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// WAP to Matrix Multiplication
#include<stdio.h>
int main(){
    int r1,r2,c1,c2;
    printf("Enter number of rows and columns for 1st Matrix: ");
    scanf("%d,%d",&r1,&c1);
    printf("Enter number of rows and columns for 2nd Matrix: ");
    scanf("%d,%d",&r2,&c2);
    if(c1==r2){
        int mat1[r1][c1];
        int mat2[r2][c2];
        int mmat[r1][c2];
        printf("For 1st Matrix:\n");
        for(int i=0; i<r1; i++){
            for(int j=0; j<c1; j++){
                printf("Enter value of row%d and column%d: ",i+1,j+1);
                scanf("%d",&mat1[i][j]);
            }
        }

        printf("For 2nd Matrix:\n");
        for(int i=0; i<r2; i++){
            for(int j=0; j<c2; j++){
                printf("Enter value of row%d and column%d: ",i+1,j+1);
                scanf("%d",&mat2[i][j]);
            }
        }

        printf("1st Matrix:\n");
        for(int i=0; i<r1; i++){
            for(int j=0; j<c1; j++){
                printf("%d ",mat1[i][j]);
            }
            printf("\n");
        }

        printf("2nd Matrix:\n");
        for(int i=0; i<r2; i++){
            for(int j=0; j<c2; j++){
                printf("%d ",mat2[i][j]);
            }
            printf("\n");
        }

        for (int i=0; i<r1; i++){
            for (int j=0; j < c2; j++){
                mmat[i][j] = 0;
            }
        }
        for(int k=0; k<r1; k++){
            for(int l=0; l<c2; l++){
                for(int m=0; m<c1; m++){
                    mmat[k][l] += mat1[k][m]*mat2[m][l];
                }
            }
        }
        printf("Matrix Multiplication:\n");
        for(int i=0; i<r1; i++){

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[illegible]

```
#include<stdio.h>
int main(){
    int r,c;
    printf("Enter number of rows and column: ");
    scanf("%d,%d",&r,&c);
    int mat[r][c];
    int tmat[c][r];
    for(int i=0; i<r; i++){
        for(int j=0; j<c; j++){
            printf("Enter value of row%d and column%d: ",i+1,j+1);
            scanf("%d",&mat[i][j]);
        }
    }
    printf("Matrix:\n");
    for(int i=0; i<r; i++){
        for(int j=0; j<c; j++){
            printf("%d ",mat[i][j]);
        }
        printf("\n");
    }
    printf("Transpose of the Matrix:\n");
    for(int i=0; i<c; i++){
        for(int j=0; j<r; j++){
            tmat[i][j] = mat[j][i];
            printf("%d ",mat[j][i]);
        }
        printf("\n");
    }
    return 0;
}
```