

/*queue insert delete display*/

```
#include<stdio.h>
```

```
#include<stdlib.h>
```

```
#include<process.h>
```

```
#define MAX 10
```

```
int front=-1;
```

```
int rear=-1;
```

```
int queue[MAX];
```

```
void insert_queue();
```

```
void delete_queue();
```

```
void display_queue();
```

```
int main()
```

```
{
```

```
    int ch;
```

```
    while(1)
```

```
    {
```

```
        printf("press 1 for insert element\n");
```

```
        printf("press 2 for delete element\n");
```

```
        printf("press 3 for display\n");
```

```
        printf("press 4 for exit\n");
```

```
        printf("enter your choice\n");
```

```
        scanf("%d",&ch);
```

```
        switch(ch)
```

```
        {
```

```
            case 1:insert_queue();
```

```
                break;
```

```
            case 2:delete_queue();
```

```
                break;
```

```
            case 3:display_queue();
```

```
                break;
```

```
            case 4:exit(0);
```

```

                default:
                    printf("invalid choice\n");
            }
        }
    }
}

void insert_queue()
{
    int value;
    if(rear==MAX-1)
    {
        printf("queue is full\n");
    }
    else
    {
        if(front== -1)
            front=0;
        rear++;
        printf("enter a value\n");
        scanf("%d",&value);
        queue[rear]=value;
    }
}

void delete_queue()
{
    int x;
    if(front== -1)
    {
        printf("queue is empty\n");
    }
    else
    {

```

```
        x=queue[front];
        printf("%d is deleted\n",x);
        front++;
        if(front>rear)
            front=rear=-1;
    }
}

void display_queue()
{
    int i;
    if(rear==-1)
    {
        printf("queue is empty\n");
    }
    else
    {
        for(i=front;i<=rear;i++)
        {
            printf("%d\n",queue[i]);
        }
    }
}
```

```
C:\Users\HP\OneDrive\Desktop\collage work 3rd sem(dada)\queue insert del display.exe
press 1 for insert element
press 2 for delete element
press 3 for display
press 4 for exit
enter your choice
1
enter a value
10
press 1 for insert element
press 2 for delete element
press 3 for display
press 4 for exit
enter your choice
1
enter a value
20
press 1 for insert element
press 2 for delete element
press 3 for display
press 4 for exit
enter your choice
1
enter a value
30
press 1 for insert element
press 2 for delete element
press 3 for display
press 4 for exit
enter your choice
1
enter a value
40
press 1 for insert element
press 2 for delete element
press 3 for display
press 4 for exit
enter your choice
1
enter a value
50
press 1 for insert element
press 2 for delete element
press 3 for display
press 4 for exit
enter your choice
3
10
30
40
50
press 1 for insert element
press 2 for delete element
press 3 for display
press 4 for exit
enter your choice
2
20 is deleted
press 1 for insert element
press 2 for delete element
press 3 for display
press 4 for exit
enter your choice
3
20
30
40
50
press 1 for insert element
press 2 for delete element
press 3 for display
press 4 for exit
enter your choice
2
20 is deleted
press 1 for insert element
press 2 for delete element
press 3 for display
press 4 for exit
enter your choice
3
30
40
50
press 1 for insert element
press 2 for delete element
press 3 for display
press 4 for exit
enter your choice
2
30 is deleted
press 1 for insert element
press 2 for delete element
press 3 for display
press 4 for exit
enter your choice
3
30
```

```
C:\Users\HP\OneDrive\Desktop\collage work 3rd sem(dada)\queue insert del display.exe
3
50
50
press 1 for insert element
press 2 for delete element
press 3 for display
press 4 for exit
enter your choice
2
50 is deleted
press 1 for insert element
press 2 for delete element
press 3 for display
press 4 for exit
enter your choice
3
50
press 1 for insert element
press 2 for delete element
press 3 for display
press 4 for exit
enter your choice
4
-----
Process exited after 176.9 seconds with return value 0
Press any key to continue . . .
```