Practical 21

/\*Program to illustrate Queue by array impletation \*/#include<iostream.h>#include<conio.h>

#include<process.h>

#define MAX 100

int Queue[MAX];

int front,rear;

void add(int Queue[], int val, int &rear);

void add(int Queue[], int val, int &rear)

{

if(rear==MAX)

cout<<"Queue Full";

else

{

rear=rear+1;

Queue[rear]=val;

}

}

int Delete(int Queue[],int &front,int rear);

int Delete(int Queue[],int &front,int rear)

{

int val;

if(front==rear)

cout<<"Empty Queue";

else

{

front=front+1;

val=Queue[front];

}

return val;

}

void display(int Queue[],int front,int rear);

void display(int Queue[],int front,int rear)

{

if(front==rear)

cout<<"Queue Empty";

cout<<"The queue values are : ";

do{

front=front+1;

cout<<Queue[front]<<" ";

}while(front!=rear);

}

void main()

{

int choice,val;

char ans='y';

rear=-1;

front=-1;

clrscr();

do{

cout<<"\nMainMenu\n";

cout<<"\n1.Add to Queue.\n";

cout<<"\n2.Deletion from Queue.\n";

cout<<"\n3.Traverse the Queue.\n";

cout<<"\n4.Exit";

cout<<"Enter your choice: ";

cin>>choice;

switch(choice)

{

case 1:

do{

cout<<"Enter the value : ";

cin>>val;

add(Queue,val,rear);

cout<<"Do you want to add more elements??(y/n)";

cin>>ans;

}while(ans=='y');

break;

case 2:

ans='y';

do{

val=Delete(Queue,front,rear);

if(val!=-1)

cout<<"Value deleted is: "<<val;

cout<<"Do you want to delete more values?(y/n)";

cin>>ans;

}while(ans=='y');

break;

case 3:

display(Queue,front,rear);

break;

case 4:

exit(0);

}

}while(choice!=4);

}

Output:







