Queue of integers. - lab 3.

```
#include <stdio.h>
#include <stdlib.h>
#define QUE_SIZE 5
int item, front = 0, rear = -1, q[10];
void insertrear()
{
  if (rear == QUE_SIZE - 1)
  {
    printf("-----\n");
    printf("Queue Overflow \n");
    printf("-----\n");
    return;
  }
```

```
rear ++;
q[rear] = item;
}
int deletefront()
{
  if (front > rear)
  {   front = 0; rear = -1;
      return -1;
  }
  return q[front++];
}
void displayQ()
{
  if (front > rear)
  {  printf(" ---- \n");
     printf("Queue is empty \n");
     printf(" ---- \n");
     return;
  }
  printf("Contents of Queue \n");
  for (int i= front; i<=rear; i++)
   {    printf("%d \n", q[i]); }
}
```

```
void main()
{
    int choice;
    for (;;)
    { printf("Enter \n 1. for insertion \n 2. for deletion
    \n 3. for display \n 4. exit \n");
    scanf("%d",&choice);
    switch (choice)
    {
        case 1: printf("Enter the item to be
                inserted \n");
                scanf("%d", &item);
                insertrear();
                break;
        case 2: item = deletefront();
                if (item == -1)
                { printf("-------\n");
                  printf("Queue is empty\n");
                  printf("-------\n");
                }
                else
                    printf("Item deleted = %d \n", item
                break;
        case 3: displayQ();
                break;
```

```
default : exit(0);
}
}
}
```