**Implementation of linear queue**

//code

#include <stdio.h>

#include <stdlib.h>

#define MAX 10

int queue[MAX];

int front = -1, rear = -1, deleted;

void insert(int );

void del(int\* );

void display();

int main() {

int i, choice, item;

while(1) {

printf("\n\* 1. INSERT ");

printf("\n\* 2. DELETE ");

printf("\n\* 3. DISPLAY ");

printf("\n\* 4. EXIT ");

printf("\nEnter your choice : ");

scanf("%d", &item);

switch(item) {

case 1:

printf("\nEnter element to insert : ");

scanf("%d", &item);

insert(item);

break;

case 2:

del(&deleted);

printf("\nDeleted element is : %d", deleted);

break;

case 3:

display();

break;

case 4:

printf("\*\*\*\*END\*\*\*\*");

exit(1);

default:

printf("\nInvalid input");

}

}

}

void insert(int item) {

if (rear == MAX-1) {

printf("\nQUEUE OVERFLOW");

return;

}

if (front == -1) {

front++;

}

rear++;

queue[rear] = item;

}

void del(int\* deleted) {

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

printf("\nQUEUE UNDERFLOW");

return;

}

\*deleted = queue[front];

front++;

}

void display() {

int i;

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

printf("\nQUEUE UNDERFLOW");

return;

}

printf("Elements of queue are : ");

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

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

}

}

//output



