");

scanf("%d" , &rows);

printf("\n");

for ( i = rows ; i >= 1 ; i-- ){

for ( j = 1 ; j <= i ; j++){

printf(" \* ");

}

printf("\n");

}

return 0;

}

**//Write a program, to calculate the factorial of a given number:-**

#include <stdio.h>

int main( )

{

int num, fact, i;

fact= 1;

printf("\nEnter any number= ");

scanf("%d",&num);

if(num<0)

{

printf("\n Factorial of negative number does not exist");

exit(0);

}

if(num>12)

{

printf("\n Factorial of large number will not be computed");

exit(0);

}

for (i= 1; i<= num; i++)

{

fact= fact\*i;

}

printf("Factorial of %d = %d\n", num, fact);

return 0;

}

**//Fibonacci series:-**

#include<stdio.h>

int main(){

int a , b , i , num , c ;

printf("\n Enter the number of terms of fibonacci series :- ");

scanf("%d", &num );

a = 0 ; // base i.e. a = 0 of fibonacci series so this is mandatory

b = 1 ; // base i.e. b = 1 of fibonacci series so this is mandatory

printf("\n ");

for ( i = 1 ; i <= num ; i++)

{

printf("%d \t" , a );

c = a + b ;

a = b ;

b = c ;

}

return 0;

}

**//write a program to find the given string is palindrome or not**

#include<stdio.h>

#include<string.h>

void isPal(char s[])

{

int l = 0 ;

int h=strlen(s)-1;

while(h>l)

{

if (s[l++]!=s[h--])

{

printf("%s:not a palindrome\n",s);

return;

}

}

printf("%s:palindrome\n",s);

}

int main()

{

printf("please enter some string to check palindrome or not\n");

char str[150];

//scanf("%s",str);

gets(str);

isPal(str);

return 0;

}

**//function to sawp number usinh call by value**

#include <stdio.h>

void swapByValue(int a, int b) {

int temp = a;

a = b;

b = temp;

printf("After swapping (inside swapByValue): a = %d, b = %d\n", a, b);

}

void swapByReference(int \*a, int \*b) {

int temp = \*a;

\*a = \*b;

\*b = temp;

printf("After swapping (inside swapByReference): a = %d, b = %d\n", \*a, \*b);

}

int main() {

int x, y;

printf("Enter two numbers to swap:\n");

scanf("%d %d", &x, &y);

printf("Before swapping (call-by-value): x = %d, y = %d\n", x, y);

printf("Before swapping (call-by-value): x = %d, y = %d\n", x, y);

swapByValue(x, y);

printf("After swapping (outside swapByValue): x = %d, y = %d\n", x, y);

printf("\nBefore swapping (call-by-reference): x = %d, y = %d\n", x, y);

swapByReference(&x, &y);

printf("After swapping (outside call-by-reference): x = %d, y = %d\n", x, y);

return 0;

}

**//title ,authior ,subject ,Book ID,two student**

#include<stdio.h>

struct book

{

char Title[40];

char Author[40];

char Subject[40];

int Book\_ID;

};

int main()

{

struct book b[2];

int i;

for(i=0;i<2;i++)

{

printf("Enter details of book#%d \n",i+1);

printf("Enter book ID: ");

//scanf("%d", &b[i].Book\_ID);

gets(&b[i].Book\_ID);

printf("Enter book title: ");

gets(&b[i].Title);

printf("Enter book subject:");

gets(&b[i].Subject);

printf("Enter book Author:");

gets(&b[i].Author);

}

for(i=0;i<2;i++)

{

printf("\n Book %d.....\n\n",i+1);

printf("Book ID: %c\n",b[i].Book\_ID);

printf("Book Name: %s\n",b[i].Title);

printf("Book Subject: %s\n",b[i].Subject);

printf("Book Author: %s\n",b[i].Author);

}

return 0;

}

**/Write a program to sort the elements of array in ascending or descending order:-**

#include<stdio.h>

int main()

{

int a[5] ={27,11,8,22,13};

int t=0;

int i,j;

printf("\n Array Elements Before sort\n");

for(i=0;i<5;i++)

printf(" %d",a[i]);

for(i=0;i<5;i++)

{

for(j=i+1;j<5;j++)

{

if(a[i]>a[j])

{

t =a[i];

a[i]=a[j];

a[j] =t;

}

}

}

printf("\n Array Elements After short \n ");

for(i=0;i<=5;i++)

printf(" %d",a[i]);

return 0;

**/\*write a program using while loop to reverse the digits of a number\*/**

#include<stdio.h>

int main()

{

int num, sum , rem;

sum=0;

/\*initialize and read in a value for num\*/

printf("Enter an integer :\n");

scanf("%d",&num);

/\*calculating reverse number\*/

while(num!=0)

{

rem = num % 10;

sum = sum \* 10 + rem;

num /= 10; //num = num/10

}

printf("Reversed Number = %d",sum);

return 0;

}

**DBMS:-**

CREATE DATABASE company;

USE company;

CREATE TABLE employee (

emp\_id INT PRIMARY KEY,

first\_name VARCHAR(50),

last\_name VARCHAR(50),

job\_title VARCHAR(50),

salary DECIMAL(10, 2),

hire\_date DATE

);

SHOW TABLES;

DESC employee;

INSERT INTO employee (emp\_id, first\_name, last\_name, job\_title, salary, hire\_date)

VALUES

(1, 'John', 'Doe', 'Manager', 75000.00, '2022-01-15'),

(2, 'Jane', 'Smith', 'Engineer', 68000.00, '2022-03-20'),

(3, 'Mark', 'Lee', 'Analyst', 54000.00, '2022-05-10'),

(4, 'Sara', 'Khan', 'Designer', 60000.00, '2022-07-01'),

(5, 'David', 'Brown', 'Engineer', 67000.00, '2022-08-15'),

(6, 'Linda', 'Clark', 'HR', 50000.00, '2022-09-10'),

(7, 'James', 'Taylor', 'Manager', 77000.00, '2022-11-25'),

(8, 'Emily', 'White', 'Analyst', 52000.00, '2023-01-05'),

(9, 'Michael', 'Green', 'Engineer', 69000.00, '2023-02-14'),

(10, 'Sophia', 'Hill', 'Support', 48000.00, '2023-03-30'),

(11, 'Daniel', 'Scott', 'Designer', 61000.00, '2023-04-25'),

(12, 'Olivia', 'Wright', 'Support', 47000.00, '2023-05-15'),

(13, 'William', 'Young', 'Engineer', 66000.00, '2023-06-10'),

(14, 'Afiya', 'Shah', 'Interior', 14000.00, '2024-05-15'),

(15, 'Liam', 'Walker', 'Manager', 78000.00, '2024-06-20');

SELECT \* FROM employee;

delete from employee where emp\_id = 2;

**college:**

show databases;

use company;

CREATE TABLE Emp (

EMP\_NO INT PRIMARY KEY,

EMP\_Name VARCHAR(50),

Job VARCHAR(50),

MGR\_Code VARCHAR(10),

Hiredate DATE,

Salary DECIMAL(10,2),

Commission INT,

Dept\_no INT,

Address VARCHAR(100)

);

Show tables;

Desc Emp;

INSERT INTO Emp (EMP\_NO, EMP\_Name, Job, MGR\_Code, Hiredate, Salary, Commission, Dept\_no, Address) VALUES

(120, 'Saba', 'Web developer', 'MG1', '2023-09-07', 40000, 500, 21, 'malad'),

(121, 'Abbas', 'Accountant', 'MG2', '2023-09-08', 50000, 550, 21, 'malad'),

(122, 'Lubna', 'Accountant', 'MG3', '2023-09-09', 60000, 600, 23, 'prabhadevi'),

(123, 'Zaid', 'Accountant', 'MG4', '2023-09-09', 70000, 700, 25, 'colaba'),

(124, 'Aftab', 'PR', 'MG5', '2023-09-10', 100000, 800, 26, 'colaba'),

(125, 'Shifa', 'PR', 'MG6', '2023-09-10', 100000, 1000, 27, 'Mira road'),

(126, 'Sana', 'Accountant', 'MG7', '2023-09-10', 110000, 1000, 27, 'Mira road'),

(127, 'Ali', 'Accountant', 'MG9', '2023-09-11', 110000, 1000, 28, 'Bandra'),

(128, 'Irshan', 'Accountant', 'MG10', '2023-09-11', 110000, 1000, 28, 'Bandra'),

(129, 'Haarsh', 'Manager', 'MG10', '2023-09-11', 120000, 2000, 29, 'Bandra');

Select \* from emp;

select EMP\_NAME, Hiredate, Salary, Dept\_no from Emp;

select EMP\_NO, EMP\_NAME from Emp where Address = 'Mira road';

select Salary from emp where Salary > 60000;

ALTER TABLE Emp DROP COLUMN Commission;

ALTER TABLE Emp ADD COLUMN Email VARCHAR(100);