#include <stdio.h>

void main()

{

int ARRAY1[20], ARRAY2[20], ARRAY3[60], m, n, i, j, k = 0;

printf("\n ENTER SIZE OF ARRAY 1 : ");

scanf("%d", &m);

printf("\n ENTER SORTED ELEMENTS OF ARRAY 1: \n");

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

{

scanf("%d", &ARRAY1[i]);

}

printf("\n ENTER SIZE OF ARRAY 2: ");

scanf("%d", &n);

printf("\n ENTER SORTED ELEMENTS OF ARRAY 2: \n");

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

{

scanf("%d", &ARRAY2[i]);

}

i=0;

j=0;

while (i < m && j < n)

{

if (ARRAY1[i] < ARRAY2[j])

{

ARRAY3[k] = ARRAY1[i];

i++;

}

else

{

ARRAY3[k] = ARRAY2[j];

j++;

}

k++;

}

if (i >= m)

{

while (j < n)

{

ARRAY3[k] = ARRAY2[j];

j++;

k++;

}

}

if (j >= n)

{

while (i < m)

{

ARRAY3[k] = ARRAY1[i];

i++;

k++;

}

}

if (j >= n)

{

while (i < m)

{

ARRAY3[k] = ARRAY1[i];

i++;

k++;

}

}

printf("\n ARRAY 1 : ");

for(int i=0;i<m;i++)

{

printf(" %d ",ARRAY1[i]);

}

printf("\n ARRAY 2 : ");

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

{

printf(" %d ",ARRAY2[i]);

}

printf("\n ARRAY AFTER MERGING: \n");

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

{

printf(" %d ", ARRAY3[i]);

}

}