#include <stdio.h>

#include <stdlib.h>

#define MAX 6

int Q[MAX];

int front = -1, rear = -1;

void insert() {

if (rear == MAX - 1) {

printf("Error: Queue is full\n");

return;

}

int element;

printf("Enter element to be added: ");

scanf("%d", &element);

if (front == -1) {

front = rear = 0;

} else {

rear++;

}

Q[rear] = element;

printf("%d enqueued to the queue\n", element);

}

void delete() {

if (front == -1) {

printf("Error: Queue is empty\n");

return;

}

int element = Q[front];

if (front == rear) {

front = rear = -1;

} else {

front++;

}

printf("%d dequeued from the queue\n", element);

}

void display() {

if (front == -1) {

printf("Error: Queue is empty\n");

return;

}

printf("Elements in the queue: ");

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

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

}

printf("\n");

}

int main() {

int choice;

do {

printf("\n1. Insert\n2. Delete\n3. Display\n4. Exit\n");

printf("Enter your choice: ");

scanf("%d", &choice);

switch (choice) {

case 1:

insert();

break;

case 2:

delete();

break;

case 3:

display();

break;

case 4:

printf("Exiting program\n");

break;

default:

printf("Invalid choice\n");

}

} while (choice != 4);

return 0;

}