```c
#include<stdio.h>
int main()
{
    char ch;
    printf("Enter the character:");
    scanf("%c",&ch);
    if(ch>=48 && ch<=57)
    {
        printf("character is %c digit",ch);
    }
    else
    {
        if(ch>=65 && ch<=90)
        {
            printf("character is %c upper case",ch);
        }

        else
        {
            if(ch>=97 && ch<=122)
            {
                printf("character is %c lower case",ch);
            }

        else
        {
            printf("character is %c special character",ch);
        }
    }
}



}

```

```c
#include<stdio.h>
int main()
{
    int a,b,c;
    printf("enter the length of sides a,b,c respectively");
    scanf("%d %d %d" , &a,&b,&c);
    if(a+b>c)
    {
        printf("the triangle is a valid triangle");
    }
    else
    {
        printf("the triangle is not a valid triangle");
    }
    return 0;
}

```

```c
#include<stdio.h>
int main()
{
    int n;
    printf("Enter any number:");
    scanf("%d" ,&n);
    if((n%3==0 && n%2==0))
    {
        printf("the number is divisible by both 3 and 2",&n);
    }
    else
    {
        printf("the number is  not divisible by 3 and 2",&n);
    }
    return 0;
}

```

```c
#include<stdio.h>
int main()
{
    int a,b,c,D;
    float x,y;
    printf("Enter coefficient of x^2,x and constant term");
    scanf("%d %d %d",&a,&b,&c);
    D=b*b-4*a*c;
    if(D<0)
    {
        printf("both roots are imaginary");
    }
    if(D==0)
    {
        printf("both roots are equal");
        x=-b/(2.0*a);
        printf("roots is %f",x);
    }
    if(D>0)
    {
        printf("roots are real and imaginary");
        x=(-b+sqrt(D))/(2*a);
        y=(-b-sqrt(D))/(2*a);
        printf("\nroots are: %f,%f",x,y);

    }
    return 0;
}

```

```c
#include<stdio.h>
int main()
{
    int sp,cp,p,l;
    printf("\n enter the selling price and cost price");
    scanf("%d %d",&sp,&cp);
    if(sp>cp)
    {
        printf("\n profit %d",sp-cp);
    }
    else
    {
        printf("\n loss %d",cp-sp);
    }
    return 0;
}

```

```c
#include<stdio.h>
int main()
{
  int n;
  printf("Enter the number:" ) ;
  scanf("%d",&n);
  if(n>0)
  {
      printf("the number is positive");
  }
  if(n<=0)
  {
      printf("the number is negative");
  }
  return 0;
}

```

```c
#include<stdio.h>
int main()
{
    int n;
    printf("Enter a number:");
    scanf("%d",&n);
    if((n/2)*2 == n)
    {
        printf("%d is even number\n",n);
    }
    else
    {
        printf("%d is odd number\n",n);
    }
    return 0;
}

```

```c
#include<stdio.h>
int main()
{
    int n;
    printf("Enter a number:");
    scanf("%d",&n);
    if((n/2)*2 == n)
    {
        printf("%d is even number\n",n);
    }
    else
    {
        printf("%d is odd number\n",n);
    }
    return 0;
}

```

```c
#include<stdio.h>
int main()
{
    int num;
    printf("Enter the number:");
    scanf("%d",&num);
    if(num%2==0)
    {
        printf("number is %d even",num);
    }
    else
    {
        printf("number is %d odd",num);
    }
    return 0;
}

```

```c
#include<stdio.h>
int main()
{
    int n;
    printf("enter the number:");
    scanf("%d",&n);
    if(n>0)
    {
        printf("the number %d is positive",n);
    }
    if(n<0)
    {
        printf("the number %d is negative",n);
    }
    if(n==0)
    {
        printf("the number %d is zero",n);
    }
    return 0;
}

```

```c
#include<stdio.h>
int main()
{
    int n;
    printf("Enter the number:");
    scanf("%d",&n);
    if(n%7==0 || n%3==0)
    {
        printf("the number is divisible by 7 or 3",&n);
    }
    else
    {
        printf("the number is not divisible by 7 or 3",&n);
    }
    return 0;


}

```

```c
#include<stdio.h>
int main()
{
    int num;
    printf("Enter the number:");
    scanf("%d",&num);
    if(num%5==0)
    {
        printf("the number is %d divisible by 5",num);
    }
    else
    {
        printf("the number is %d not divisible by 5",num);
    }
    return 0;
}

```

```c
#include<stdio.h>
int main()
{
    int n;
    printf("Enter any number:");
    scanf("%d",&n);
    if(n>=100 && n<=999)
    {
        printf("number is  three digit number",n);
    }
    else
    {
        printf("number is not three digit number",n);
    }
    return 0;
}

```

```c
#include<stdio.h>
int main()
{
    int year;
    printf("Enter a year");
    scanf("%d",&year);
    if(year%4)
    {
        printf("Not a leap year");
    }
    else if(year%100)
    {
        printf(" leap year");
    }
    else if(year%400)
    {
        printf("Not a leap year");
    }
    else
    {
        printf("leap year");
    }
    return 0;

}

```

```c
#include<stdio.h>
int main()
{
    int a,b,c;
    printf("Enter any three numbers:");
    scanf("%d %d %d",&a,&b,&c);
    if(a>b)
    {
        if(a>c)
        {
            printf("a is  %d the greatest number",a);
        }
        else
        {
            printf("c is %d the greatest number",c);
        }
    }
    else
    {
        if(b>c)
        {
            printf("b is %d the greatest number",b);
        }
        else
        {
            printf("c is %d the greatest number",c);
        }
    }
    return 0;


}

```

```c
#include<stdio.h>
int main()
{
    int a,b;
    printf("enter two numbers\n:");
    scanf("%d %d",&a,&b);
    if(a>b)
    {
        printf("greatest number is %d",a);
    }
    else
    {
        printf("greatest number is %d",b);
    }
    return 0;
}

```

```c
#include<stdio.h>
int main()
{
    char ch;
    printf("Enter the character:");
    scanf("%c",&ch);
    if(ch>=65 && ch<=90)
    {
        printf("charter is in upper case %c",ch);
    }
    else
    {
        if(ch>=97 && ch<=122)
        {
            printf("charter is in lower case %c",ch);
        }
    }
    return 0;
}

```