

Ushtrime me Matrica

Ushtrimi 1 Te ndertohet nje program ne gjuhen C, i cili gjen dhe afishon elementin minimal dhe maksimal te nje matrice me numra te plote.

```
#include <stdio.h>
main ()
{
    int i,j,n,m,v[100][100];
    int min,max;
    printf("Jepni numrin e rreshtave.\n");
    scanf("%d", &n);
    printf("Jepni numrin e kolonave.\n");
    scanf("%d", &m);
    printf("Jepni %d elementet e matrices.\n", n*m);
    for(i=0;i<n;i++)
    {
        for(j=0;j<m;j++)
            scanf("%d", &v[i][j]);
    }

    min=10000000;
    for(i=0;i<n;i++)
    {
        for(j=0;j<m;j++)
            if(v[i][j]<min)
                min=v[i][j];
    }
    max=-10000000;
    for(i=0;i<n;i++)
    {
        for(j=0;j<m;j++)
            if(v[i][j]>max)
                max=v[i][j];
    }
    printf("\n\nMinimumi eshte %d.", min);
    printf("\n\nMaximumi eshte %d.", max);
}
```

Ushtrimi 2 Te ndertohet nje program ne gjuhen C, i cili gjen dhe afishon indeksat e elementeve te barabarte ndermjet tyre te nje matrice me numra te plote.

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

```

main()
{
    int i,j,n,m,v[100][100];
    printf("Jepni numrin e rreshtave te matrices:\n");
    scanf("%d", &n);
    printf("Jepni numrin e kolonave te matrices:\n");
    scanf("%d", &m);
    printf("Jepni %d elementet e matrices:\n", n*m);
    for(i=0;i<n;i++)
    {
        for(j=0;j<m;j++)
            scanf("%d", &v[i][j]);
    }
    printf("Indekset e elementeve te barabarte ndermjet tyre jane:\n");
    for(i=0;i<n-1;i++)
    {
        for(j=0;j<m-1;j++)
        {
            for(int k=i+1;k<n;k++)
            {
                for(int l=j+1;l<m;l++)
                if(v[i][j]==v[k][l])
                printf(" [%d] [%d] = [%d] [%d] " , i,j,k,l);
                printf("\n");
            }
        }
    }
}

```

Ushtrimi 3 Te ndertohtet nje program ne gjuhen C, i cili gjen dhe afishon shumen per cdo rresht te nje matrice me numra te plote.

```

#include <stdio.h>
int main ()
{
    int i,j,n,m,v[100][100];
    int sr;
    printf("Jepni numrin e rreshtave te matrices:\n");
    scanf("%d", &n);
    printf("Jepni numrin e kolonave te matrices:\n");
    scanf("%d", &m);
    printf("Jepni %d elementet e matrices:\n", n*m);

```

```

for(i=0;i<n;i++)
{
for(j=0;j<m;j++)
scanf("%d", &v[i][j]);
}
for(i=0;i<n;i++)
{
sr=0;
for(j=0;j<m;j++)
{
sr+=v[i][j];
}
printf("Shuma e cdo rreshti eshte%d:\n",sr);
}
}

```

Ushtrimi 4 Te ndertohet nje program ne gjuhen C, i cili gjen dhe afishon maksimumin e elementeve te diagonales kryesore te nje matrice me numra te plote.

```

#include <stdio.h>
main ()
{
int i,j,n,max,v[100][100];
printf("Jepni numrin e rreshtave dhe te kolonave te matrices:\n");
scanf("%d", &n);
printf("Jepni %d elementet e matrices:\n", n*n);
for(i=0;i<n;i++)
{
for(j=0;j<n;j++)
scanf("%d", &v[i][j]);
}
max=v[1][0];
for(i=0;i<n;i++)
{
for(j=0;j<n;j++)
if((i==j)&&(v[i][j]>max))
max=v[i][j];
}
printf("Maximumi i elementeve ne diagonalen kryesore eshte %d.", max);
}

```

Ushtrimi 5 Jepet matrica $V[100][100]$ me numra te plote. Te ndertoht programi qe pyet perdoruesin per permasat e matrices dhe gjen minimumin e shumes per cdo rresht.

```
#include <stdio.h>
main ()
{
    int i,j,n,min,m,v[100][100];
    int s[100];
    printf("Jepni numrin e rreshtave te matrices:\n");
    scanf("%d", &n);
    printf("Jepni numrin e kolonave te matrices:\n");
    scanf("%d", &m);
    printf("Jepni %d elementet e matrices:\n", n*m);
    for(i=0;i<n;i++)
    {
        for(j=0;j<m;j++)
            scanf("%d", &v[i][j]);
    }
    printf("Matrica qe ju dhate eshte:\n");
    for(i=0;i<n;i++)
    {
        for(j=0;j<m;j++)
            printf("%3d", v[i][j]);
        printf("\n");
    }
    for(i=0;i<n;i++)
    {
        s[i]=0;
        for(j=0;j<m;j++)
            s[i]=s[i]+v[i][j];
    }
    printf("Shuma e cdo rreshti eshte:\n");
    for(i=0;i<n;i++)
    {
        printf("%d ",s[i]);
        printf("\n");
    }
    min=s[0];
    for(i=1;i<n;i++)
    {
        if(s[i]<min)
            min=s[i];
    }
}
```

```
}  
printf("Minimumi i shumes se cdo rreshti eshte %d.", min );  
}
```