

Type 4 Function

1. Finding F from C (temp).

```
#include<stdio.h>
float findingf(float);
void main()
{
    float c;
    int a;
    printf("\t\tEnter the Celsius: ");
    scanf("%f",&c);
    findingf(c);
    printf("\t\tTemperature in Fahrenheit is : %f\n",c);
}

float findingf(float c )
{
    int f;

    f = ((c*9)/5)+32;
    return f;
}
```

2. Finding area and perimeter of rectangle or circle.

```
#include<stdio.h>
int rectangle(int,int);
int circle(int);
void main()
{
    int a;
    int l;
    int w,r;
    int ansA,ansB;
    printf("Finding area and perimeter : \n 1 Rectangle \n 2 Circle \n choose any one ");
    scanf("%d",&a);
    if(a==1)
    {
        printf("Enter the length of rectangle : ");
        scanf("%d",&l);
        printf("Enter the width of the rectangle: ");
        scanf("%d",&w);
        ansA =rectangle(l,w);
        printf("perimeter of rectangle is: %d\n",ansA);
    }else{
        if(a==2){
            printf("enter the radius of circle : ");
            scanf("%d",&r);
            ansB=circle(r);
            printf("perimeter of circle is: %d\n",ansB);
        }
        else {

```

```

        printf("!!!!invalid option!!!!\n");
    }

}

}
int rectangle(int l, int w)
{
    int area;
    int p;
    area = l * w ;
    printf("Area of rectangle is : %d",area);
    printf("\n");
    p = 2 * (l + w ) ;
    return p;
    printf("\n");
}

int circle(int r )
{
    int area ;
    int perimeter ;
    int pai = 22/7;
    area = pai * (r * r);
    printf("area of circle is : %d",area);
    printf("\n");
    perimeter = 2 * pai * r ;
    return perimeter;
    printf("\n");
}

```

3. Accept a 3 digit number from user and find the sum of the digits and also reverse the number

```

#include<stdio.h>
int reverse(int);
int sumofdigit(int);
int both(int);
void main()
{
    int a;
    int num;
    int r ;
    int sum;
    int nu ;
    int sa;
    int ra;
    int ba;
    printf("Choose any one\n 1 Sum of digit \n 2 Reverse the number \n 3 Both \
ntype here: " );

```

```

scanf("%d",&a);
if(a==1){
    printf("you choose Reverse the number\n");
    printf("enter the number here:");
    scanf("%d",&num);
    sa =sumofdigit(num);
    printf("%d\n ",sa);
}else{
    if(a==2){
        printf("you choose Reverse the number\n");
        printf("Enetr the number is here : ");
        scanf("%d",&nu);
        ra = reverse(nu);
        printf("%d\n ",ra);
    }else{
        if(a==3){
            printf("you choose Both the number\n");
            printf("Enetr the number is here : ");
            scanf("%d",&num);
            ba = both(num);
            printf("%d\n",ba);
        }else{
            printf("invalid input \n");
        }
    }
}
}

```

```

}
int sumofdigit(int num)
{
    int r ;
    int sum;
    for(sum=0;r = num %10; num=num/10)
    {
        sum = sum + r;
    }
    printf("sum of digit is : ");
    return sum;
}

```

```

int reverse(int nu)
{
    int re ;
    int r ;
    for(re=0;r=nu%10;nu = nu/10)
    {
        re = re *10 + r;
    }
}

```

```

    }
    printf("the reverse value is : ");
    return re;
}

int both(int num)
{
    int sum;
    int r;
    int reverse=0;
    int rem;
    for(sum = 0;r = num%10 ; num = num/10)
    {
        sum = sum + r ;
        reverse = reverse * 10 + r;
    }
    printf("sum of digit is : %d \n",sum);
    printf("reverse the number : ");
    return reverse;
    printf("\n");
}

```

4. Check if the given number is even or odd.

```

#include<stdio.h>
int evenodd(int);
void main()
{
    int num ;
    int x;
    printf("enter the number here : ");
    scanf("%d",&num);
    x = evenodd(num);
    printf("%d\n",x);
}

int evenodd(int num)
{
    if(num%2==0){
        printf("its even number : ");
        return num;
    }
    else{
        printf("its odd number ");
        return num;
    }
}

```

5. Calculating total salary based on basic. If basic <=5000 da, ta and hra will be 10%,20% and 25% respectively otherwise da, ta and hra will be 15%,25% and 30% respectively.

```

#include<stdio.h>
int less(int);
int other(int);

```

```

void main()
{
    int salary;
    int da,ta,hra;
    int t;
    printf("Enter the salary : ");
    scanf("%d",&salary);
    if(salary<=5000 )
    {
        t =less(salary);
        printf("so salary is include Hra,Ta and Da : %d\n",t);
    }
    else{
        t = other(salary);
        printf("so salary is include Hra,Ta and Da : %d\n",t);
    }
}

```

```

int less(int salary)
{
    float da,ta,hra;
    int total;
    da = salary * 10/100;
    ta = salary * 15/100;
    hra = salary *25/100;
    printf("you get 10 and 20 and 25 percent on Hra,Ta and Da \n");
    total = salary + da + ta + hra;
    return total;
}

```

```

int other(int salary)
{
    float da,ta,hra;
    int total;
    da = salary * 15/100;
    ta = salary * 25/100;
    hra = salary * 30/100;
    printf("you get 15 and 25 and 30 percent on Hra,Ta and Da \n");
    total = salary + da + ta + hra;
    return total;
}

```

6. Find the price of item when discount is given (specify different discount based on price)

```
#include<stdio.h>
int fivep(int);
int tenp(int);
void main()

{
    int x , price,five,total,tend;
    printf("Get discount on price \n");
    printf("Enter the price : ");
    scanf("%d",&price);
    if(price<500)
    {
        x = fivep(price);
        printf("so price is : %d\n",x);
    }
    else
    {
        x = tenp(price);
        printf("so price is : %d\n",x);
    }
}

int fivep(int price)
{
    int five,total;
    five = price * 0.05;
    total = price - five;
    printf("you get 5 Percent discount ");
    return total;
}

int tenp(int price)
{
    int tend;
    int total;
    tend = price * 0.10;
    total = price - tend;
    printf("you get 10 Percent discount ");
    return total;
}
```

7. Write a program to find greatest of three numbers using nested if-else.

```
#include<stdio.h>
int findbig(int,int,int);
void main()
{
    int m,a,b,c;
```

```

printf("\t\tWelcome Find big number\n");
printf("\tEnter the three number here :\n");
printf("\tEnter the First number A: ");
scanf("%d",&a);
printf("\tEnter the second number B: ");
scanf("%d",&b);
printf("\tEnter the third number C : ");
scanf("%d",&c);
m = findbig(a,b,c);
printf("And number is : %d \n",m);
printf("\t\tThank you \n");
}

```

```

int findbig(int a, int b,int c)
{
    int max;
    if (a>b && a>c){
        printf("\ta is max ");
        return a;
    }else{
        if (b>c && b>a){
            printf("\tb is max ");
            return b;
        }else{
            if (c>b && c>a)
                printf("\tc is max ");
            return c;
        }
    }
}

```

8. Accept two numbers from user and an operator (+,-,/,*,%) based on that perform the desired operations.

```

#include<stdio.h>
int add(int,int);
int sub(int,int);
int mult(int,int);
int divi(int,int);
int Rem(int);
void main()
{
    int a,num1,num2,total ,asum,subb,mu,di,ree;
    printf("\t*****Menu*****\n");
    printf("\n\t 1 Addition \n\t 2 Substraction \n\t 3 Multiplication \n\t 4 Division \n\t 5
remender \n\n Choose any one : ");
    scanf("%d",&a);
    if(a==1){
        printf("\nEnter the two number here :\n");

```

```
printf("Enter the First number: ");
scanf("%d",&num1);
printf("Enter the Second Number : ");
scanf("%d",&num2);
asum = add(num1,num2);
printf("sum is : %d \n",asum);
}else{if(a==2)
{
printf("Enter the two number here :\n");
printf("Enter the First number: ");
scanf("%d",&num1);
printf("Enter the Second Number : ");
scanf("%d",&num2);
subb = sub(num1,num2);
printf("Substraction is: %d \n",subb);
}else{if(a==3)
{
printf("Enter the two number here :\n");
printf("Enter the First number: ");
scanf("%d",&num1);
printf("Enter the Second Number : ");
scanf("%d",&num2);
mu = mult(num1,num2);
printf("Multification is : %d \n",mu);
}else{
if(a==4){
printf("Enter the two number here :\n");
printf("Enter the First number: ");
scanf("%d",&num1);
printf("Enter the Second Number : ");
scanf("%d",&num2);
di=divi(num1,num2);
printf("Division is %d\n",di);
}else{
if(a==5){
printf("Enter the one number here :\n");
printf("Enter the First number: ");
scanf("%d",&num1);
ree= Rem(num1);
printf("Remender is %d\n",ree);
}else
{
printf("invalid\n");
}

}

}

}
```



```

    }
}

int add(int num1, int num2)
{
    int total;
    total = num1 + num2 ;
    return total;
}

int sub(int num1,int num2)
{
    int total;
    total = num1 - num2 ;
    return total;
}

int mult(int num1 ,int num2)
{
    int total;
    total = num1 * num2 ;
    return total;
}

int divi(int num1,int num2 )
{
    int total;

    total = num1 / num2 ;
    return total;
}

int Rem(int num1)
{
    int total;
    total = num1 % 10 ;
    return total;
}

```

9. Display a menu to the user (like 1.Even Odd 2. Basic salary etc), ask the user to enter his choice, then based on that perform the desired operations.

```

#include<stdio.h>
int evenodd(int);
float findingf(float);
int findbig(int,int,int);
int add(int,int);
int sub(int,int);
int mult(int,int);
int divi(int,int);

```

```
int Rem(int);
int less(int);
int other(int);
```

```
void main()
{
```

```
    int a;
    int salary;
    int da,ta,hra;
    int t;
```

```
    printf("\t*****Menu*****:\n");
```

```
    printf("\n\t 1 Even or odd \n\t 2 +-* / \n\t 3 find cel \n\t 4 find big number \n\t 5
```

Basic Salary \n Choose any one : ");

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

```
    if(a==1){
```

```
        int num ;
```

```
        int x;
```

```
        printf("enter the number here : ");
```

```
        scanf("%d",&num);
```

```
        x = evenodd(num);
```

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

```
    }else{
```

```
    if(a==2){
```

```
        int a,num1,num2,total ,asum,subb,mu,di,ree;
```

```
    printf("\t*****Menu*****:\n");
```

```
    printf("\n\t 1 Addition \n\t 2 Substraction \n\t 3 Multiplication \n\t 4 Division \n\t 5
```

remender \n\n Choose any one : ");

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

```
    if(a==1){
```

```
        printf("\nEnter the two number here :\n");
```

```
        printf("Enter the First number: ");
```

```
        scanf("%d",&num1);
```

```
        printf("Enter the Second Number : ");
```

```
        scanf("%d",&num2);
```

```
        asum = add(num1,num2);
```

```
        printf("sum is : %d \n",asum);
```

```
    }else{if(a==2)
```

```
    {
```

```
        printf("Enter the two number here :\n");
```

```
        printf("Enter the First number: ");
```

```
        scanf("%d",&num1);
```

```
        printf("Enter the Second Number : ");
```

```
        scanf("%d",&num2);
```

```
        subb = sub(num1,num2);
```

```
        printf("Substraction is: %d \n",subb);
```

```
    }else{if(a==3)
```

```
    {
```

```
        printf("Enter the two number here :\n");
```

```
        printf("Enter the First number: ");
```

```
        scanf("%d",&num1);
```

```
        printf("Enter the Second Number : ");
```

```
        scanf("%d",&num2);
```

```
mu = mult(num1,num2);
printf("Multification is : %d \n",mu);
}else{
    if(a==4){
        printf("Enter the two number here :\n");
        printf("Enter the First number: ");
        scanf("%d",&num1);
        printf("Enter the Second Number : ");
        scanf("%d",&num2);
        di=divi(num1,num2);
        printf("Division is %d\n",di);
    }else{
        if(a==5){
            printf("Enter the one number here :\n");
            printf("Enter the First number: ");
            scanf("%d",&num1);
            ree= Rem(num1);
            printf("Remender is %d\n",ree);
        }else
        {
            printf("invalid\n");
        }
    }
}

}
```

```

        printf("And number is : %d \n",m);
        printf("\t\tThank you \n");
    }else{
        if(a==5){

            printf("Enter the salary : ");
            scanf("%d",&salary);
            if(salary<=5000 )
            {
                t =less(salary);
                printf("so salary is include Hra,Ta and Da : %d\n",t);
            }
            else{
                t = other(salary);
                printf("so salary is include Hra,Ta and Da : %d\n",t);
            }

        }else{
            printf("invalid \n");
        }
    }
}
}
}
}
}

```

```

int evenodd(int num)
{
    if(num%2==0){
        printf("its even number : ");
        return num;
    }
    else{
        printf("its odd number ");
        return num;
    }
}

```

```

float findingf(float c )
{   int f;

    f = ((c*9)/5)+32;
    return f;

}

```

```

int findbig(int a, int b,int c)
{

```

```

int max;
if (a>b && a>c){
printf("\ta is max ");
return a;
}else{
    if (b>c && b>a){
        printf("\tb is max ");
        return b;
    }else{
        if (c>b && c>a)
        printf("\tc is max ");
        return c;
    }
}

```

```

}
}

```

```

int add(int num1, int num2)
{
    int total;
    total = num1 + num2 ;
    return total;
}

```

```

}

```

```

int sub(int num1,int num2)
{
    int total;
    total = num1 - num2 ;
    return total;
}

```

```

int mult(int num1 ,int num2)
{
    int total;
    total = num1 * num2 ;
    return total;
}

```

```

int divi(int num1,int num2 )
{
    int total;

    total = num1 / num2 ;
    return total;
}

```

```

}

```

```

int Rem(int num1)
{
    int total;
    total = num1 % 10 ;
    return total;
}

```

```

int less(int salary)
{
    float da,ta,hra;
    int total;
    da = salary * 10/100;
    ta = salary * 15/100;
    hra = salary * 25/100;
    printf("you get 10 and 20 and 25 percent on DA,Ta and Hra \n");
    total = salary + da + ta + hra;
    return total;
}

int other(int salary)
{
    float da,ta,hra;
    int total;
    da = salary * 15/100;
    ta = salary * 25/100;
    hra = salary * 30/100;
    printf("you get 15 and 25 and 30 percent on DA,Ta and Hra \n");
    total = salary + da + ta + hra;
    return total;
}

```

10. Accept the price from user. Ask the user if he is a student (user may say yes or no). If he is a student and he has purchased more than 500 then discount is 20% otherwise discount is 10%. But if he is not a student then if he has purchased more than 600 discount is 15% otherwise there is not discount.

```

#include<stdio.h>
int nonstud(int);
int stud(int);
void main()
{
    int y;
    int v;
    int price;
    printf( "you are student ( yes(1) or no(2) ):" );
    scanf ("%d",&v);
    if(v == 1)
    {
        printf ("you are student so u will get discount \n");
        printf("enter the price here :");
        scanf("%d",&price);
        y =stud(price);
        printf("price is : %d\n",y);
    }else{
        if(v == 2){
            printf ("you are non-student so u will get discount \n");

```

```

        printf("enter the price here :");
        scanf("%d",&price);
        v= nonstud(price);
        printf("price is : %d\n",v);
    }
    else{
        printf("invalid option \n");
    }
}

int stud(int price)
{
    int final,total;
    if(price>500)
    {
        final = price * 0.2;
        total = price -final;
        printf(" you are student and you get 20Percent off bcz price is more
than 500 \n");

        return total;
    }else
    {
        final = price * 0.1;
        total = price -final;
        printf(" you are student and you get 10 Percent off bcz of price is less
than 500 \n");

        return total;
    }
}

int nonstud(int price)
{
    int final,total;

    if(price>600)
    {
        final = price * 0.15;
        total = price -final;
        printf("price is more the 600 so u get 15 Percent discount \n");
        return total;
    }else
    {
        printf("Sorry u are not valid for discount\n");
        return price;
    }
}

```

11. Accept a number with 1 or 2 digit from user and display it in words.

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

```

int displayinword(int,int);
void main()
{
    int a ;
        int num1 ,num2;
        printf("Enter the First number :");
        scanf("%d",&num1);
        printf("Enter the Second number :");
        scanf("%d",&num2);
        printf("In Word : ");
        displayinword(num1,num2);
        printf("\n");
}
int displayinword(int num1,int num2)
{
if (num1<20)
{
if(num1 == 0)
printf("ZERO");
if(num1 == 1)
printf("one");
if(num1 == 2)
printf("two");
if(num1 == 3)
printf("three");
if(num1 == 4)
printf("four");
if(num1 == 5)
printf("five");
if(num1 == 6)printf("six");
if(num1 == 7)
printf("seven");
if(num1 == 8)
printf("eight");
if(num1 == 9)
printf("nine");
if(num1 == 10)
printf("ten");
if(num1 == 11)
printf("Eleven");
if(num1 == 12)
printf("Twelve");
if(num1 == 13)
printf("Thirteen");
if(num1 == 14)
printf("Fourteen");
if(num1 == 15)
printf("Fifteen");
if(num1 == 16)
printf("Sixteen");
if(num1 == 17)
printf("Seventeen");
}
}

```



```
if(num1 == 18)
printf("Eighteen");
if(num1 == 19)
printf("Nineteen");
if(num1 == 20)
printf("Twenty");
}
else
{
printf("not valid ");
}
printf(" ");
if(num2<20)
{
if(num2 == 0)
printf("ZERO");
if(num2 == 1)
printf("one");
if(num2 == 2)
printf("two");
if(num2 == 3)
printf("three");
if(num2 == 4)
printf("four");
if(num2 == 5)
printf("five");
if(num2 == 6)
printf("six");
if(num2 == 7)
printf("seven");
if(num2 == 8)
printf("eight");
if(num2 == 9)
printf("nine");
if(num2 == 10)
printf("Ten");
if(num2 == 11)
printf("Eleven");
if(num2 == 12)
printf("Twelve");
if(num2 == 13)
printf("Thirteen");
if(num2 == 14)
printf("Fourteen");
if(num2 == 15)
printf("Fifteen");
if(num2 == 16)
printf("Sixteen");
if(num2 == 17)
printf("Seventeen");
if(num2 == 18)
printf("Eighteen");
```

```

    if(num2 == 19)
        printf("Nineteen");
    if(num2 == 20)
        printf("Twenty");
    }
    else
    {
        printf("not valid ");
    }
}

```

12 Find the factorial of any number ?

```

#include<stdio.h>
int Factorial(int);
void main()
{
    int a ;
    int num;
    printf("\nEnter the number : ");
    scanf("%d",&num);

    a = Factorial(num);
    printf("%d\n",a);
}

int Factorial(int num)
{
    int f;
    int i=1;
    for(f=1;i<=num;i++)
    {
        f = f*i;
    }
    printf("Factorial is : ");
    return f;
}

```