**C Programs**

1

# include <stdio.h>

int main()

{

int a, b, c, d ;

printf("Enter three numbers : ") ;

scanf("%d %d %d", &a, &b, &c) ;

d = a > b ? (a > c ? a : c) : (b > c ? b : c) ;

printf("\nThe biggest number is : %d", d) ;

return(0);

}

2

#include<stdio.h>

void main()

{

int choice;

int i;

int j=0;

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

{

j=j+i;

}

printf("FOR Loop %d\n",j );

while(i<=5)

{

j=j+i;

i++;

}

printf("While Loop %d\n",j );

do{

j=j+i;

i++;

}while(i<=6);

printf("Do while %d\n",j );

printf("Enter day number from 1-3\n" );

scanf("%d\n",&choice );

switch(choice)

{

case 1:

printf("Monday\n" );

break;

case 2:

printf("Tuesday\n" );

break;

case 3:

printf("Wednesday\n" );

break;

default:

printf("Wrong input\n" );

break;

}

}

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#include<stdio.h>

int main() {

int i, j;

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

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

{ printf("\* "); }

printf("\n");

}

return 0;

}

1

1 2

1 2 3

1 2 3 4

1 2 3 4 5

#include<stdio.h>

int main() {

int i,j,rows;

printf("Enter number of rows: ");

scanf("%d", &rows);

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

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

{ printf("%d ",j); }

printf("\n");

}

return 0;

}

A

B B

C C C

D D D D

E E E E E

#include<stdio.h>

int main() {

int i, j;

char input, alphabet='A';

printf("Enter the uppercase character you want to print in last row: ");

scanf("%c", &input);

for (i=1; i<=(input-'A'+1); ++i) {

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

{ printf("%c", alphabet); }

++alphabet;

printf("\n");

}

return 0;

}

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#include<stdio.h>

int main() {

int i, j, rows;

printf("Enter number of rows: ");

scanf("%d", &rows);

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

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

{ printf("\* "); }

printf("\n");

}

return 0;

}

1 2 3 4 5

1 2 3 4

1 2 3

1 2

1

#include<stdio.h>

int main() {

int i ,j, rows;

printf("Enter number of rows: ");

scanf("%d", &rows);

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

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

{ printf("%d ",j); }

printf("\n");

}

return 0;

}

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#include<stdio.h>

int main() {

int i, space, rows, k=0;

printf("Enter number of rows: ");

scanf("%d", &rows);

for (i=1; i<=rows; ++i,k=0) {

for (space=1; space<=rows-i; ++space)

{ printf(" "); }

while (k!=2\*i-1) {

printf("\* ");

++k;

}

printf("\n");

}

return 0;

}

1

2 3 2

3 4 5 4 3

4 5 6 7 6 5 4

5 6 7 8 9 8 7 6 5

#include<stdio.h>

int main() {

int i, space, rows, k=0, count=0, count1=0;

printf("Enter number of rows: ");

scanf("%d", &rows);

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

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

printf(" ");

++count;

}

while (k!=2\*i-1) {

if (count <= rows-1)

{ printf("%d ", i+k);

++count;

}

else {

++count1;

printf("%d ", (i+k-2\*count1));

}

++k;

}

count1=count=k=0;

printf("\n");

}return 0;

}

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#include<stdio.h>

int main() {

int rows, i, j, space;

printf("Enter number of rows: ");

scanf("%d", &rows);

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

for (space=0; space<rows-i; ++space)

printf(" ");

for (j=i; j<=2\*i-1; ++j)

printf("\* ");

for (j=0; j<i-1; ++j)

printf("\* ");

printf("\n");

}

return 0;

}

1

2 3

4 5 6

7 8 9 10

#include<stdio.h>

int main() {

int rows, i, j, number= 1;

printf("Enter number of rows: ");

scanf("%d", &rows);

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

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

{ printf("%d ", number);

++number;

}

printf("\n");

}

return 0;

}

**\*Use of function**

#include <stdio.h>

void functionName()

{

int a=4;

int b=6;

int c=a+b;

printf("a+b = %d",c);

}

int main()

{

functionName();

}

**\*Implementation of Array**

#include <stdio.h>

int main() {

int values[5];

printf("Enter 5 integers: ");

// taking input and storing it in an array

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

scanf("%d", &values[i]);

}

printf("Displaying integers: ");

// printing elements of an array

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

printf("%d\n", values[i]);

}

return 0;

}

**\*Implementation of pointer**

#include <stdio.h>

int main()

{

int\* pc, c;

c = 22;

printf("Address of c: %p\n", &c);

printf("Value of c: %d\n\n", c); // 22

pc = &c;

printf("Address of pointer pc: %p\n", pc);

printf("Content of pointer pc: %d\n\n", \*pc); // 22

c = 11;

printf("Address of pointer pc: %p\n", pc);

printf("Content of pointer pc: %d\n\n", \*pc); // 11

\*pc = 2;

printf("Address of c: %p\n", &c);

printf("Value of c: %d\n\n", c); // 2

return 0;

}

***\**Implementation of File management**

# include <stdio.h>

# include <string.h>

int main( )

{

FILE \*filePointer ;

char dataToBeWritten[50]

= "Ahmedabad Institute of Technology";

filePointer = fopen("GfgTest.c", "w") ;

if ( filePointer == NULL )

{

printf( "GfgTest.c file failed to open." ) ;

}

else

{

printf("The file is now opened.\n") ;

if ( strlen ( dataToBeWritten ) > 0 )

{

fputs(dataToBeWritten, filePointer) ;

fputs("\n", filePointer) ;

}

fclose(filePointer) ;

printf("Data successfully written in file GfgTest.c\n");

printf("The file is now closed.") ;

}

return 0;

}