**13. Write a C program to implement Queue operations such as ENQUEUE, DEQUEUE and Display**

#include <stdio.h>

#include <stdlib.h>

#define MAX 5

int queue[MAX], front = -1, rear = -1;

void enqueue(int value) {

if(rear == MAX-1) {

printf("Queue Overflow! Cannot enqueue %d\n", value);

} else {

if(front == -1) front = 0;

queue[++rear] = value;

printf("Enqueued %d\n", value);

}

}

void dequeue() {

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

printf("Queue Underflow! Cannot dequeue\n");

} else {

printf("Dequeued %d\n", queue[front++]);

if(front > rear) front = rear = -1;

}

}

void display() {

if(front == -1) {

printf("Queue is empty\n");

} else {

printf("Queue elements: ");

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

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

}

printf("\n");

}

}

int main() {

int choice, value;

while(1) {

printf("\nQueue Operations:\n");

printf("1. ENQUEUE\n2. DEQUEUE\n3. DISPLAY\n4. EXIT\n");

printf("Enter choice: ");

scanf("%d", &choice);

switch(choice) {

case 1:

printf("Enter value to enqueue: ");

scanf("%d", &value);

enqueue(value);

break;

case 2:

dequeue();

break;

case 3:

display();

break;

case 4:

exit(0);

default:

printf("Invalid choice!\n");

}

}

return 0;

}