Write a C program to implement the first-fit algorithm for memory management.

#include<stdio.h>

int main()

{

int i,j;

int nb, b[10];

int np, p[10];

printf(“Enter the number of free blocks\n”);

scanf(“%d”,&nb);

printf(“Enter the size of free block\n”);

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

scanf(“%d”,&b[i]);

printf(“Enter the number of processes\n”);

scanf(“%d”,&np)

printf(“Enter the size of processes\n”);

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

scanf(“%d”,&p[i]);

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

printf(“size of free block %d: %d\n”,i+1,b[i]);

printf(“\n\n”);

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

printf(“size of process %d: %d\n”,i+1,p[i]);

printf(“\n\n”);

printf(“FIRST FIT MEMORY ALLOCATION \n\n”);

printf(“\nProcessno\tAllocated block\t Allocated size\t Fragment in that block\n”);

i=0;

while(i<np)

{

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

{  
if(p[i]<=b[j])

{

b[j]-=p[i];

break;

}

}

printf(“%d\t\t%d\t\t%d\t\t%d\n”,i+1,j+1,p[i],b[j]);

i++;

}

return 0;

}

**OUTPUT:**

Enter the number of free blocks

3

Enter the size of free blocks

10

5

50

Enter the number of processes

2

Enter the size of processes

5

10

Size of free block1:10

Size of free block2:5

Size of free block3:50

Size of process1:5

Size of process2:10

FIRST FIT MEMORY ALLOCATION

Process No Allocated Block Allocated Size Fragment

1 1 5 5

2 3 10 40