Examples of Control Statements

Q)To check whether the given character is upper case or lower case.

ans)

#include <stdio.h>

int main()

{

int ch;

printf("\n enter a character :");

scanf("%c",&ch);

if(ch>=65 && ch<=90)

printf("\n Upper Case");

if(ch>=97 && ch<=122)

printf("\n Lower Case");

if(ch>=48 && ch<=57)

printf("\n It's a Digit");

return 0;

}

Q)Find the larger number from the given two numbers.

ans)

#include <stdio.h>

int main()

{

int a,b;

printf("\n enter :");

scanf("%d,&a");

printf("\n enter :");

scanf("%d,&b");

if(a>b)

{

printf("%d>%d,a,b");

}

else

printf("%d>%d,b,a");

return 0;

Q) Find the largest number for the given three numbers.

ans)

#include <stdio.h>

int main()

{

int a,b,c;

printf("\n enter :");

scanf("%d”,&a);

printf("\n enter :");

scanf("%d”,&b);

printf("\n enter :");

scanf("%d,&c");

if(a>b&&a>c)

{

printf("a is greater");

}

else if(b>a&&b>c)

{

printf("b is greater");

}

else if(c>a&&c>b)

{

printf("c is greater");

}

else

{

printf("All are equal");

}

return 0;

}

Q) To check whether a number is divisible by 5 and 11?

ans)

#include <stdio.h>

int main()

{

int i;

printf("\n enter :");

scanf("%d”,&i);

if(i%5==0&&i%11==0)

{

printf("Number is divisible by both");

}

else if(i%5==0)

{

printf("Divisible by 5");

}

else

{

printf("Divisible by 11");

}

return 0;

}

Q) Check whether the year is leap year or not.

#include <stdio.h>

int main()

{

int year;

printf("\n enter :");

scanf("%d”,&year);

if(year%4==0&&year%100!=0 || year%400==0)

{

printf("\n Year is leap year");

}

else

{

printf("\n Not a leap year");

}

return 0;

}

Q) Calculate the number os digits.

ans)

#include <stdio.h>

int main()

{

int i;

printf("\n enter :");

scanf("%d”,&i);

if(i>=10&&i<=99)

{

printf(" Double Digit Number");

}

if(i>=100&&i<1000)

{

printf(" Tripple Digit NUmber");

}

if(i>=1000&&i<10000)

{

printf("Four Digit Number");

}

return 0;

}

**SWITCH CASE**

This is case conditional control statement.

We choose only one out of different cases.

Syntax-

switch(choice variable)

{

Case1: statements….. break;

Case2: statements …….break;

…….

Casen: statements ….. break;

Default:statements…..

}

Examples-

Q) Addition,subtraction,multiplication,division of numbers.

#include <stdio.h>

int main()

{

int a,b,ch;

printf("\n enter :");

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

printf("\n 1.Addition \n 2.Subtraction \n 3.Multiplication \n 4.Division");

printf("\nenter a choice");

scanf("%d",ch);

switch(ch)

{

case 1:printf("Addition%d",a+b);break;

case 2:printf("Subtraction%d",a-b);break;

case 3:printf("Multiplication%d",a\*b);break;

case 4:printf("Division%d",a/b);break;

default :printf("invalid choice");

}

return 0;

}

Q)To check the given character is vowel or consonant.

#include <stdio.h>

int main()

{

char ch;

printf("\nenter a character");

scanf("%c",&ch);

switch(ch)

{

case 'a':printf("\nvowel");break;

case 'e':printf("\nvowel");break;

case 'i':printf("\nvowel");break;

case 'o':printf("\nvowel");break;

case 'u':printf("\nvowel");break;

default :printf("consonant");

}

return 0;

}

**LOOP CONTROL STATEMENTS**

Repeating the same job again and again.

While and for loop cases are a bit similar and do while varies.

1. while( first checks and then executes only if its true. Prechecking)

Syntax-

Initialization;

while(condition)

{

statements…

increment/decrement;

}

Examples-

Q) How to print 1 to 20 numbers using while loop condtion.

#include <stdio.h>

int main()

{

int a;

a=1;

while(a<=20)

{

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

a++;

}

return(0);

}

Q) To print even numbers.

ans)

#include <stdio.h>

int main()

{

int a;

a=1;

while(a<=20)

{

printf("%d",a);

a++;

}

return(0);

}

Q) To print 5 table.

#include <stdio.h>

int main()

{

int a;

a=2;

while(a<=20)

{

printf("\n%dX5=%d,",a,a\*5);

a=a+2;

}

return(0);

}

Q) To print n table.

#include <stdio.h>

int main()

{

int a,n;

printf("\n Enter the table no");

scanf("%d",&n);

a=1;

while(a<=20)

{

printf("\n%dX%d=%d,",a,n,a\*n);

a=a+1;

}

return(0);

}

Q) To print 1 to n numbers.

ans)

#include <stdio.h>

int main()

{

int a,n;

printf("\n Enter n");

scanf("%d",&n);

a=1;

while(a<=n)

{

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

a=a+1;

}

return(0);

}

Q) To print n to 1 numbers without using any extra variables.

#include <stdio.h>

int main()

{

int a,n;

printf("\n Enter n");

scanf("%d",&n);

while(n<=n && n>=0)

{

printf("\n%d",n);

n--;

}

return(0);

}

Q) To print even numbers.

1. do while(Though the condition is false there is chance to execute at least once in do while loop)

Syntax-

initialization

do

{

statements….

Increment or decrement

}while(condition);

Examples-

Q) Print 1 to 20 numbers using do while

ans)

#include <stdio.h>

int main()

{

int a;

a=1;

do

{

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

a++;

}while(a<=20);

}

1. For (It’s a loop where the increment condition and initialization are done in a single line.)

Syntax-

for(initialization,condition,increment)

{

Statements….

}

Example-

#include <stdio.h>

int main()

{

int a;

a=1;

for(a=1;a<=20;a++)

{

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

}

}

------------------------------------------------------

Logical Questions

Q) If a number 123 is given then print the reverse of the number.

ans)

#include <stdio.h>

int main()

{

int n,r;

printf("\n enter n value");

scanf("%d",&n);

printf("\nReverse number :");

while(n>0)

{

r=n%10;

printf("%d",r);

n=n/10;

}

}

Q) Sum of digits.

ans)123 is given then output is 6.

#include <stdio.h>

int main()

{

int n,r,sum=0;

printf("\n enter n value");

scanf("%d",&n);

while(n>0)

{

r=n%10;

sum=sum+r;

n=n/10;

}

printf("\nSum of digits :%d",sum);

}

Q) To print the count of the given digits.

#include <stdio.h>

int main()

{

int n,r,count;

printf("\n enter n value");

scanf("%d",&n);

while(n>0)

{

r=n%10;

count++;

n=n/10;

}

printf("\n No of digits :%d",count);

}

Q) Print a Palindrome.

ans)

#include <stdio.h>

int main()

{

int n,r,sum=0,temp;

printf("\n enter n value");

scanf("%d",&n);

temp=n;

while(n>0)

{

r=n%10;

sum=(sum\*10)+r;

n=n/10;

}

if(sum==temp)

printf("\n Palindrome);

else

printf("\n Not a Palindrome");

return(0);

}

Q) Amstrong number

Q)Prime Numbers

Q) Perfect Numbers

Q)Strong Numbers

Q)To print factorial of the given number

Q) To print factors of the given number

Q)Fibonacci Series