Week 7: Prous		
Deak 7: - Proutice program.		
Acercanding priority queus:	11/201 27/08	- huv
#include < stallib.h>		
Moletine of-Size 5	( 6.	1) 0
int r=-1, b=0		ĺ.
int 9(10), ch;		+
void injert-trear ()		11
( )		
ib (1== 9-81ze-1)		
( College of the coll	4.10	
Print (" ). O		1
printf (" In Queue Over flow In");	()	h i av
3	() 2	1
N++;	( )	1) ,
q[h] = itan;		9
com+++;	3/1/2	7
2		2
oid insertion-sort()		, i
70000	1 1	1 1
intinin Keyj		1
for (i=01; i<0 und; i+1)	1 / 10 / 10 /	
{		Y
Key=q(i);		a bico
j=i-1;		
while (1 > = 0 x x g [i] < Key) [// for descending	00:3:1	Shar 7
{	puoung gins	79
9[i+1] = 9[i];		
j i		
٦		(
9 [j+1] = key;		
3	N. W. L.	
. 1860	- Milliand	V CONTROL CONT
	24201	
a6od a		
Date		

```
void delete_ reer()
     ib ( 6> 3)
         1=05
         ルニーは
        printf ("Queue is empty In");
       noturni
     print[ "Item deleted= /d/n" q[n--]);
 void display ()
    if (6 > 72)
       printf ("Queve is empty \n");
       return;
  print ("(oretents of the guerre are: \n");
    for (int i= +; i <= ? i i++)
    printf(" /d \n", q[i])
void main ()
 (ii) sof
      printf (" \n 1: injuret - rear \n 2: delete feut \n 3: displey \no");
       plintf (" Finter you choice: In");
      Sconf (" /. d", Ach);
       Switch (ch) {
          cose 1: printf (" Enter the item: For");
                 Scarf (" 1.d", xitem);
                 intert_ roor ();
                 imerationsoft();
                  block ;
```

Cose 2: clolet feet ()

hreak:

(ase 3: display ()

break:

cost : exit(o);

}

```
2:delete front
3:display
Enter the choice:
Enter the item:
12
1:insert rear
2:delete front
3:display
Enter the choice:
Enter the item:
13
1:insert_rear
2:delete front
3:display
Enter the choice:
Enter the item:
11
1:insert rear
2:delete front
3:display
Enter the choice:
Enter the item:
14
1:insert rear
2:delete front
3:display
Enter the choice:
Enter the item:
10
```

1:insert rear

```
1:insert rear
2:delete front
3:display
Enter the choice:
2:delete front
3:display
Enter the choice:
3
Contents of the queue are:
14
13
12
11
10
1:insert rear
2:delete front
3:display
Enter the choice:
Item deleted=10
1:insert rear
2:delete front
3:display
Enter the choice:
2
Item deleted=11
1:insert rear
2:delete front
3:display
Enter the choice:
Item deleted=12
```

1 106 th 11 4 9	, siè
Musti priority quere:	
#inelude <stdio.h></stdio.h>	
#Include < conio.h>	
# define N 5	
int queue [3][N], front [3]= \(\langle 0,0,0\rangle \), rest[3] = \(\langle 0,0,0\rangle \), item, pr;	
S S S S S S S S S S S S S S S S S S S	1 .
intechi	
while (1)	2
Continue - sicily	
plint! ("Patrotty a	
printf ("PRIORITY QUEUE In \$ ** ** ** * In 1: Painter In 2: F	Odelete In");
scoul (" x 1" a 1)	
switch (ch)	
5	4
CON I : M'ATILL TO THE MENT OF THE	
(986 4: Mintf ("Enter the priority number: "); Scauf (" "d" dpr)	
if (Ph>O de ph<4)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
pg int (ps-1);	
else	
print ("Only 3 priority queue exists 1 23 m"	<u>] ;                                     </u>
GREEK;	
case 2: pg. delete (); Sleet;	
oge 3: display ();	
and langet;	
3 3 grusgasti: Exit(0);	
3 5 3 '	

```
(in this truent pg
   if (run [ph) == N-1)
      printf (" In Queue Overflow In");
     ela
     printf ("Enter the item: ");
       Scanf ("x 1" ditcm);
       hear (pr)++;
      queue [pr] (reor [p/])=1 tims
   Return;
 prodolete()
       int i;
       for (1=0;1<3)14+)
       if (rear [i] == front [i]-1)
            print (" In Queue Empty in");
           printf ["Delete i sem is Y. d of queue x \n", queue[i][front[i]],if1);
          Kront [1]++;
         & return
- display()
     i tri ____
     for (i=0) k3;i++)
         if (ress[i) = = flows[i]-1)
             printf (" In queue empty x d ln", 1+1);
```

else

{

printf=("\n Queue \text{\d'\\int\)}

printf=("\text{\d'\\text{\gueue [i][i]}}

}

return;

```
PRIORITY QUEUE
****************
       1:PQinsert
       2:PQdelete
       3:PQdisplay
       4:Exit
enter the choice:1
enter the priority number:2
enter the item:10
PRIORITY QUEUE
***************
        1:PQinsert
        2:PQdelete
        3:PQdisplay
        4:Exit
enter the choice:1
enter the priority number:1
enter the item:20
PRIORITY QUEUE
1:PQinsert
        2:PQdelete
       3:PQdisplay
        4:Exit
enter the choice:1
enter the priority number:1
enter the item:30
```

## PRIORITY QUEUE \*\*\*\*\*\*\*\*\*\*\*\*\* 1:PQinsert 2:POdelete 3:PQdisplay 4:Exit enter the choice:14 PRIORITY QUEUE \*\*\*\*\*\*\*\*\*\*\*\*\* 1:PQinsert 2:PQdelete 3:PQdisplay 4:Exit enter the choice:3 **QUEUE 1:20** 30 **QUEUE 2:10** 12 13 queue empty 3 PRIORITY QUEUE ...... 1:PQinsert 2:PQdelete 3:PQdisplay 4:Exit enter the choice:2 deleted item is 20 of queue 1

## PRIORITY QUEUE 1:PQinsert 2:PQdelete 3:PQdisplay 4:Exit enter the choice:1 enter the priority number:2 enter the item:12 PRIORITY QUEUE \*\*\*\*\*\*\*\*\*\*\*\*\* 1:PQinsert 2:PQdelete 3:PQdisplay 4:Exit enter the choice:1 enter the priority number:2 enter the item:13 PRIORITY QUEUE \*\*\*\*\*\*\*\*\*\*\*\*\*\* 1:PQinsert 2:PQdelete 3:PQdisplay 4:Exit enter the choice:1 enter the priority number:2 Queue overflow

```
PRIORITY QUEUE
**************
        1:PQinsert
        2:PQdelete
        3:PQdisplay
        4:Exit
enter the choice:2
deleted item is 30 of queue 1
PRIORITY QUEUE
***************
        1:PQinsert
        2:PQdelete
        3:PQdisplay
        4:Exit
enter the choice:3
queue empty 1
QUEUE 2:10
                12
                        13
queue empty 3
PRIORITY QUEUE
***************
        1:PQinsert
        2:PQdelete
        3:PQdisplay
        4:Exit
enter the choice:4
```

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