EXAMPLES OF USAGE OF CONTROL STATEMENTS

Q) To print ascii chart.

#include <stdio.h>

int main()

{

int i;

for(i=0;i<256;i++)

printf("\n%d \t %c",i,i);

return 0;

}

Q) To check if lower case upper case or digit.(ASCII VALUES)

int main()

{

char i;

printf("enter :");

scanf("%c",&i);

if(i=48&&i<58)

{

printf("digit");

}

if(i=65&&i<=90)

{

printf("upper case");

}

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

{

printf("lower case");

}

return 0;

}

Q)find the larger number between two numbers

int main()

{

int i;

int m;

printf("enter :");

scanf("%d",&i);

printf("enter:");

scanf("%d",&m);

if(i>m)

{

printf("%d>%d",i,m);

}

else if(i==m)

{

printf("they are equal");

}

else

{

printf("%d>%d",m,i);

}

return 0;

}

Q)find the larger number between three numbers .

int main()

{

int i;

int m;

int l;

printf("enter :");

scanf("%d",&i);

printf("enter:");

scanf("%d",&m);

printf("enter :");

scanf("%d",&l);

if(i>m&&i>l)

{

printf("i greater");

}

else if(m>l&&m>i)

{

printf("m greater");

}

else if(l>m&&l>i)

{

printf("l greater");

}

else

{

printf("all are equal");

}

return 0;

}

Q)to check if a number is divisible by 5 and 11

int main()

{

int i;

printf("enter :");

scanf("%d",&i);

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

{

printf("divisible by both");

}

else if(i%11==0)

{

printf("divisible by 11");

}

else if(i%5==0)

{

printf("by 5");

}

else

{

printf("not divisible by both");

}

return 0;

}

Q) if a leap year or not (divisible by 4 and 400 but not 11)

#include <stdio.h>

int main()

{

int i;

printf("enter :");

scanf("%d",&i);

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

{

printf("leap year");

}

else

{

printf("not a leap year");

}

return 0;

}

Q) to print no of digits

int main()

{

int i;

printf("enter :");

scanf("%d",&i);

if(i>=0&&i<10)

{

printf("one");

}

else if(i>=10&&i<100)

{

printf("two");

}

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

{

printf("three");

}

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

{

printf("4");

}

return 0;

}

Switch (Case control conditional system)

-->To choose only one out of different cases we use switch

Syntax:-

switch(choice variable)

{

Case 1: statement….. break;

Case 2: statement…... break;

.

.

.

Case n: statement…... break;

Default statements….

}

Q) to print days corresponding to 1-7 numbers

int main()

{

int ch;

printf("enter your choice");

scanf("%d",&ch);

switch(ch)

{

case 1: printf("\nmonday");break;

case 2: printf("\ntuesday");break;

case 3: printf("\nwednesday");break;

case 4: printf("\nthursday");break;

case 5: printf("\nfriday");break;

case 6: printf("\nsaturday");break;

case 7: printf("\nsunday");break;

defaut:printf("invalid choice");

}

return 0;

}

Q) Consonant or vowel

#include <stdio.h>

int main()

{

char ch;

printf("enter your choice:");

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("\n const");

}

return 0;

}

Q) To use ternary operator to check biggest number

#include <stdio.h>

int main()

{

int a,b,c;

printf("enter three numbers:");

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

printf(a==b&&b==c ? "all are equal" : a>b&&a>c ? "a is big" :b>c ? "b is big" : "c is big");

return 0;

}

Loop Control Statements(to repeat the same job multiple times)

1. While----->it is pre checking loop control statement, only if condition is true it will execute

Syntax:-

while(condition)

{

Statements…

Increment or decrement

)

Q) To print 1 to 20 numbers

#include <stdio.h>

int main()

{

int a;

a=1;

while(a<=20)

{

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

a++;

}

return 0;

}

Q) to print even numbers from 1 to 20

#include <stdio.h>

int main()

{

int a;

a=1;

while(a<=20)

{

if(a%2==0)

{

printf("%d,",a);

}

a++;

}

return 0;

Q) To print nth table

int main()

{

int a, n;

printf("enter n");

scanf("%d",&n);

a=1;

while(a<=20)

{

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

a=a+1;

}

return 0;

}

Q) to print 1-n numbers

#include <stdio.h>

int main()

{

int a, n;

printf("enter n");

scanf("%d",&n);

a=1;

while(a<=n)

{

printf("%d,",a);

a=a+1;

}

return 0;

}

Q)to print 20-1 with using only one variable

#include <stdio.h>

int main()

{

int a, n;

printf("enter n");

scanf("%d",&n);

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

{

printf("%d,",n);

n--;

}

return 0;

}

Q) to print even numbers 1-n

int main()

{

int a, n;

printf("enter n");

scanf("%d",&n);

a=2;

while(a<=n)

{

printf("%d,",a);

a=a+2;

}

return 0;

}

Q) To print the reverse of a number (logic:-divide number by 10 print the remainder by3 then remove last and divide by 10 print the remainder do that till the last number)

int main()

{

int r, n;

printf("enter n");

scanf("%d",&n);

while(n>0)

{

r=n%10;

printf("%d",r);

n=n/10;

}

return 0;

}

Q) to add the digits sum

int main()

{

int r, n,sum;

sum=0;

printf("enter n");

scanf("%d",&n);

while(n>0)

{

r=n%10;

sum=sum+r;

n=n/10;

}

printf("%d",sum);

return 0;

}

Q) THE NUMBER OF DIGITS

int main()

{

int r, n,count;

count=0;

printf("enter n");

scanf("%d",&n);

while(n>0)

{

r=n%10;

count++;

n=n/10;

}

printf("%d",count);

return 0;

}

Q) to check if palindrome or not

int main()

{

int r, n,sum,temp;

sum=0;

temp=n;

printf("enter n");

scanf("%d",&n);

while(n>0)

{

r=n%10;

sum=(sum\*10)+r;

n=n/10;

}

if(sum==temp)

{

printf("palindrome");

}

else

{

printf("not a palindrome");

}

return 0;

}

Q) amstrong number

Q)to print prime number

Q)perfect numbers

Q)to print factorial of the given number

Q) to print factors of a given number

\*\*Q) fibonacci series

Q)strong number

1. Do while--->it is a post checking loop control statement which executes the body first and the checks the condition

\*thoug the condition is false there is a chance to execute atleast once in do while.

Syntax:-

Initialization

Do

{

Statements…

increment/decrement;

}while(condition);

Q) 1-20 usng do while

int main()

{

int n;

n=1;

do

{

printf("%d,",n);

n++;

}while(n<=20);

return 0;

}

1. for--->its a loop which contains intialization,condition,and increment in a straight line

Syntax:-

for(initialization;condition;increment/decrement)

{

statements…

}

Q) 1-20 numbers usind for loop