

Assignment

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clear
clc
%Alphabets and Numbers
n0=[1,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,0,0,1,1,1,0,0,1;1,0,0,1,1,1,0,0,1;1
,0,0,1,1,1,0,0,1;1,0,0,1,1,1,0,0,1;1,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,1;1,1,1,
1,1,1,1,1,1];
n1=[1,1,1,1,0,0,1,1,1;1,1,1,0,0,0,1,1,1;1,1,0,0,0,0,1,1,1;1,1,1,0,0,0,1,1,1;1
,1,1,0,0,0,1,1,1;1,1,1,0,0,0,1,1,1;1,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,1;1,1,1,
1,1,1,1,1,1];
n2=[1,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,1,1,1,1,1,0,0,1;1,0,0,0,0,0,0,0,0,1;1
,0,0,0,0,0,0,0,0,1;1,0,0,1,1,1,1,1,1;1,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,1,1,
1,1,1,1,1,1];
n3=[1,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,1,1,1,1,1,0,0,1;1,0,0,0,0,0,0,0,0,1;1
,0,0,0,0,0,0,0,0,1;1,1,1,1,1,1,0,0,1;1,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,1,1,
1,1,1,1,1,1];
n4=[1,1,1,1,0,0,1,1;1,1,1,0,0,0,0,1,1;1,1,0,0,0,0,0,1,1;1,0,0,0,1,0,0,1,1;1
,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,1;1,1,1,1,1,0,0,1,1;1,1,1,1,1,0,0,1,1;1,1,1,
1,1,1,1,1,1];
n5=[1,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,0,0,1,1,1,1,1,1;1,0,0,0,0,0,0,0,0,1;1
,0,0,0,0,0,0,0,0,1;1,1,1,1,1,1,0,0,1;1,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,1,1,
1,1,1,1,1,1];
n6=[1,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,0,0,1,1,1,1,1,1;1,0,0,0,0,0,0,0,0,1;1
,0,0,0,0,0,0,0,0,1;1,0,0,1,1,1,0,0,1;1,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,1,1,
1,1,1,1,1,1];
n7=[1,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,1,1,1,1,0,0,0,1;1,1,1,1,0,0,0,1,1;1
,1,1,0,0,0,1,1,1;1,1,0,0,0,1,1,1,1;1,0,0,0,1,1,1,1,1;1,0,0,1,1,1,1,1,1;1,1,1,
1,1,1,1,1,1];
n8=[1,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,0,0,1,1,1,0,0,1;1,0,0,0,0,0,0,0,0,1;1
,0,0,0,0,0,0,0,0,1;1,0,0,1,1,1,0,0,1;1,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,1,1,
1,1,1,1,1,1];
n9=[1,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,0,0,1,1,1,0,0,1;1,0,0,0,0,0,0,0,0,1;1
,0,0,0,0,0,0,0,0,1;1,1,1,1,1,1,0,0,1;1,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,1,1,
1,1,1,1,1,1];
A=[1,1,1,0,0,0,1,1,1;1,1,0,0,0,0,0,1,1;1,0,0,0,0,0,0,0,1;1,0,0,1,1,1,0,0,1;1
,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,0,0,1,1,1,0,0,1;1,0,0,1,1,1,0,0,1;1,1,1,1
,1,1,1,1,1];
B=[1,0,0,0,0,0,0,0,1,1;1,0,1,1,1,1,1,0,1;1,0,1,1,1,1,0,1,1;1,0,0,0,0,0,1,1,1;1
,0,0,0,0,0,1,1,1;1,0,1,1,1,1,0,1,1;1,0,1,1,1,1,1,0,1;1,0,0,0,0,0,0,1,1;1,1,1,1,1
,1,1,1,1,1];
C=[1,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,0,0,1,1,1,1,1,1;1,0,0,1,1,1,1,1,1;1
,0,0,1,1,1,1,1,1;1,0,0,1,1,1,1,1,1;1,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,1,1,1,
1,1,1,1,1];
D=[1,0,0,0,0,0,1,1,1;1,0,0,0,0,0,0,1,1;1,0,1,1,1,1,0,0,1;1,0,1,1,1,1,0,0,1;1
,0,1,1,1,1,0,0,1;1,0,1,1,1,1,0,0,1;1,0,0,0,0,0,0,1,1;1,0,0,0,0,0,1,1,1;1,1,1,1,1
,1,1,1,1,1];
E=[1,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,0,0,1,1,1,1,1,1;1,0,0,0,0,0,0,0,0,1;1
,0,0,0,0,0,0,0,0,1;1,0,0,1,1,1,1,1,1;1,0,0,0,0,0,0,0,0,1;1,0,0,0,0,0,0,0,0,1;1,1,1,1,
1,1,1,1,1];
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%To display image
WhiteBox=[1;1;1;1;1;1;1;1;1;1];
WhiteBox2=[1];
OUT2=[];
count1=1;

%To allow Vehicle with ODD or EVEN Carplate number to enter the city
Carin=input('Enter 2 to allow Vehicle with EVEN carplate to enter the city or
enter 1 to allow ODD carplate:');
count=0;

%If Vehicles with ODD Carplate number are allowed to enter the city
while Carin==1
    IN=input('Enter Carplate or press s to stop:', 's');
    if IN=='s'
        break
    end
    INcopy=IN;
    trash=isletter(INcopy);
    INcopy(trash)=[];
    INnew=sscanf(INcopy, '%e');
    if mod(INnew,2)==0
        count=count+1;
        Carplate{count}=IN;
        disp('Vehicle is violated');
    elseif mod(INnew,2)==1
        continue
    end

    h=size(IN,2);
    OUT=[];
    for n=1:h
        if IN(n)=='A'
            OUT=[OUT A];
        elseif IN(n)=='B'
            OUT=[OUT B];
        elseif IN(n)=='C'
            OUT=[OUT C];
        elseif IN(n)=='D'
            OUT=[OUT D];
        elseif IN(n)=='E'
            OUT=[OUT E];
        elseif IN(n)=='0'
            OUT=[OUT n0];
        elseif IN(n)=='1'
            OUT=[OUT n1];
        elseif IN(n)=='2'
            OUT=[OUT n2];
        elseif IN(n)=='3'
            OUT=[OUT n3];
        elseif IN(n)=='4'
            OUT=[OUT n4];
        elseif IN(n)=='5'
            OUT=[OUT n5];
        elseif IN(n)=='6'

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        OUT=[OUT n6];
        elseif IN(n)=='7'
            OUT=[OUT n7];
        elseif IN(n)=='8'
            OUT=[OUT n8];
        elseif IN(n)=='9'
            OUT=[OUT n9];
        end
    end

count1=count1+1;
if (size(OUT2,2)>size(OUT,2))
    for p=1:size(OUT2,2)-size(OUT,2)
        OUT=[OUT,WhiteBox];
    end
end

if (size(OUT,2)>size(OUT2,2))
    for p=1:(size(OUT,2)-size(OUT2,2))
        WhiteBox2=ones(size(OUT2,1),1);
        OUT2=horzcat(OUT2,WhiteBox2);
    end
end

OUT2=vertcat(OUT2,OUT);
imshow(OUT2);
end

%If Vehicles with EVEN Carplate number are allowed to enter the city
while Carin==2
    IN=input('Enter Carplate or press s to stop:', 's');
    if IN=='s'
        break
    end
    INcopy=IN;
    trash=isletter(INcopy);
    INcopy(trash)=[];
    INnew=sscanf(INcopy, '%e');
    if mod(INnew,2)==1
        count=count+1;
        Carplate{count}=IN;
        disp('Vehicle is violated');
    elseif mod(INnew,2)==0
        continue
    end
    h=size(IN,2);
    OUT=[];
    for n=1:h
        if IN(n)=='A'
            OUT=[OUT A];
        elseif IN(n)=='B'

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        OUT=[OUT B];
        elseif IN(n)=='C'
        OUT=[OUT C];
        elseif IN(n)=='D'
        OUT=[OUT D];
        elseif IN(n)=='E'
        OUT=[OUT E];
        elseif IN(n)=='0'
        OUT=[OUT n0];
        elseif IN(n)=='1'
        OUT=[OUT n1];
        elseif IN(n)=='2'
        OUT=[OUT n2];
        elseif IN(n)=='3'
        OUT=[OUT n3];
        elseif IN(n)=='4'
        OUT=[OUT n4];
        elseif IN(n)=='5'
        OUT=[OUT n5];
        elseif IN(n)=='6'
        OUT=[OUT n6];
        elseif IN(n)=='7'
        OUT=[OUT n7];
        elseif IN(n)=='8'
        OUT=[OUT n8];
        elseif IN(n)=='9'
        OUT=[OUT n9];
        end
    end

count1=count1+1;
if (size(OUT2,2)>size(OUT,2))
    for p=1:size(OUT2,2)-size(OUT,2)
        OUT=[OUT, WhiteBox];
    end
end

if (size(OUT,2)>size(OUT2,2))
    for p=1:(size(OUT,2)-size(OUT2,2))
        WhiteBox2=ones(size(OUT2,1),1);
        OUT2=horzcat(OUT2,WhiteBox2);
    end
end

OUT2=vertcat(OUT2,OUT);
imshow(OUT2);
end

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