20.Construct a C program for implementation of memory allocation using first fit strategy.

**PROGRAM:**

**#include<stdio.h>**

**void firstFit(int blockSize[], int m, int processSize[], int n)**

**{**

**int i, j;**

**int allocation[n];**

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

**{**

**allocation[i] = -1;**

**}**

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

**{**

**for (j = 0; j < m; j++)**

**{**

**if (blockSize[j] >= processSize[i])**

**{**

**allocation[i] = j;**

**blockSize[j] -= processSize[i];**

**break;**

**}**

**}**

**}**

**printf("\nProcess No.\tProcess Size\tBlock no.\n");**

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

**{**

**printf(" %i\t\t\t", i+1);**

**printf("%i\t\t\t\t", processSize[i]);**

**if (allocation[i] != -1)**

**printf("%i", allocation[i] + 1);**

**else**

**printf("Not Allocated");**

**printf("\n");**

**}**

**}**

**int main()**

**{**

**int m;**

**int n;**

**int blockSize[] = {100, 500, 200, 300, 600};**

**int processSize[] = {212, 417, 112, 426};**

**m = sizeof(blockSize) / sizeof(blockSize[0]);**

**n = sizeof(processSize) / sizeof(processSize[0]);**

**firstFit(blockSize, m, processSize, n);**

**return 0 ;**

**}**

**OUTPUT:**

