TRESHOLD(FOR İLE) KODLARI

```
m1=imread('http://blog.aku.edu.tr/ismailkoyuncu/files/2021/03/test1.jpg');
figure,imshow(m1);
[satir sutun]=size(m1);
for i=1:satir
    for j=1:sutun
        if(m1(i,j)>=128)
            m2(i,j)=255;
        else
            m2(i,j)=0;

        end;

    end;
end;
figure,imshow(m2);
```

Klavyeden girilen eşik değeri ile treshold(FOR İLE)

```
m1=imread('http://blog.aku.edu.tr/ismailkoyuncu/files/2021/03/test1.jpg');
figure,imshow(m1);
[satir sutun]=size(m1);
k=input('Değer giriniz: ');
for i=1:satir
    for j=1:sutun
        if(m1(i,j)>=k)
            m2(i,j)=255;
        else
            m2(i,j)=0;

        end;

    end;
end;
figure,imshow(m2);
```

Negatifleme(FOR İLE EŞİKLEMENİN TERSİ)

```
m1=imread('http://blog.aku.edu.tr/ismailkoyuncu/files/2021/03/test1.jpg');
figure,imshow(m1);
[satir sutun]=size(m1);
k=input('Değer giriniz: ');
for i=1:satir
    for j=1:sutun
        if(m1(i,j)>=k)
            m2(i,j)=0;
        else
            m2(i,j)=255;

        end;

    end;
end;
figure,imshow(m2);
```

KISA KODLA İLE TRESHOLD(FOR KULLANILMADAN)

```
m1=imread('http://blog.aku.edu.tr/ismailkoyuncu/files/2021/03/test1.jpg');
esik=input('Lütfen değeri giriniz: ');
figure,imshow(m1);
m2=(m1>=128);
figure,imshow(m2);
```

İM2BW KOMUTU İLE TRESHOLD(EŞİKLEME)

```
m1=imread('http://blog.aku.edu.tr/ismailkoyuncu/files/2021/03/test1.jpg');
siyahbeyaz=im2bw(m1);
siyahbeyaz1=im2bw(m1,0.25);
siyahbeyaz2=im2bw(m1,0.75);
figure,imshow(siyahbeyaz);
figure,imshow(siyahbeyaz1);
figure,imshow(siyahbeyaz2);
```

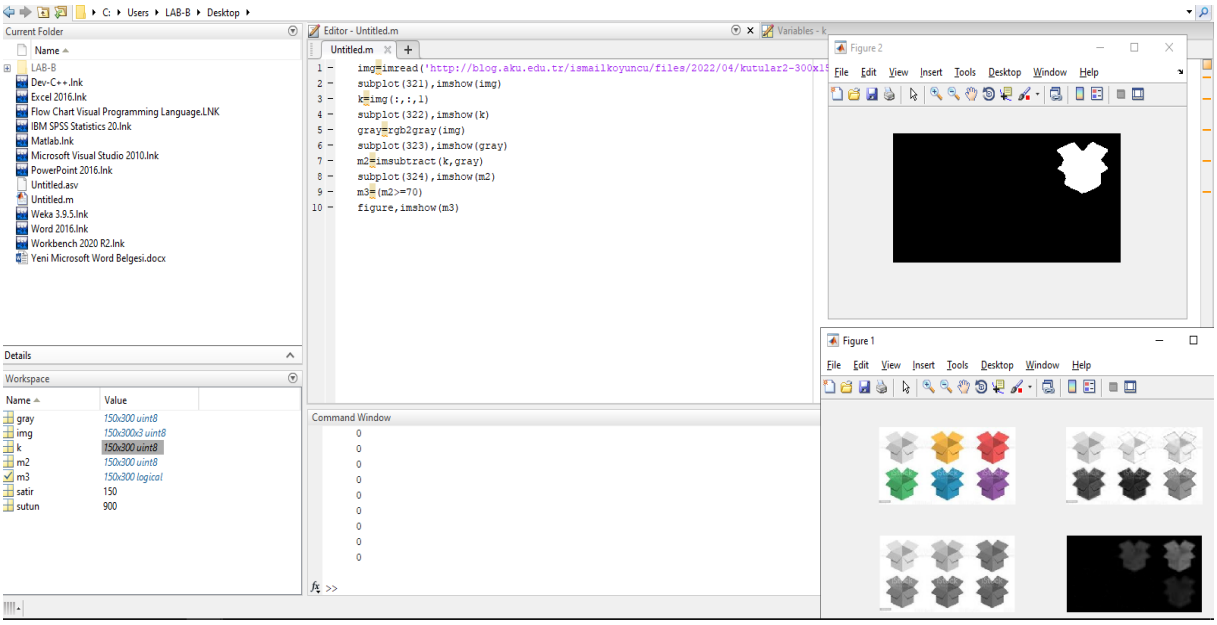
Soru 1

```
m1=imread('http://blog.aku.edu.tr/ismailkoyuncu/files/2021/03/test3-
300x227.jpg');
subplot(232),imshow(m1);
gray =rgb2gray(m1)
subplot(231),imshow(gray);
m3=255-gray;
subplot(233),imshow(m3);
sb1=im2bw(m1)
subplot(234),imshow(sb1);
sb=im2bw(m3);
subplot(235),imshow(sb);
```

Resimleri double ve uint8 dönüştürme komutu

```
m1=imread('http://blog.aku.edu.tr/ismailkoyuncu/files/2021/03/test1.jpg');
subplot(221),imshow(m1); title('Orjinal(uint8)');
m2=im2double(m1);subplot(222),imshow(m2);title('Dobule türünde');
m3=im2uint8(m2);subplot(223),imshow(m3);title('uint8 dönüştürme');
m4=im2uint16(m1);subplot(224),imshow(m4);title('uint16 dönüştürme');
```

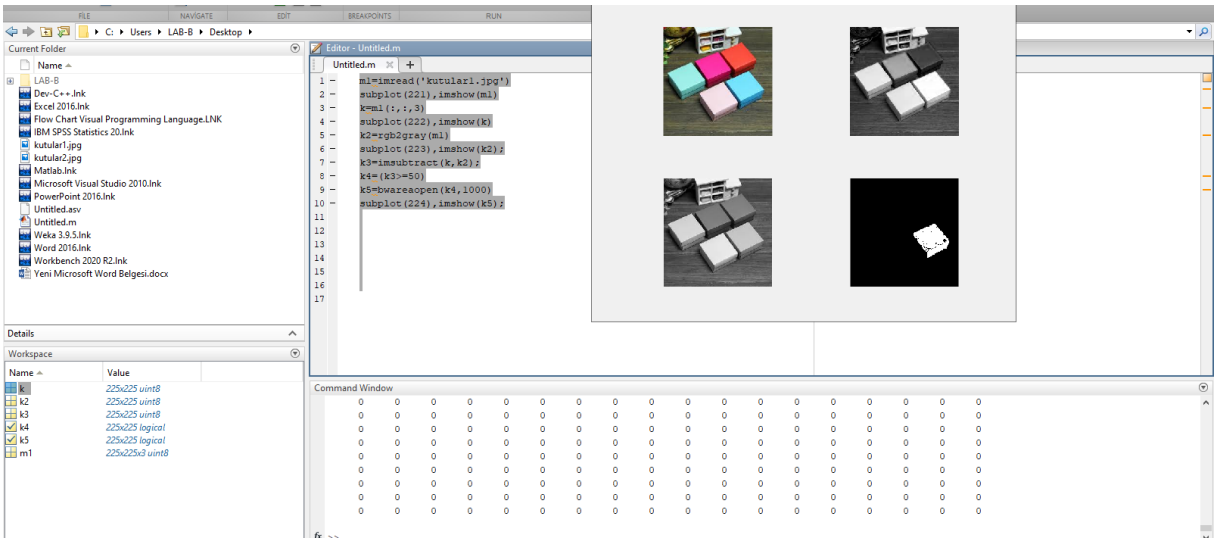
Kırmızı Kutuyu Çekme İşlemi



Kod:

```
img=imread('http://blog.aku.edu.tr/ismailkoyuncu/files/2022/04/kutular2-300x150.jpg')
subplot(321),imshow(img)
k=img(:,:,1)
subplot(322),imshow(k)
gray=rgb2gray(img)
subplot(323),imshow(gray)
m2=imsubtract(k,gray)
subplot(324),imshow(m2)
m3=(m2>=70)
figure,imshow(m3)
m4=bwareaopen(m3,1000)
figure,imshow(m4)
```

Örnek 3



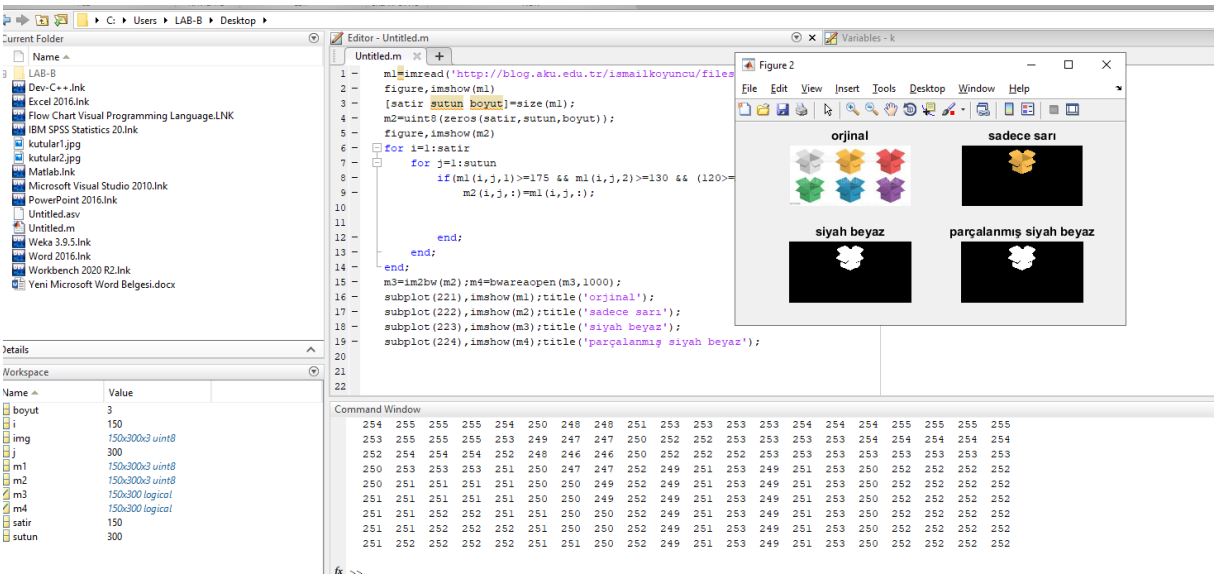
```
m1=imread('kutular1.jpg')
subplot(221),imshow(m1)
k=m1(:,:,3)
subplot(222),imshow(k)
k2=rgb2gray(m1)
subplot(223),imshow(k2);
k3=imsubtract(k,k2);
k4=(k3>=50)
k5=bwareaopen(k4,1000)
subplot(224),imshow(k5);
```

MAVİ KUTUYU ÇEKME İŞLEMİ

Benim yazdığım kod

```
subplot(221),imshow(img)
k=img(:,:,2)
k1=img(:,:,3)
m2=imsubtract(k,k1)
subplot(222),imshow(m2)
m3=(m2>=83)
subplot(223),imshow(m3)
m4=bwareaopen(m3,1000)
subplot(224),imshow(m4)
```

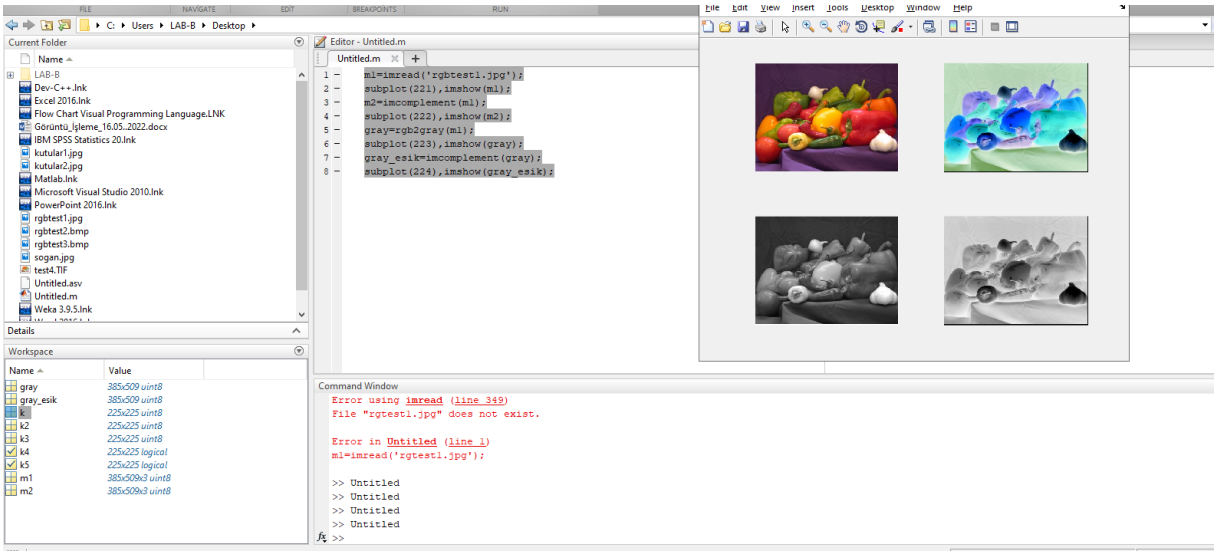
Hocanın Yazdığı Kod




```
m1=imread('http://blog.aku.edu.tr/ismailkoyuncu/files/2022/04/kutular2-300x150.jpg')
figure,imshow(m1)
[satir sutun boyut]=size(m1);
m2=uint8(zeros(satir,sutun,boyut));
figure,imshow(m2)
for i=1:satir
    for j=1:sutun
        if(m1(i,j,1)>=175 && m1(i,j,2)>=130 && (120>=m1(i,j,3)&&
m1(i,j,3)>=20))
            m2(i,j,:)=m1(i,j,:);


        end;
    end;
end;
m3=im2bw(m2);m4=bwareaopen(m3,1000);
subplot(221),imshow(m1);title('orjinal');
subplot(222),imshow(m2);title('sadece sarı');
subplot(223),imshow(m3);title('siyah beyaz');
subplot(224),imshow(m4);title('parçalanmış siyah beyaz');
```

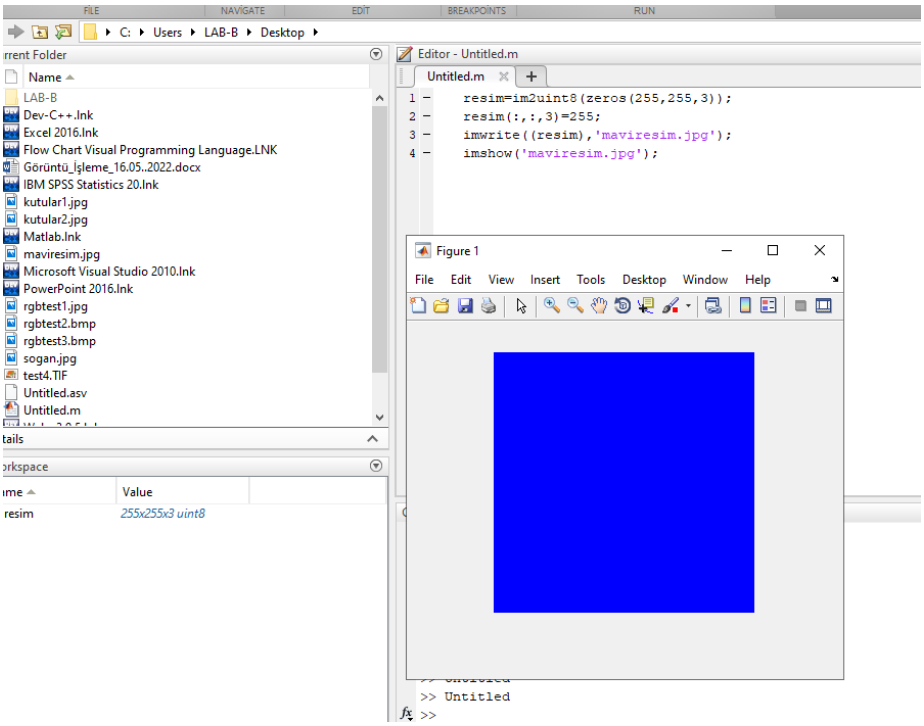
Örnek 4:



Kod

```
m1=imread('rgbtest1.jpg');
subplot(221),imshow(m1);
m2=imcomplement(m1);
subplot(222),imshow(m2);
gray=rgb2gray(m1);
subplot(223),imshow(gray);
gray_esik=imcomplement(gray);
subplot(224),imshow(gray_esik);
```

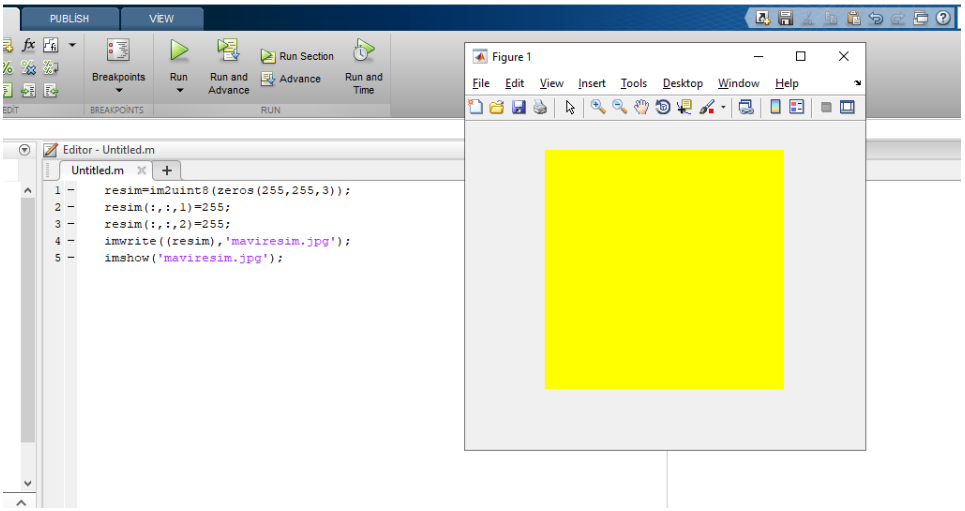
Örnek 5



Kod

```
resim=im2uint8(zeros(255,255,3));
resim(:,:,3)=255;
imwrite((resim),'maviresim.jpg');
imshow('maviresim.jpg');
```

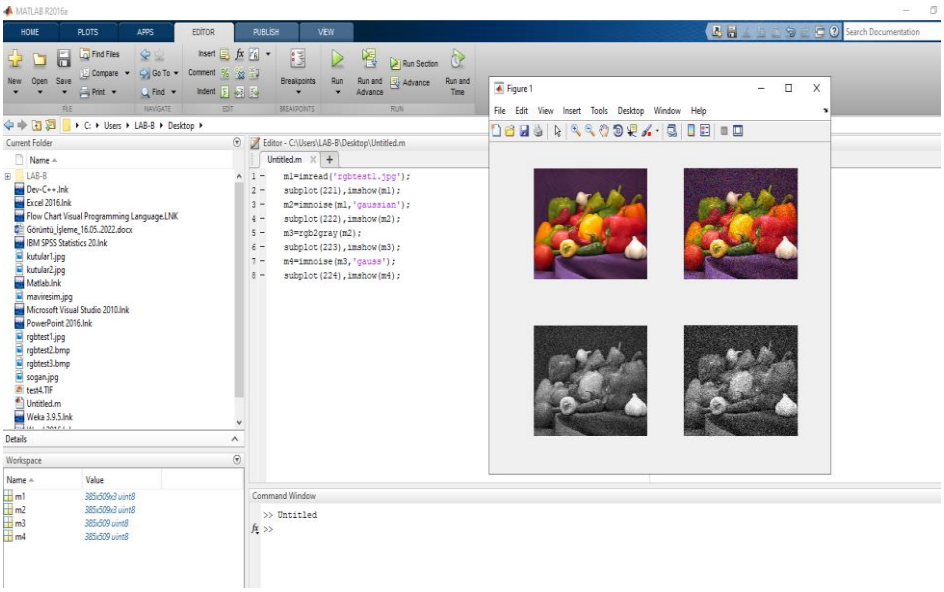
Örnek 6



Kod

```
resim=im2uint8(zeros(255,255,3));
resim(:,:,1)=255;
resim(:,:,2)=255;
imwrite((resim),'maviresim.jpg');
imshow('maviresim.jpg');
```

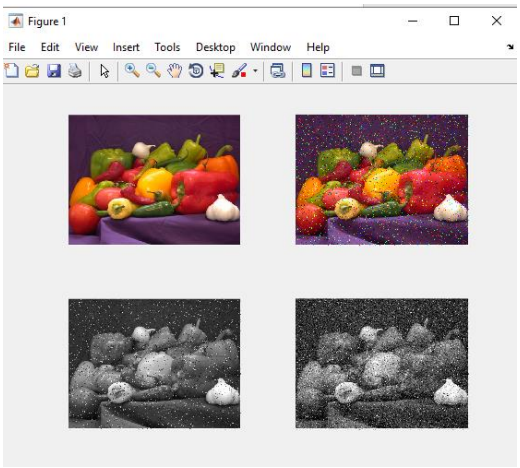
Gaussian İle Gürültü



Kod Kısmı

```
m1=imread('rgbtest1.jpg');
subplot(221),imshow(m1);
m2=imnoise(m1,'gaussian');
subplot(222),imshow(m2);
m3=rgb2gray(m2);
subplot(223),imshow(m3);
m4=imnoise(m3,'gauss');
subplot(224),imshow(m4);
```

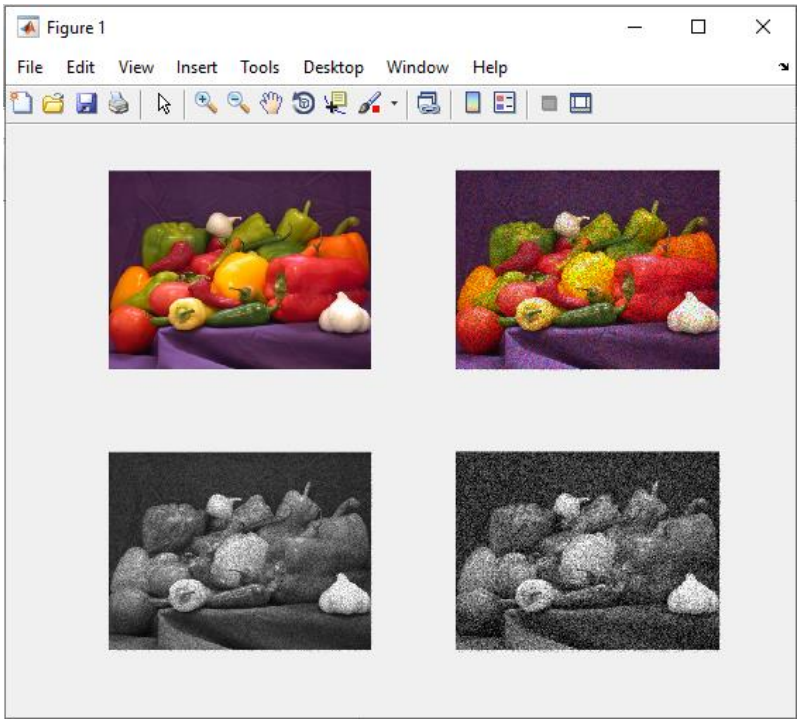
Salt & Pepper Gürültüsü




```
m1=imread('rgbtest1.jpg');
subplot(221),imshow(m1);
m2=imnoise(m1,'salt & pepper');
subplot(222),imshow(m2);
```

```
m3=rgb2gray(m2);
subplot(223),imshow(m3);
m4=imnoise(m3,'gauss');
subplot(224),imshow(m4);
```

Speckle Gürültüsü




```
m1=imread('rgbtest1.jpg');
subplot(221),imshow(m1);
m2=imnoise(m1,'speckle');
subplot(222),imshow(m2);
m3=rgb2gray(m2);
subplot(223),imshow(m3);
m4=imnoise(m3,'gauss');
subplot(224),imshow(m4);
```

MOTION UYGULAMASI

```
m1=imread('http://blog.aku.edu.tr/ismailkoyuncu/files/2021
/03/test1.jpg');
subplot(121), imshow(m1);
F=fspecial('motion');
m2=imfilter(m1,F);
subplot(122),imshow(m2);
title('motion filtersi');
```

Prewitt Filitresi

```
m3=imread('http://blog.aku.edu.tr/ismailkoyuncu/files/2021
/03/test1.jpg');
subplot(221),imshow(m3);
F=fspecial('prewitt');
m4=imfilter(m3,F);
subplot(222),imshow(m4,F); title('Prewitt maskesi');
```

Unsharp Filitresi

```
m1=imread('http://blog.aku.edu.tr/ismailkoyuncu/files/2021
/03/test1.jpg');
subplot(121),imshow(m1);
F=fspecial('unsharp');
m2=imfilter(m1,F);
subplot(122),imshow(m2);title('unsharp filitresi');
```

Sobel Filitresi

```
m1=imread('http://blog.aku.edu.tr/ismailkoyuncu/files/2021
/03/test1.jpg');
subplot(121),imshow(m1);
F=fspecial('sobel');
m2=imfilter(m1,F);
subplot(122),imshow(m2);title('sobel Filitresi');
```

Prewitt , Horizontal , Vertical Maskesi

```
m1=imread('http://blog.aku.edu.tr/ismailkoyuncu/files/2021
/03/test1.jpg');
subplot(321),imshow(m1); title('orjinal resim');
F=fspecial('prewitt');
m2=imfilter(m1,F);
subplot(322),imshow(m2);title('prewitt uygulanmış');
m3=edge(m1,'prewitt');
subplot(323),imshow(m3);title('prewitt fspecial maskesi');
m4=edge(m1,'prewitt','horizontal');
subplot(324),imshow(m4);title('prewitt horizontal');
m5=edge(m1,'prewitt','vertical');
subplot(325),imshow(m5);title('prewitt vertical');
```

Gauss İle Filitreleme

```
m1=imread('http://blog.aku.edu.tr/ismailkoyuncu/files/2021
/03/test1.jpg');
subplot(221),imshow(m1);
m2=imnoise(m1,'gauss');
subplot(222),imshow(m2);
F=fspecial('average',[3 3]);
m3=imfilter(m2,F);
subplot(223),imshow(m3);
F2=fspecial('average',[3 3]);
m4=imfilter(m3,F2);
subplot(224),imshow(m4);
```