DSA Lab Assignment 11

**Name : SHUBHRADEEP MAITY**

**Branch : CSE**

**SEC : A**

**Class Roll :14**

CODE ::

#include<stdio.h> #include<stdlib.h> struct node

{

int data; struct node \*next;

};

struct node \*front; struct node \*rear; void insert(); void delete(); void display();

void main ()

{

int choice;

while(choice != 4)

{

printf("\n1.insert an element\n2.Delete an element\n3.Display the queue\n4.Exit\n"); printf("\nEnter your choice :"); scanf("%d",& choice);

switch(choice)

{

case 1: insert(); break; case 2: delete(); break; case 3: display(); break; case 4: exit(0); break; default: printf("\nEnter valid choice??\n");

}

}

}

void insert()

{

struct node \*ptr; int item;

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

{

printf("\nOVERFLOW\n"); return;

}

else

{

printf("\nEnter value?\n"); scanf("%d",&item); ptr -> data = item;

if(front == NULL)

{

front = ptr; rear = ptr; front -> next = NULL;

rear -> next = NULL;

}

else

{

rear -> next = ptr; rear = ptr; rear->next = NULL;

}

}

}

void delete ()

{

struct node \*ptr;

if(front == NULL)

{

printf("\nUNDERFLOW\n"); return;

}

else

{

ptr = front; front = front -> next;

free(ptr);

}

}

void display()

{

struct node \*ptr; ptr = front;

if(front == NULL)

{

printf("\nEmpty queue\n");

}

else

{ printf("\nprinting values .....\n");

while(ptr != NULL)

{

printf("\n%d\n",ptr -> data);

ptr = ptr -> next;

}

}

}

OUTPUT

