***PROGRAM:***

#include <stdio.h>

#define MAX 5

void insert();

int del();

int queue[MAX],rear=0,front=0;

void display();

int main()

{

int choice,token;

do

{

printf("\n ARRAY IMPLEMENTATION OF QUEUE ADT");

printf("\n1.insert");

printf("\n2.Delete");

printf("\n3.Show or display");

printf("\n4.Exit");

printf("\n Enter your choice for operation :");

scanf("%d",&choice);

switch(choice)

{

case 1:

insert();

display();

break;

case 2:

token = del();

printf("\n The token deleted is : %d",token);

display();

break;

case 3:

display();

break;

case 4:

exit(0);

break;

default:

printf("\nWrong choice");

break;

}

}while(choice<5);

}

void display()

{

int i;

printf("\n The queue elements are :\nFRONT->");

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

{

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

}

printf("->REAR");

}

void insert()

{

int token;

if(rear==MAX)

{

printf("\nQUEUE FULL");

return;

}

printf("\n Enter the token to be inserted :");

scanf("%d",&token);

queue[front]=token;

front=front+1;

}

int del()

{

int t;

if(front==rear)

{

printf("\n queue empty");

return 0;

}

rear =rear=1;

t=queue[rear-1];

return t;

}

***OUTPUT:***

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