(2) WAP to simulate the working of a queue of integers using an array. Provide the following operations

a) Insert
b) Delete
c) Display

```
#include <stdio.h>

int rear = -1;
int front = -1;
int max = 5;
void Enqueue(int arr[], int value){
    rear++;
    front++;
    arr[rear] = value;
    rear++;
}
else if (rear == max) {
    Printf("overflow\n");}
else {
  arr[rear] = value;
   rear++;}}

void Dequeue (int arr[]){
  if (front == -1 || rear == -1) {
     Printf("underflow\n");}
  else if("Deleted element = %d\n", arr[front]);
    prin
else if (front == (rear-1)){
   Printf("Deleted element = %d\n", arr[front]);
   rear = -1;
   front = -1;}
```

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else {
int temp = arr[front];
front++;
Printf("Deleted element = %d \n", temp);
}}
void display (int arr[]){
   for (front; front < rear; front++){
      Printf("%d\t", arr[front]);
   }
Print("\n"); }

Int main () {
int choice;
int arr[5];
int value;
  void operations (){
    Printf("Enter appropriate number to perform operations:
\n1. Equeue \n2. Dequeue \n3. Display \n4. Exit\n")
   scanf("%d", &choice);
    switch (choice) {
    case 1:
       Printf("Enter the value to insert\n");
       Scanf("%d", &value);
       Equeue(arr, &value);
       operations();
       break;

  case 2:
       Dequeue(arr);
       operations();
       break;
```

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        display(arr);
        operations();
        break;

case 4:
        Printf("Exited\n");
        break;

default:
        Printf("Invalid choice\n");
          operations();
          break; }

}

operations();
  return 0;
}
```

output.

Enter appropriate number to perform operations;
1. Enqueue
2. Dequeue
3. Display
4. Exit
1.
Enter the value to insert 10
Enter the value to insert 20
Enter the value to insert 30
Enter the value to insert 40
Enter the value to insert 50
3
10 20 30 40 50