**…Implementation of Queue using Linked list…**

#include <stdio.h>

#include <stdlib.h>

// Structure to create a node with data and the next pointer

struct node {

int data;

struct node \* next;

};

struct node \* front = NULL;

struct node \* rear = NULL;

// Enqueue() operation on a queue

void enqueue(int value) {

struct node \* ptr;

ptr = (struct node \* ) malloc(sizeof(struct node));

ptr-> data = value;

ptr-> next = NULL;

if ((front == NULL) && (rear == NULL)) {

front = rear = ptr;

} else {

rear->next = ptr;

rear=ptr;

}

printf("Node is Inserted\n\n");

}

// Dequeue() operation on a queue

int dequeue() {

if (front == NULL) {

printf("\nUnderflow\n");

return -1;

} else {

struct node \* temp = front;

int temp\_data = front-> data;

front = front-> next;

free(temp);

return temp\_data;

}

}

// Display all elements of the queue

void display() {

struct node \* temp;

if ((front == NULL) && (rear == NULL)) {

printf("\nQueue is Empty\n");

} else {

printf("The queue is \n");

temp = front;

while (temp) {

printf("%d--->", temp-> data);

temp = temp-> next;

}

printf("NULL\n\n");

}

}

int main() {

int choice, value;

printf("\nImplementation of Queue using Linked List\n");

while (choice != 4) {

printf("1.Enqueue\n2.Dequeue\n3.Display\n4.Exit\n");

printf("\nEnter your choice : ");

scanf("%d", & choice);

switch (choice) {

case 1:

printf("\nEnter the value to insert: ");

scanf("%d", & value);

enqueue(value);

break;

case 2:

printf("Popped element is :%d\n", dequeue());

break;

case 3:

display();

break;

case 4:

exit(0);

break;

default:

printf("\nWrong Choice\n");

}

}

return 0;

}