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#include<stdio.h>
#define size 5
long int num[size];
int count=0,front=-1,rear=-1,i=0,flag=0;
void check(int);
struct details
{
    int cid;
    char name[20];
    long int n;
    char date[30];
};
struct details d[size];
void enqueue()
{
    if(rear==size-1)
        printf("employee is busy try again later\n");
    else
    {
        long int ele;
        printf("enter the phno of person calling\n");
        scanf("%ld",&ele);
        for(int j=0;j<=i;j++)
        {
            if(ele==d[j].n)
            {
                check(j);
                flag=1;
                break;
            }
        }
        //if(flag==0)
        //{
            rear++;
            num[rear]=ele;
            if(front==-1)
            {
                front=0;
            }
            count++;
        }
    }
}
void deque()
{
    long int item;
    if(front==-1 && rear==size-1)
        printf("no caller is ans yet\n");
    else
    {
        item=num[front];
        front++;
        count--;
        printf("enter the details of person called\n");
        printf("ente name,cid,date resp\n");
        scanf("%s",d[i].name);
        scanf("%d",&d[i].cid);
        // scanf("%d",&d[i].n);
        d[i].n=item;
        scanf("%s",d[i].date);
    }
}

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        i++;
    }
    if(front>rear)
    {
        front=-1;
        rear=-1;
    }
}
void display()
{
    if(front== -1 && rear== -1)
        printf("no calls are ans");
    else
    {
        printf("no. of calls to be ans: %d",count);
        printf("calls to be ans\n");
        for(int j=front;j<=rear;j++)
            printf("%ld\n",num[j]);
    }
}
int main()
{
    int ch;//int num1;
    do
    {
        printf("1.call to be ans\n 2.call answered\n 3.Notifications\n 4.Exit\n ");
        printf("enter the option\n");
        scanf("%d",&ch);
        switch(ch)
        {
            case 1:
                enqueue();
                break;
            case 2:
                deque();
                break;
            case 3:
                display();
                break;
            case 4:
                break;
            default:
                printf("wrong choice");
        }

    }while(ch!=4);
}
void check(int pos)
{
    printf("details of person already called\n");
    printf("name: %s\n",d[pos].name);
    printf("cid: %d\n",d[pos].cid);
    printf("date: %s\n",d[pos].date);
    printf("phno: %ld\n",d[pos].n);
}

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