

```
/******
```

Q1 : Write a C program to print all natural numbers from  
1 to n. - using while Loop

OWNER: AKSHAY GANGARAM KADAM

BATCH: PPA9

```
*****/
```

```
#include <stdio.h>
#include<conio.h>
void main()
{
int n,i; //declaration of variable
printf("enter the value of n: \n"); //display instruction to user
scanf("%d",&n);
i=1;
//iteration of operation using loop
while(i<=n)
{
printf("%d\n",i); //print natural number
i++; //increment of i
}
getch();
}
```

```
/******
```

Q2 : Write a C program to print all natural numbers in  
reverse (from n to 1). -Using while loop

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BATCH: PPA9

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*****/
```

```
#include <stdio.h>
#include<conio.h>
void main()
{
int n,i; //declaration of variable

printf("enter the value of n: \n"); //display instruction to user
scanf("%d",&n);
i=1;
//iteration of operation using loop
while(n>=1)
{
printf("%d\n",n);
n--; //decrement of i
}
getch();
}
```

```
/******
```

Q3 : Write a C program to print all alphabets from a to z.

- using while loop

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```
#include <stdio.h>
#include<conio.h>
void main()
{
int i; //declaration of variable
i=97; //assign value
//iteration of operation using loop
while(i<=122)
{
printf("%c\n",i);
i++; //decrement of i
}
getch();
}
```

/\*\*\*\*\*

4. Write a C program to print all even numbers between

1 to 100. - usingWhile loop

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\*\*\*\*\*/

```
#include <stdio.h>
#include<conio.h>
void main()
{
int i; //declaration of variable
i=1; //assign value
//iteration of operation using loop
while(i<=100)
{
if(i%2==0) // cheak the number divisibile by 2
{
printf("%d\n",i); // print even number
}
i++;
} // end of loop
getch();
}
```

/\*\*\*\*\*

Q 5. Write a C program to print all odd number between 1 to 100.

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```

*****/
#include <stdio.h>
#include<conio.h>
void main()
{
int i;
i=1;
//perform iteration by using loop
while(i<=100)
{
if(i%2!=0) // cheak condition
printf("%d\n",i); // printf odd number
i++;
} //end of loop
getch();
}

```

```

/*****
Q6. Write a C program to find sum of all natural numbers
between 1 to n.
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*****/

```

```

#include <stdio.h>
#include<conio.h>
void main()
{
int i,sum=0,n; // decalration of variable

printf("enter value of n \n");
scanf("%d",&n);
// itertaion by using loop
for(i=1;i<=n;i++)
{
sum=sum+i; // add total number by using sum
} //end of loop
printf(" total sum is: %d",sum); // print the total sum
getch();
}

```

```

Q7. Write a C program to find sum of all even numbers
between 1 to n.
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*****/
#include <stdio.h>
#include<conio.h>
void main()
{
int i,sum=0,n; // decalration of variable

```

```

printf("enter value of n \n");
scanf("%d",&n);
// itertaion by using loop
for(i=1;i<=n;i++)
{
if(i%2==0)
sum=sum+i;
// add total number by using sum

} //end of loop
printf(" total sum is: %d",sum); // print the total sum
getch();
}

```

/\*\*\*\*\*

Q8. Write a C program to find sum of all odd numbers  
 between 1 to n.

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\*\*\*\*\*/

```

#include <stdio.h>
#include<conio.h>
void main()
{
int i,sum=0,n; // decalration of variable

printf("enter value of n \n");
scanf("%d",&n);
// itertaion by using loop
for(i=1;i<=n;i++)
{
if(i%2!=0)
sum=sum+i;
// add total number by using sum
} //end of loop
printf(" total sum is: %d",sum); // print the total sum
getch();
}

```

/\*\*\*\*\*

Q 9. Write a C program to print multiplication table of any  
 number.

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\*\*\*\*\*/

```

#include <stdio.h>
#include<conio.h>

```

```

void main()
{
int i, n,d; // decleration of variable
printf("enter any number ");
scanf("%d",&n);
i=1;
//itertaion of the operation
while(i<=10)
{
d=n*i; //multiplication of the digit
printf("%d=%d\n",i,d); // print multiplication
i++;
} // end of loop
getch();
}

```

```

/*****
Q10. Write a C program to count number of digits in a
number.
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*****/

```

```

#include <stdio.h>
#include<conio.h>
void main()
{
int i , n; // decleration of variable

printf("Enter any random number");
scanf("%d",&n);
//iteration by using loop
for(i=0;n>0;i++)
{
n=n/10;
} // end of loop

printf("%d",i); // print total number
getch();
}

```

```

/*****
Q11. Write a C program to find first and last digit of a
number.
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*****/
#include <stdio.h>
#include<conio.h>

```

```

void main()
{
int n,ld,fd; //declaration of the variable
printf("enter the any number");
scanf("%d",&n);
ld=n%10;
// to perform iteration by using loop
while(n>10)
{
n=n/10;
} // end of loop

printf(" firstdigit=%d\n lastdigit=%d",n,ld); //printf last and first digit

getch();
}

```

/\*\*\*\*\*  
 Q 12. Write a C program to find sum of first and last digit  
 of a number.

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```

    *****/
#include <stdio.h>
#include <conio.h>
void main()
{
int n,fd,ld,sum=0; //declaration of the variable
printf("enter the any number");
scanf("%d",&n);
ld=n%10;

// to perform the iteration
while(n>10)
{
n=n/10;
} //end of loop
fd=n;
sum=ld+fd; // add last and first digit
printf("total sum of lastdigit and firstdigit=%d",sum); // print sum

getch();
}

```

/\*\*\*\*\*  
 Q13. Write a C program to swap first and last digits of a  
 number

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\*\*\*\*\*/

```
#include <stdio.h>
#include<conio.h>
void main()
{
int n,fd,ld,temp=0; // declaretion of the variable
printf("enter the any number");
scanf("%d",&n);
ld=n%10;
//to perfrom iteration by using loop
while(n>10)
{
n=n/10;
} //end of loop
fd=n;
//swap two number
temp=ld;
ld=fd;
fd=temp;
printf(" lastdigit and firstdigit swap= %d\n %d\n",ld,fd);// print swap
digit

getch();
}
```

/\*\*\*\*\*

Q14. Write a C program to calculate sum of digits of a number.

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```
#include <stdio.h>
#include<conio.h>
void main()
{ int n,r, sum=0; // declaration of variable
printf("Enter your number");
scanf("%d",&n);
//to perform the interation
while(n!=0)
{
r=n%10;
sum=sum+r;// sum of the digit
n=n/10;
} // end of loop
printf("%d",sum);// total sum
getch();
}
```

```

/*****
Q15. Write a C program to calculate product of digits of a
number.

```

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```

*****/
#include <stdio.h>
#include<conio.h>
void main()
{ int n,r, m=1; // declaration of variable
printf("Enter your number");
scanf("%d",&n);
//to perform the interation
while(n!=0)
{

r=n%10;
m=m*r;// product of the digit
n=n/10;
} // end of loop
printf("%d",m);// total product
getch();
}

```

```

/*****
Q16. Write a C program to enter a number and print its
reverse.

```

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```

*****/
#include <stdio.h>
#include<conio.h>
void main()
{ int n,r, re=0; // declaration of variable
printf("Enter your number");
scanf("%d",&n);// read user number
//to perform the interation
while(n!=0)
{
r=n%10;
re=re*10+r;
n=n/10;
} // end of loop
printf("%d",re);// to print reverse number
getch();
}

```

```

/*****
Q17. Write a C program to check whether a number is
palindrome or not.

```



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```
#include <stdio.h>
#include<conio.h>
void main()
{
int n,re=0,r,temp; // declaration of variable
printf("enter any number \n");
scanf("%d",&n);// read user data

temp=n;
// iteration by using loop
while(n!=0)
{
r=n%10;
re=re*10+r;
n=n/10;
} // end of loop
// chek number is palindrome
if(temp==re)
{
printf("given number is palindrome");
}
else
printf("given number is not palindrome");

getch();
}
```

/\*\*\*\*\*

Q19. Write a C program to enter a number and print it in words.

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```
#include <stdio.h>
#include<conio.h>
void main()
{ int ch,r,re=0,n,temp; // decleration of variable
printf("enter your number ");
scanf("%d",&n);// read user number
while(n!=0)
{
r=n%10;
re=re*10+r;
n=n/10;
} // end of loop
temp=re;
// to perform iterration
```

```

while(temp!=0)
{
switch(temp%10)// use switch to cheak number
{
case 0: printf("zero ");

break;
case 1: printf("one ");
break;
case 2: printf("two ");
break;
case 3: printf("three ");
break;
case 4: printf("four ");// print digit words
break;
case 5: printf("five ");
break;
case 6: printf("six ");
break;
case 7: printf("seven ");
break;
case 8: printf("eight ");
break;
case 9: printf("nine ");
break;
}
temp=temp/10;
} // end of loop
getch();
}

```

/\*\*\*\*\*

Q20. Write a C program to print all ASCII character with their values.

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\*\*\*\*\*/

```

#include <stdio.h>
#include<conio.h>
void main()
{
int ch; // decaleration of the variable
ch=0;
// to itereation by using loop
while(ch<=255)
{
printf("%d= %c\n",ch,ch); // printf ASCII character with their values.
ch++;
} // end of loop
getch();
}

```

```
}
```

```
/*****
```

```
Q21: Write a C program to find power of a number using  
for loop.
```

```
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```

```
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```

```
*****/
```

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
void main()
```

```
{ int n,power=1,e,i; // decleration of the variable
```

```
printf("enter any number or base");
```

```
scanf("%d",&n); // read value
```

```
printf("enter exponent digit");
```

```
scanf("%d",&e); // read value
```

```
// to itertation of the opreation
```

```
for(i=1;i<=e;i++)
```

```
{
```

```
power= power*n;
```

```
}// ne dof loop
```

```
printf("power is = %d",power);// print power of the vvalue
```

```
}
```

```
/*****
```

```
Q22 Write a C program to find all factors of a number.
```

```
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```

```
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```

```
*****/
```

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
void main()
```

```
{
```

```
int i, n; // decleration of variable
```

```
printf("ENTER YOUR NUMBER ");
```

```
scanf("%d",&n);// read user data
```

```
// to perform itertation by using loop
```

```
for(i=1;i<=n;i++)
```

```
{
```

```
if(n%i==0)
```

```
{
```

```
printf("%d ", i ); // printf factors
```

```
}
```

```
}
```

```
getch();
```

```
}
```

```
/*****
```

Q23. Write a C program to calculate factorial of a number

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BATCH: PPA9

```
*****/
#include<stdio.h>
#include<conio.h>
void main()
{
    int n,fact=1,i; // decleration of the variable
    printf("enter any number");
    scanf("%d",&n); // read user number
    // to perform iteration by using loop
    for(i=1;i<=n;i++)
    {
        fact=fact*i; // to store factor multiplecation
    } // end of loop
    printf("the factorial of %d is = %d",n,fact); // print factorial of the
    given number
    getch();
}
/*****
```

Q 24. Write a C program to find HCF (GCD) of two numbers

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```
*****/
#include<stdio.h>
#include<conio.h>
void main()
{
    int n1,n2,min=0,gcd=0,i; // decleration of variable
    printf("enter 1st number");
    scanf("%d",&n1); // user data read
    printf("enter 2nd number");
    scanf("%d",&n2); // user data read

    if(n1<n2) // to cheak number is min in both
    {
        min=n1;
    }
    else
        min=n2;
    // to itertaion by using for loop
    for(i=1;i<=min;i++)
    {
        if(n1%i==0 && n2%i==0) // to cheak number divsisble by same
        number
        {
            gcd=i;
        }
    }
}
```

```

    } // end of loop
    printf("the %d and %d gcd is = %d",n1,n2,gcd); // print gcd of n1
and n2
    getch();
}

```

/\*\*\*\*\*

Q25. Write a C program to find LCM of two numbers.

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BATCH: PPA9

\*\*\*\*\*/

```

#include <stdio.h>

```

```

#include<conio.h>

```

```

void main() {

```

```

    int n1, n2, max,lcm;// decleration of the variable

```

```

    printf("Enter two positive integers: ");

```

```

    scanf("%d %d", &n1, &n2);// read user data

```

```

    if(n1<n2)// to cheak max value in n1 and n2

```

```

    {

```

```

        max=n2;

```

```

    }

```

```

    else

```

```

        max=n1;

```

```

    // using loop infinite time

```

```

    while(1){

```

```

        if(max%n1==0 && max%n2==0)// to cheak number divisibile

```

```

        {

```

```

            lcm=max;

```

```

            printf( " the lcm of %d and %d is = %d",n1,n2,lcm);

```

```

            break; // break loop by if true

```

```

        }

```

```

        max++; // increment max value

```

```

    } // end of loop

```

```

    getch();

```

```

}

```

/\*\*\*\*\*

Q26. Write a C program to check whether a number is

Prime number or not.

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\*\*\*\*\*/

```

#include <stdio.h>

```

```

#include<conio.h>

```

```

void main() {

```

```

    int n,i,p=0;

```

```

    printf("enter any number to cheak prime or not");

```

```

    scanf("%d",&n); // read user data

```

```

    // to itertaion by sing loop

```

```

for(i=2;i<n;i++)
{
if(n%i==0)
{
p++;
break; // break loop
}
} // end loop
if(p==0)// to cheak p incremnt or not
{

printf("number %d is prime",n); // print prime

}
else
printf("number %d is NOT prime",n); // print not prime
getch();
}
/*****
Q27. Write a C program to print all Prime numbers
between 1 to n.
OWNER: AKSHAY GANGARAM KADAM
BATCH: PPA9
*****/
#include <stdio.h>
#include<conio.h>
void main() {
int n,i,p=0,no1;
printf("enter 1 to upto n number");
scanf("%d",&n); // read user data

for(no1=1;no1<=n;no1++)
{
p=0;
// to itertaion by sing loop
for(i=2;i<no1;i++)
{
if(no1%i==0)
{
p++;
break; // break loop
}
} // end loop
if(p==0)// to cheak p incremnt or not
{
printf("%d\n",no1); // print prime
}

}
getch();

```

```
}
/*****
```

28. Write a C program to find sum of all prime numbers  
between 1 to n.

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BATCH: PPA9

```
*****/
```

```
#include <stdio.h>
#include<conio.h>
void main() {
    int n,i,p=0,no1,sum=0;
    printf("enter 1 to upto n number");
    scanf("%d",&n); // read user data

    for(no1=1;no1<=n;no1++)
    {
        p=0;
        // to itertaion by sing loop
        for(i=2;i<no1;i++)
        {
            if(no1%i==0)
            {
                p++;
                break; // break loop
            }
        } // end loop
        if(p==0 && no1!=1)// to cheak p incremnt or not
        {
            sum=sum+no1; // print prime
        }

    }
    printf("the total sumi is = %d",sum);
    getch();
}
```

```
*****/
```

Q29. Write a C program to find all prime factors of a  
number.

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BATCH: PPA9

```
*****/
```

```
#include <stdio.h>
#include<conio.h>
void main()
{
    int n,i,p=0,k; // decleration of variable
    printf("enter any n number");
    scanf("%d",&n); // read user data
    // to iteration by sing loop
    for(i=2;i<=n;i++)
```

```

{
if(n%i==0) // cheak factor
{
p=0;
// 2nd loop to cheak prime or not
for(k=2;k<i;k++)

{
if(i%k==0)
{
p++;
break;
}
} // end of 2nd loop
if(p==0)
{
printf("%d\n",i);
}
}
} // end of 1st loop
getch();
}
/*****
Q30. Write a C program to check whether a number is
Armstrong number or Not.
OWNER: AKSHAY GANGARAM KADAM
BATCH: PPA9
*****/
#include <stdio.h>
#include<conio.h>
void main()
{
int n ,r,tem,ar=0; // declaration of variable
printf("enter any number ");
scanf("%d",&n); // read user data
tem=n; // copy original value in another variable
// to perform iteration
while(n!=0)
{
r=n%10;
ar=ar+r*r*r;
n=n/10;
} // end of loop
if(tem==ar)// cheak number is equal to original
{
printf("number is Armstrong");
}
else
printf(" number is NOT Armstrong");// print number is NOT Armstrong
getch();
}

```



```

}
/*****
Q 32. Write a C program to check whether a number is
Perfect number or Not
OWNER: AKSHAY GANGARAM KADAM
BATCH: PPA9
*****/
#include<stdio.h>
#include<conio.h>
void main()
{
    int i,n,sum=0,temp; // decleration of variable
    printf("enter your number");
    scanf("%d",&n); // read user data
    temp=n; // copy original number in another variable
    for(i=1;i<n;i++)
    {
        if(n%i==0)
        {
            sum=sum+i;
        }
    } // end of loop

    if(temp==sum)
    {
        printf("number is perfect");// number is perfect
    }
    else

    printf("number is not perfect");// print the number is not perfect
    getch();
}
/*****

```

```

Q33. Write a C program to print all Perfect numbers
between 1 to n.
OWNER: AKSHAY GANGARAM KADAM
BATCH: PPA9
*****/
#include<stdio.h>
#include<conio.h>
void main()
{
    int i,n,sum=0,temp,end; // decleration of variable
    printf("enter your number");
    scanf("%d",&end); // read user data
    for(n=1;n<=end;n++)
    {
        sum=0;
        temp=n; // copy original number in another variable
    }
}

```

```

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

if(n%i==0)
{
sum=sum+i;
}
} // end 2nd of loop

if(temp==sum)
{
printf("%d\n",temp);// number is perfect

}

} // end of 1st loop
getch();
}
/*****
Q34. Write a C program to check whether a number is
Strong number or not
OWNER: AKSHAY GANGARAM KADAM
BATCH: PPA9
*****/
#include<stdio.h>
#include<conio.h>
int fact(int);
int main()
{
int n,temp,sum=0,r; // decaleration of variable
printf("enter your number");
scanf("%d",&n); // read data
temp=n; // copy original number to another variable
while(temp!=0)
{
r=temp%10;
int f= fact(r);
temp=temp/10;
sum=sum+ f;
} //end of loop

if(sum==n)
{
printf("number is strong"); // print strong number
}

else
printf("number is NOT strong"); // print strong or not

```

```

    return 0;

}
int fact(int r)
{
    int ml=1,i;
    for(i=1;i<=r;i++)
    {
        ml=ml*i;
    }
    return ml;
}
/*****
Q 35. Write a C program to print all Strong numbers
between 1 to n.
OWNER: AKSHAY GANGARAM KADAM
BATCH: PPA9
*****/
#include<stdio.h>
#include<conio.h>
int fact(int);
int main()
{
    int n,temp,sum=0,r,end; // decaleration of variable
    printf("enter your number");
    scanf("%d",&end); // read data
    // to perform itertaion 1 to end use for loop
    for(n=1;n<=end;n++)

    {

        temp=n;
        sum=0;// copy original number to another variable
        while(temp!=0)
        {
            r=temp%10;
            int f= fact(r);
            temp=temp/10;
            sum=sum+ f;
        } //end of while loop

        if(sum==n)
        {
            printf("%d\n",sum); // print strong number
        }

    } // end of for loop

    return 0;

```

```

}
int fact(int r)
{
    int ml=1,i;
    for(i=1;i<=r;i++)
    {
        ml=ml*i;
    }
    return ml;
}

```

```

/*****
Q36. Write a C program to print Fibonacci series up to n
terms.

```

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BATCH: PPA9

```

*****/

```

```

#include <stdio.h>
#include<conio.h>

```

```

void main()
{
    int a, b, c, i,n;

    // Input number from user
    printf("Enter number of terms ");
    scanf("%d", &n);

    a = 0;
    b = 1;
    c = 0;

    printf("Fibonacci terms: \n");

    // Iteration
    for(i=1; i<=n; i++)
    {
        printf("%d, ", c);

        a = b;    // Copy
        b = c;    // Copy current to back
        c = a + b; // New term
    }

}

```