Implement a Queue using Array and develop functions to perform enqueue and dequeue operations.

#include <stdio.h>

#define MAX\_SIZE 100

int queue[MAX\_SIZE];

int front = -1;

int rear = -1;

void enqueue(int element) {

if (rear == MAX\_SIZE - 1) {

printf("Queue overflow\n");

return;

}

if (front == -1) {

front = 0;

}

rear++;

queue[rear] = element;

}

void dequeue() {

if (front == -1 || front > rear) {

printf("Queue underflow\n");

return;

}

front++;

}

void printQueue() {

if (front == -1 || front > rear) {

printf("Queue is empty\n");

return;

}

printf("Queue: ");

for (int i = front; i <= rear; i++) {

printf("%d ", queue[i]);

}

printf("\n");

}

int main() {

enqueue(10);

enqueue(20);

enqueue(30);

printQueue();

dequeue();

printQueue();

enqueue(40);

printQueue();

dequeue();

dequeue();

printQueue();

dequeue();

return 0;

}