#include <stdio.h>

#include <stdlib.h>

#include <malloc.h>

void init\_matrix(int \*\*myArray, int n)

{

int i,j;

printf("Insert data:\n");

for (i = 0; i < n; i++)

for (j = 0; j < n; j++)

scanf("%d", &\*(\*(myArray+i)+j)));

printf("The introduced Array:\n");

for (i = 0; i < n; i++)

{

for (j = 0; j < n; j++)

printf("%d ", \*(\*(myArray+i)+j));

printf("\n");

}

printf("\n");

}

void first\_matrix(int \*\*myArray,int n)

{ int i,j,m;

printf("\nThe first matrix is: \n");

for (i = 0; i < n/2; i++)

{

for (j = 0; j < m/2; j++)

printf("%d ", \*(\*(myArray+i)+j));

printf("\n");

}

printf("\n");

{

}

}

void second\_matrix(int \*\*myArray, int n)

{ int i,j,m;

printf("\nThe second matrix is: \n");

for (i = 0; i < n/2; i++)

{

for (j = m/2; j < m; j++)

printf("%d ", \*(\*(myArray+i)+j));

printf("\n");

}

printf("\n");

{

}

}

void third\_matrix(int \*\*myArray, int n)

{ int i,j,m;

printf("\nThe third matrix is: \n");

for (i = n/2; i < n; i++)

{

for (j = 0; j < m/2; j++)

printf("%d ", \*(\*(myArray+i)+j));

printf("\n");

}

printf("\n");

{

}

}

void fourth\_matrix(int \*\*myArray, int n)

{ int i,j,m;

printf("\nThe fourth matrix is: \n");

for (i = n/2; i < n; i++)

{

for (j = m/2; j < m; j++)

printf("%d ", \*(\*(myArray+i)+j));

printf("\n");

}

printf("\n");

{

}

}

int main(void)//----------------------------------------------------main function!!!

{

int \*\*myArray,i, n;

printf("Enter the dimmension of Array: ");

scanf("%d", &n);

//alloc memory

myArray = (int \*\*) malloc( n \* sizeof(int\*));

for(i = 0; i< n; i++)

myArray[i] = (int \*) malloc(sizeof(int));

init\_matrix(myArray,n);

first\_matrix(myArray,n);

second\_matrix(myArray,n);

third\_matrix(myArray,n);

fourth\_matrix(myArray,n);

//some methods for mutiply

//free memory

for(i = 0; i< n; i++)

free(myArray[i]);

free(myArray);

printf("\n");

return 0;

}