#include<stdio.h>

#include<stdlib.h>

#include <string.h>

#include "queue.h"

int main(){

char per='y',jno[3];

int bt,c1=0,c2=0;

int wt1=0,wt2=0,count=0;

float owt1=0,owt2=0;

while(per=='y' || per=='Y'){

printf("Enter job number and burst time: ");

scanf("%s %d",jno,&bt);

if(wt1<=wt2){

enqueue(wt1,wt2,jno,bt);

wt1+=bt;

if(count!=0)

owt1+=bt;

c1++;

}

else{

enqueue(wt1,wt2,jno,bt);

wt2+=bt;

if(count!=1)

owt2+=bt;

c2++;

}

count++;

printf("Would you like to add job(y/n): ");

scanf(" %c",&per);

}

printf("\n\n------------------------------------------------------\n");

display();

printf("Average time for Queue 1 is %.2f\n",owt1/c1);

printf("Average time for Queue 2 is %.2f\n",owt2/c2);

}

**----------------------------------------------------------------------queue.h**

typedef struct myquque{

char jno[3];

int bursttime;

struct myqueue \*next;

}queue;

queue \*qf1=NULL,\*qr1=NULL,\*qf2=NULL,\*qr2=NULL;

void enqueue(int wt1,int wt2,char jno[],int bt){

queue \*node;

node=(queue \*)malloc(sizeof(queue));

strcpy(node->jno,jno);

node->bursttime=bt;

node->next=NULL;

if(wt1<=wt2){

if(qf1==NULL)

qf1=qr1=node;

else{

qr1->next=node;

qr1=node;

}

}

else{

if(qf2==NULL)

qf2=qr2=node;

else{

qr2->next=node;

qr2=node;

}

}

}

void display(){

if(qf1==NULL)

printf("Queue 1 is empty\n");

else{

queue \*temp=qf1;

printf("\t\tQueue 1(Job No, Burst Time)\n");

while(temp!=NULL){

printf("(%s, %d)\n",temp->jno,temp->bursttime);

temp=temp->next;

}

}

printf("\n------------------------------------------------------\n");

if(qf2==NULL)

printf("Queue 2 is empty\n");

else{

queue \*temp=qf2;

printf("\t\tQueue 2(Job No, Burst Time)\n");

while(temp!=NULL){

printf("(%s, %d)\n",temp->jno,temp->bursttime);

temp=temp->next;

}

}

printf("\n------------------------------------------------------\n");

}

**----------------------------------------------------------------------OUTPUT**

Enter job number and burst time: J1 6

Would you like to add job(y/n): y

Enter job number and burst time: J2 5

Would you like to add job(y/n): y

Enter job number and burst time: J3 2

Would you like to add job(y/n): y

Enter job number and burst time: J4 3

Would you like to add job(y/n): y

Enter job number and burst time: J5 7

Would you like to add job(y/n): y

Enter job number and burst time: J6 3

Would you like to add job(y/n): y

Enter job number and burst time: J7 7

Would you like to add job(y/n): y

Enter job number and burst time: J8 2

Would you like to add job(y/n): y

Enter job number and burst time: J9 3

Would you like to add job(y/n): y

Enter job number and burst time: J10 7

Would you like to add job(y/n): n

------------------------------------------------------

Queue 1(Job No, Burst Time)

(J1, 6)

(J4, 3)

(J6, 3)

(J7, 7)

(J10, 7)

------------------------------------------------------

Queue 2(Job No, Burst Time)

(J2, 5)

(J3, 2)

(J5, 7)

(J8, 2)

(J9, 3)

------------------------------------------------------

Average time for Queue 1 is 4.00

Average time for Queue 2 is 2.80