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Lab → 03

Queue

#include <stdio.h>

#define size 5

int front = -1 and rear = -1

int q[size];

enqueue (int item)

if rear == size - 1 printf queue is full else rear = rear + 1

and q[rear] = item, if front == -1 front + 1;

dequeue ()

int del;

if front == -1 printf queue is empty else del = q[front]

printf element deleted is, del, if front == rear front = -1

and rear = -1 else front = front + 1

display ()

if front == -1 queue is empty else printf queue content

for (i = front; i <= rear; i++) printf ("%d \t ", q[i]);

Code

```
# include < stdio.h >
# include < stdlib.h >
# define size 5
int front = -1 , rear = -1;
int q [ size ];
void enqueue (int item)
{
 if (rear == size -1)
 printf ("\n Queue is full");
 else {
      rear = rear -1;
      q[rear ] = item;
      if (front == -1)
         front = front +1;
 }
}
 void dequeue ()
{
 int del;
 if (front == -1)
   printf ("\n Queue is empty");
 else {
   del = q [front ];
   printf ("\n Element deleted is : %d", del);
   if (front == rear)
   {
     front = -1 ; rear = -1;
   }
    else { front = front + 1; }
                    }
```

```
void display ()
{
    int i;
    if (front == -1)
    printf ("\n Queue is empty");
    else {
        printf ("\n queue content");
        for (i = front; i <= rear; i++)
        printf ("%d \t", q [i]);
    }
}
int main ()
{
  int item, ch;
  for(;;)
  {
    printf ("\n 1. Insert");
    printf ("\n 2. Delete");
    printf ("\n 3. Display");
    printf ("\n Read choice : ");
    scanf ("%d", &ch);
```

```
switch (ch)
{
   case 1 : printf("In read element to be inserted : ");
            scanf("%d", &item);
            enqueue (item);
            break;
   case 2 : dequeue ();
            break();
   case 3 : display ();
            break();
   default : exit (0);
 }
}
return 0;
}
```

Output

1. Insert
2. Delete
3. display
4 exit

read element to be inserted : 10

1. Insert
2 Delete
3 display
4 exit

read element to be inserted : 20

1. Insert
2. Delete
3. display
4 exit

read element to be inserted : 30

read choice 3

Queue content

10 20 30

read choice 2

Queue content

20 30

read choice 2

Queue content

30

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Leet Code 3174

```
class solution {
public :
    string clear digits (string s){
        int n = s.size ();
        string ans = " ";
        int i = 0;
        while (i<n)
       {
        if (isdigit (s[i]))
        {
          ans.pop_back();
        }
        else
        {
          ans.push_back (s[i]);
        }
       i++;
    }
    return ans;
  }
};
```

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