DSA LAB

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TOPIC : Matrix transpose

```
#include <stdio.h>
int main()
{
   int i,j,n,r,c,a[10][10];
   printf("Enter the size of matrix : ");
   scanf("%d%d",&r,&c);
   if(r != c)
      printf("Multiplecation is not possible.\n");
   else{
      printf("Enter the element of matrix : \n");
      for(i=0;i<r;i++){
         for(j=0;j<c;j++)
            scanf("%d",&a[i][j]);
      }
      printf("Transpose of matrix : \n");
      for(i=0;i<r;i++){
         for(j=0;j<c;j++){
            printf("%d ",a[j][i]);
         }
         printf("\n");
      }
   }
   return 0;
}
```

```c
// Abhishek Rajput
// 2100290120007
#include <stdio.h>
int main()
{
    int i,j,n,r,c,a[10][10];
    printf("Enter the size of matrix : ");
    scanf("%d%d",&r,&c);
    if(r != c)
        printf("Multiplecation is not possible.\n");
    else{
        printf("Enter the element of matrix : \n");
        for(i=0;i<r;i++){
            for(j=0;j<c;j++)
                scanf("%d",&a[i][j]);
        }
        printf("Transpose of matrix : \n");
        for(i=0;i<r;i++){
            for(j=0;j<c;j++){
                printf("%d ",a[j][i]);
            }
            printf("\n");
        }
    }
    return 0;
}
```

OUTPUT

```
Enter the size of matrix : 3 3
Enter the element of matrix :
23 4 8
85 3 0
1 45 7
Transpose of matrix :
23 85 1
4 3 45
8 0 7


...Program finished with exit code 0
Press ENTER to exit console.
```