14/10/2020.

LAB-3

```
#include <stdio.h>
#include <stdlib.h>
#define QUE_SIZE 3
int item, front=0, rear=-1, q[10];

void insertrear() {
  if (rear == QUE_SIZE-1) {
    printf("QUEUE_OVERFLOW");
    return;
  }
  rear++;
  q[rear] = item;
}

int deletefront() {
  if (front > rear) {
    printf("QUEUE is Empty");
    return;
  }
  front = 0;
  rear = -1;
```

```
    return -1;
  }
  return q[front++];
}

void display() {
    if (front > rear) {
        printf("Queue is Empty");
        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. Insertion \n 2. Deletion \n
        3. DISPLAY \n 4. EXIT.");
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("Queue is empty");
        }
```

```
        else
        printf ("Item deleted = %d \n", item);
        break;
case 3 : display ();
            break;
default : exit (0);
  }
}
}
```