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/******************************************************************************

                  Online C Compiler.
        Code, Compile, Run and Debug C program online.
Write your code in this editor and press "Run" button to compile and execute it.

*******************************************************************************/

#include<stdio.h>
int q[10];
int f,r;
void enqueueFront(int a)
{
   int i;
   if(r+1 == 10)
      printf("\nQ Full");
   else
   {
      if(r == -1) //first element
         f = 0;
      for(i=r;i>=0;i--) //shifitng the elements so that 0th position will be made free
      {
         q[i+1] = q[i];
      }
      q[i+1] = a; //value is enqueued to 0th place
      r = r + 1;
   }
}
void enqueueRear(int a)
{
   if(r+1 == 10)
```

```
        printf("\nQ Full");
    else
    {
        if(r == -1) //firts elemnt
            f = 0;
        q[r+1] = a; //increasing the rear value
        r = r + 1;
    }
}

void dequeueFront()
{
    int i;
    if(f == -1)
        printf("\nQ is empty");
    else
    {
        printf("\n%d %d %d",f,r,q[0]);
        for(i=0;i<r;i++) //shift
        {
            q[i] = q[i+1];
        }
        r = r - 1;
        if(r == -1) //q is empty so f = -1
            f = -1;
    }
}
void dequeueRear()
{
    int i;
    if(f == -1)
```

```
        printf("\nQ is empty");
    else
    {
        printf("\n%d %d %d",f,r,q[r]);
        r = r - 1;
        if(r == -1)
            f = -1;
    }
}

int main()
{
    f = r = -1;
    enqueueFront(10);
    enqueueFront(20);
    enqueueFront(30);
    enqueueFront(40);
    dequeueRear();
    dequeueRear();
    dequeueFront();
    dequeueFront();
    dequeueFront();
    dequeueFront();
    return 0;
}
```