2. WAP to Simulate the working of genre of integers using an array. Provide following operations.

@ Insert @ Debte @ Display

The program should print appropriate menages for genre empty & genre overflow conditions.

> ## include < stdio h>

include < Conio. h>

define Max 10 II changing this value will change length of array.

int gence [max); int front = -1, near = -1; void insert (void); int delete element (void);

int peck (void);

AB+OD+

void display (void);

int option, val;

prints ("\n\n ** * MAIN MENU ***);

prints ("\n 1. Insert an element");

prints ("\n 2. Delete an element");

prints ("\n 3. Peek");

prints ("\n 4. Display the greere");

prints ("\n 5. EXIT");

prints ("\n Enter your option: ");

Scant ("'\d", & option);

Suitch (option) !

cases:

```
val = delete_element();
        Case 2;
          if (val != -1)
          printy ("in The number deleted is:
               %d", val);
           break;
         Case 3:
            val = peck ();
            if (val != 1)
             points ("In The first value in queue is: "6d", val);
         Case 4:
              display ();
              break;
     I while (option != 5);
     getch ();
      return 0;
void insert () {
    int num;
     points ("In Enter the number to be insented
     in the genere: ");
     scanf ("./.d", & num);
     if (rean == MAX-1)
      prints (" n Overflow");
       clse if ( front == -1 & & rear == -1)
       front = rear = 0;
       near ++;
       querie [near] = rum
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Date __ /_ /
                                   Page -
      int i=0, j=0;
      chor timp;
      strupy (tanget, "");
       while (source [i]! = "10") {
             if (sowice to == "() (
                   push (st, sowice [i]);
             else if (sowieti) == ")") &
                while (Ctop! = -1) && (St Ctop) ! = (1))(
                     target (j) = pop(st);
                if (top == -1) {
                points (" in Ancôbuct Expussions);
               tump = pop(st);
           else if (isdigit (source [i])) II isalpha (ona
                target [j] = Source [i];
          else if (source [i] == "+" Il source [i] == "-
          1 Source [i] == "x" | source [i] == "p"]
                  Source Dis == "/6") (
               while ((top != -1) 88 ( $$ [ top] != "())
& ( get Bridgity (st [top)) > get Priority (source [1]))
                 larget [j] = pop(8+);
```

```
Date_/_/_
                             push (st, source (1));
                          private ("In Incorrect element In Expression
                          exit(1);
                   while (Ctop !=1) && (st [top) != (()) !
1=(0))
                          target [] = pop(s+);
                     tanget [] = 10";
russion »);
                 int get Bridity (chan op) 1
                     if (ob == = 1, 11 ob == ex, 11 ob == e10,)
                          netwoon 1;
                     else if (op == =+ 11 op == = -)
                          return 0;
alpha Conor
                  void push (chan st[], chan val) [
                        if (top == MAX-1)

points ("In Stack Overflow");
else (
                            topt;
                           St[top] = val;
- [1] = = -- 3
                   chan pop (chan st[]) {
0] = (()
                         chan val = ";
wice[i])){
                          if (top ==-1)
                                  points ("In Stack underflow");
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	Date/_
	Page
-	WAP to Simulate the working of a circular general
3	of integers using an array. Provide the
	of interprete serving
	forming approximate a Qualous
	The program should print appropriate message
	the program should conditions
	to deren subty & deare overflow conditions
	# include < 3tdio.h>
	It define MAX 10 "
	int awar [max]:
	int querie [max]; int pront = -1;
	void insent (void);
	int delete-element (void);
	int peak (void);
	void duplay (void);
	int main () {
	int option, val;
	christ ()
	dot
	prints ("In *** MAIN MENU***);
	· prints ("101. Insert an element");
	prints ("In a. Delite an element");
	points ("In s. peck");
	prints ("In 4. Display the gener");
+	prints ("In 5. exit");
	prints ("In Enter your option:");
	Scamp (" Y.d", & option);
	Switch (option) 1
	case 1:
	insert (2)

bruak;

```
Page_
         Case 2:
             val = delete element ();
               prints ("In the not delited is ited,
            brunk:
        Care 3:
          val = peek ();
           if (val! = -1)
             prints (" In The first value in queue
                is: 1/d", val);
         break;
      Case 4:
           display ();
          bruak;
 's while (option != 5);
  gotch ();
   neturn 0;
void insert () {
 int num;
printy ("In Enter may, to be inserted in the
   Scaref ("/d", fourn);
if ( front == 0, & & man == MAX-1)
   else if (front == -1 8 % recor == -1) {
          pront = near = 0;
           quere [near] = num;
```

```
Date /
    else if ( near == max -1 && front !=0) (
         911001 = 0;
        genere [man] = mum;
    else 1
       man ++;
       queru [mean] = mum;
 int deleter element () {
       unt val;
       if (front == -1 && near == -1)
          prints (" in underflow");
        neturn -1;
      else val = quire [front];
             front = nean = -1
           if (front == max-1)
                 front it;
     return val;
int peck () ?
     (Gront == -1 If near == -1) f
       prints ("In Queue is Empty");
        getwin -1;
         return greene Gront);
```

Date _/_/ void display () (points ("10"); if (front == -1 & 8 near == -1) else ! [" o Quint " Empty"); if (front < near) (Bor Ci = front; I < = seen; 1++)
poriort (" \t " d", generalis); else & for (1= front; i < max; i++) print [" It 1.d", querce []); for (1 =0 ; i < = man; 1++)

print ("1+ 1/2 d", gierre [1]); trilput ... ** * MAIN MENU + * * 1: Insert an dement 2. Delete an eliment 3. Peek 4. Display the gene 5. Enalt Enter your option: 1 Enter moj, to be inserted in glieve; 35 Enter you option: 2. Enten noj. to be delite : 25 Enter your option: 3 Queue is Empty