```
printf("%d", a);
    c = a+b;
    a = b;
    b = a;
    b = c;
}
    return 0;
}
```

```
        if count + + ;
}
    printf ("count = %d", count);
    return 0;
}
```

⇒ check whether a number is an automorphic number

```
#include <stdio.h>
int main () {
int n, sq, temp, pow = 1;
printf ("Enter a number :");
scanf ("%d", &n);
sq = n * n;
temp = n;
while (temp > 0) {
    pow * = 10;
    temp / = 10;
}
if (sq % pow == n) printf ("Automorphic");
else printf ("Not Auto morphic");
return 0;
}
```

⇒ Print fibonacci series upto n terms

```
#include <stdio.h>
int main() {
    int n, i, a = 0, b = 1, c;
    printf ("Enter n;");
    scanf ("%d", &n);
    printf ("fibonacci :");
    for (i = 1; i <= n; i++) {
```

```
printf("Enter a number: ");
scanf("%d", &n);
if (n <= 1) flag = 0;
for (i = 2; i <= n/2; i++) {
    if (n % i == 0) {
        flag = 0;
        break;
    }
}
if (flag) printf("Prime");
else printf("Not prime");
return 0;
}
```

⇒ Print all prime numbers between 1 and 500

```
#include <stdio.h>
int main() {
    int i, j, flag;
    for (i = 2; i <= 500; i++) {
        flag = 1;
        for (j = 2; j <= i/2; j++) {
            if (i % j == 0) {
                flag = 0;
                break;
            }
        }
        if (flag) printf("%d", i);
    }
    return 0;
}
```

⇒ Find summation of prime number between 1 to 500

```
#include <stdio.h>
int main() {
    int i, j, flag, sum=0;
    for(i=2; i<=500; i++){
        flag=1;
        for(j=2; j<=i; j++) {
            if(i%j==0){
                flag=0;
                break;
            }
        }
        if(flag) sum+=i;
    }
    printf("sum=%d", sum);
    return 0;
}
```

⇒ Count how many prime number are there between 1 and 500

```
#include <stdio.h>
int main() {
    int i, j, flag, sum=0;
    for(i=2; i<=500; i++){
        flag=1;
        for(j=2; j<=i/2; j++){
            if(i%j==0){
                flag=0;
                break;
            }
        }
    }
```

```
printf("Enter a number: ");
scanf("%d", &n);
if (n <= 1) flag = 0;
for (i = 2; i <= n/2; i++) {
    if (n % i == 0) {
        flag = 0;
        break;
    }
}
if (flag) printf("Prime");
else printf("Not prime");
return 0;
}
```

⇒ Print all prime numbers between 1 and 500

```
#include <stdio.h>
int main() {
    int i, j, flag;
    for (i = 2; i <= 500; i++) {
        flag = 1;
        for (j = 2; j <= i/2; j++) {
            if (i % j == 0) {
                flag = 0;
                break;
            }
        }
        if (flag) printf("%d", i);
    }
    return 0;
}
```

⇒ Print all factor of a number

```
#include <stdio.h>
int main() {
  int n, i;
  printf("Enter a number: ");
  scanf("factor: ");
  for(i=1; i<=n; i++) {
    if(n % i==0)
      printf("%d", i);
}
  return 0;
}
```

⇒ check whether a number is a perfect number

```
#include <stdio.h>
int main() {
    int n, i, sum=0;
  printf("Enter a number: ");
  Scanf("%d" &n);
  for(i=1: i<n; i++) {
    if(n % i==0)
      sum+=i;
}
if(sum==n) printf("Perfect number");
else printf("Not perfect");
  return 0;
}
```

⇒ check whether a number is prime

```
#include <stdio.h>
int main() {
  int n, i, flag=1;
```

```
int n, rev = 0, r;
printf("Enter a number");
scanf("%d", &n);
while(n>0) {
    r = n % 10;
rev = rev * 10 + r;
  n/=10;
}
printf("Reversed = %d", rev);
return 0;
}
```

⇒ Check wheather a number is palindrome

```
#include <stdio.h>
int main() {
    int n, rev=0, r, temp;
    printf("Enter a number:");
    scanf("%d", &n);
    temp=n;
    while(n>0) {
        r = n % 10;
      rev = rev * 10 + r;
        n/=10;
}
if(temp==rev) printf("PALindrome");
else printf("Not Palindrome");
return 0;
}
```

```
    for (i=1; i<=100; i++) {
        if (i % 5 == 0)
            printf("%d ", i);
    }
    return 0;
}
```

⇒ Print sum of all number from 1 to 100 divisible by 3

```
#include <stdio.h>
int main() {
    int i, sum=0;
    for (i=1; i<=100; i++) {
        if (i % 3 == 0)
            sum += i;
    }
    printf("Sum = %d", sum);
    return 0;
}
```

⇒ Separate digits of a given number

```
#include <stdio.h>
int main() {
    int n, r;
    printf("Enter a number: ");
    scanf("%d", &n);
    while (n > 0) {
        r = n % 10;
        printf("%d", r);
        n /= 10;
    }
    return 0;
}
```

```
int i, n, sum = 0;
printf("Entre n; ");
scanf("%d", &n);
for (i=1; i<=n; i++){
    sum += (2*i);
}
printf("Sum = %d", sum);
return 0;
}
```

⇒ Print your name 5 times

```
#include <stdio.h>
int main() {
    int i;
    for (i=1; i<=5; i++) {
        print ("Your Name\n");
    }
    return 0;
}
```

⇒ Print your name n times

```
#include <stdio.h>
int main () {
    int i, n;
    printf ("Entre n; ");
    scanf ("%d", &n);
    for (i=1 <=n; i++); {
        printf ("Entre Youre name\n");
    }
    return 0;
}
```

⇒ Print sum of number divisible by 13 from 1 to 100

```
#include <stdio.h>
int main (){
   int i, sum=0;
   for (i=1; i<=100; i++) {
      if (i%13==0)
         sum+=i;
   }
      printf ("sum = %d", sum);
      return 0;
}
```

⇒ Calculate sum and mean of 10 value

```
#include <stdio.h>
   int main() {
   int i, num;
   float sum=0, mean;
   for (i=1; i<=100; i++){
         printf("Enter value %d:", i);
         scanf("%d", &num);
         sum += num;
}
mean = sum/10;
print ("sum = %.2f\n mean = %.2f", sum, mean);
return 0;
}
```

⇒ Print number from 1 to 100 divisible by 5

```
#include <stdio.h>
int main(){
   int i;
```

⇒ Count digits in a given number

```
#include<stdio.h>
int main(){
    int n,count=0;
    printf("Enter a number");
    scanf("%d",&n);
    while(n>0){
        count++;
        n/=10;
    }
    printf("Digits = %d",count);
    return 0;
}
```

⇒ Sum of digits of a given number

```
#include<stdio.h>
int main(){
    int n, sum=0,r;
    printf("Enter a number:");
    scanf("%d",&n);
    while(n>0){
        r=n%10;
        sum+=r;
        n/=10;
    }
    Scanf("Sum of digit =%d",sum);
    return 0;
}
```

⇒ Reverse the digit of a number

```
#include<stdio.h>
int main(){
```

```
    int i, n, sum = 0;
    printf("Entre n; ");
    scanf("%d", &n);
    for (i=1; i<=n; i++){
        sum += (2*i);
    }
    printf("Sum = %d", sum);
    return 0;
}
```

⇒ Print your name 5 times

```
#include <stdio.h>
int main() {
    int i;
    for (i=1; i<=5; i++) {
        print ("Your Name\n");
    }
    return 0;
}
```

⇒ Print your name n times

```
#include <stdio.h>
int main () {
    int i, n;
    printf ("Entre n; ");
    scanf("%d", &n);
    for (i=1 i<=n; i++); {
        printf ("Entre Youre name\n");
    }
    return 0;
}
```

```
}return 0;
```

⇒ Print sum of n natural number

```
#include <stdio.h>
int main (){
    int i, n, sum = 0;
    printf ("Entern; ");
    scanf ("%d", &n);
    for (i=1 ; i<=n ; i++); {
        sum += i;
}
printf ("sum = %d", sum);
return 0;
}
```

= Print sum of first n odd number

```
#include <stdio.h>
int main () {
    int i, n, sum=0;
    printf ("Entre n; ");
    scanf ("%d", &n);
    for (i=1; i<=n; i++){
        sum += (2*i-1);
    }
    printf ("Sum = %d", sum);
    return 0;
}
```

⇒ Print sum of the first n even number

```
#include <stdio.h>
int main () {
```

⇒ Print first n natural number

```
#include <stdio.h>
int main() {
    int i, n;
    printf("Enter n: ");
    scanf("%d", &n);
    for(i=1; i<=n; i++) {
        printf("%d", i);
    }
    return 0;
}
```

⇒ Print first n odd number

```
#include <stdio.h>
int main() {
    int i, n;
    printf("Enter n:");
    scanf("%d", &n);
    for(i=1; n; i++) {
        printf("%d", 2*i-1);
    }
    return 0;
}
```

⇒ Print first n even number

```
#include <stdio.h>
int main() {
    int i, n;
    printf("Enter n:");
    scanf("%d", &n);
    for(i=1; i<=n; i++) {
        printf("%d", 2*i);
    }
```

⇒ Print first 10 natural number

```
#include <stdio.h>
int main(){
  int i;
  for(i=1; i<=10; i++){
    printf("%d ", i);
  }
  return 0;
}
```

⇒ Print first 10 odd number

```
#include <studio.h>
int main(){
  int i;
  for(i=1; i<=10; i++){
    printf("%d ", 2*i-1);
  }
  return 0;
}
```

⇒ Print first 10 even number

```
#include <stdio.h>
int main(){
  int i;
  for(i=1; i<=10; i++){
    printf("%d ", 2*i);
  }
  return 0;
}
```

6. Total, average and grade of three subject

```
#include <stdio.h>
int main(){
    int m1, m2, m3;
    float total, avg;
    printf("Enter marks of three subject:");
    scanf("%d %d %d", &m1, &m2, &m3);

    total = m1 + m2 + m3;
    avg = total/3.0;

    printf("Total = %.2f. Average = %.2f\n", total,
avg);

    if(m1<35 || m2<35 || m3<35)
      printf("Result: Fail\n");
    else if(avg>=70)
      printf("Result: First Distinction\n");
    else if(avg>=60)
      printf("Result; First Class\n");
    else if(avg>=50)
      printf("Result: Second Class\n");
    else if(avg>=35)
      printf("Result: third class\n");
    else
      printf("Result: Fail\n");

    return 0;
}
```

4. Check if a number is divisible by 7

```
#include <stdio>
int main () {
   int n;
   printf ("Entre a number: ");
   scanf ("%d", &n);

   if (n % 7 == 0)
      print("%d is divisible by 7\n", n);
   else
      print ("%d is not divisible by 7\n",n);

   return 0;
}
```

5. Calculate net salary with discount

```
#include <stdio>
intmain () {
   float gross, discount, net;
   printf ("Entre Gross Sales: ");
   scanf ("%f", &gross);

   if (gross > 20000)
      discount = 0.15 * gross;
   else if (gross > 10000)
      discount = 0.10 * gross;
   else
      discount = 0.05 * gross;

   net = gross - discount;
   printf ("Net Sales = %.2f\n", net);
   return 0;
```

```
    if (c > largest) largest = c;
    if (b < smallest) smallest = b;
    if (c < smallest) smallest = c;
    printf("largest = %d, smallest = %d\n", largest,
smallest);
    return 0;
}
```

3. Calculate net salary

```
#include <stdio.h>
int main () {
  float gross, allowance, deduction, net;
  printf("Enter Gross salary: ");
  scanf("%f", &gross);

  if (gross > 10000) {
    allowance = 0.10 * gross;
    deduction = 0.03 * gross;
  } else if (gross > 5000) {
    allowance = 0.07 * gross;
    deduction = 0.02 * gross;
  } else {
    allowance = 0;
    deduction = 0;
  }

  net = gross + allowance - deduction;
  printf("Net Salary = %.2f\n", net");
  return 0;
}
```

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25BCL022

C - Programming Assignment

1. Find the largest and Smallest of two value

```
#include <stdio.h>
int main () {
  int a, b;
  printf ("Enter two number: ");
  scanf ("%d %d", &a, &b);

  if (a>b)
    print ("largest = %d, Smallest = %d\n", a,b);
else if (b>a)
    printf("largest = %d, Smallest = %d\n", b,a);
else
    print ("Both are equal: %d\n", a);

  return 0;
}
```

2. Find the largest and smallest of three value

```
#include <stdio.h>
int main () {
  int a,b,c;
  printf ("Enter three numbers: ");

  int largest = a, smallest = a;

  if (b > largest) largest = b;
```