#include <stdio.h>

#define SIZE 5

int Q[SIZE];

int front = -1, rear = -1;

void cir\_enqueue(int element) {

if ((rear + 1) % SIZE == front) {

printf("Queue is full. Cannot insert.\n");

return;

}

if (front == -1) {

front = rear = 0;

} else {

rear = (rear + 1) % SIZE;

}

Q[rear] = element;

printf("Element %d inserted successfully.\n", element);

}

void cir\_dequeue() {

if (front == -1) {

printf("Queue is empty. Cannot delete.\n");

return;

}

printf("Deleted element: %d\n", CQ[front]);

if (front == rear) {

front = rear = -1;

} else {

front = (front + 1) % SIZE;

}

}

void display() {

if (front == -1) {

printf("Queue is empty.\n");

return;

}

int i = front;

printf("Queue elements: ");

do {

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

i = (i + 1) % SIZE;

} while (i != (rear + 1) % SIZE);

printf("\n");

}

int main() {

int choice, element;

do {

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

printf("Enter your choice: ");

scanf("%d", &choice);

switch (choice) {

case 1:

printf("Enter the element to insert: ");

scanf("%d", &element);

cir\_enqueue(element);

break;

case 2:

cir\_dequeue();

break;

case 3:

display();

break;

case 4:

printf("Exiting the program.\n");

break;

default:

printf("Invalid choice. Please try again.\n");

}

} while (choice != 4);

return 0;

}