DAY 7 ASSIGNEMENT

QUESTION-01

Write a program to implement Circular Queue

# include<iostream.h>

# incelude<conio.h>

# include<process.h>

# define MAX 5

int cq[5];

int front=-1;

int rear=-1;

void cqinsert();

void cqdelete();

void cqdisplay();

void main()

{

int ch;

clrscr();

while(1)

{

printf("\n 1.cqinsert");

printf("\n 2.cqdelete");

printf("\n 3.cqdisplay");

printf("\n 4.exit");

printf("\n Enter your choice");

scanf("%d",&ch);

switch(ch)

{

case-1:cqinsert();break;

case-2:cqdelete():break;

case-3:cqdisplay();break;

case-4:exit(0);

deafult:printf("\n invalid choice");

}

}

}

void cqinsert()

{

int ele;

if(((front==0)&&(rear==MAX-1))||(rear==front-1))

printf("\n cqueue is full");

else

{

printf("\n enter element to insert:");

scanf("%d",&ele);

if(rear==MAX-1)

rear=0;

else

if(rear==-1)

{

front=0;

rear=0;

}

else

rear++;

cq[rear]=ele;

}

}

void cqdelete()

{

if(front==-1)

printf("\n circular queue is empty");

else

{

printf("\n deleted element=%d",cq[front]);

if(front==rear)

{

front=-1;

rear=-1;

}

else

if(front==MAX-1)

front=0;

else

front++;

}

}

void cqdisplay()

{

int i;

if(front==-1)

printf("\n circular queue is empty");

else

{

printf("\n front->")

if(front<=rear)

{

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

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

}

else

{

for(i=front;i<=MAX-1;i++)

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

for(i=0;i<=rear;i++)

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

}

printf("<-rear");

}

}