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

#define SIZE 3

int front = -1;
int rear = -1;

int Q[SIZE];
void EnQ(int);
int DeQ();
void display();

int main(int argc, char **argv)
{
   int choice, item;
   do
   {
      printf("\nEnter choice 1.EnQ 2.DeQ 3.display 4.Exit:");
      scanf("%d", &choice);
      switch(choice)
      {
         case 1: printf("Enter the element to be added to the Q:");
                 scanf("%d", &item);
                 EnQ(item);
                 break;
         case 2: item = DeQ();
                 if(item == -1)
                    printf("Q is empty");
                 else
                    printf("Item removed from Q: %d", item);
                 break;
         case 3: display();
                 break;
         case 4: exit(0);
```

```
    }
  } while (choice != 4);
  return 0;
}
void EnQ (int el)
{
  if (rear == (SIZE-1))
      printf ("Q is full");
  else
  {
    if (rear == -1)
      front == 0;
    rear += 1;
    Q[rear] = el;
  }
}
int DeQ ()
{
  int item;
  if (front == -1)
    return -1;
  else
  {
    item = Q[front];
    front += 1;
    if (front > rear)
    {
      front = -1;
      rear = -1;
    }
  return item;
}
```

```
void display()
{
   int i;
   if (front == -1)
     printf ("Q is empty");
   else
   {
    printf ("Q contents are :");
    for(i = front ; i <= rear ; i++)
        printf ("%d\t", Q[i]);
   }
}
```