circular queue

```
# include <Stdio.h>
#define 5
int front=-1, rear=-1, q[MAX];
void enqueue (int value){
    if(front==-1 && rear==-1){
        front=0;
        rear=0;
        q[rear]=value;
    }else if (rear+1)%N== front){
        printf ('Overflow');
    }else{
        rear=(rear+1)%N;
        q[rear] = value;
    }}
 void dequeue() {
    if (front==-1) {
        printf ('Underflow");
    if (front= rear = -1);
  }else {
      printf ("%d", q[front])
      front = (front +1) %N; }}
void display(){
  if (front==-1){
      printf("Underflow");
}else{ int i = front;
  While(i<=rear);
      printf ("%d", q[i]);
      i=(i+1)%N;
  }}
```

```
int main(){
    int boolean = 1, choice, value;
    while (boolean){
    printf("1. Enqueue\n 2. Dequeue\n 3. Display \n 4. Exit");
     scanf("%d", & choice);
     switch(choice){
      case 1: printf ("Enter the value");
              scanf ("%d", & value);
              break;
     case 2: dequeue (); break;
     case 3: display (); break;
     case 4: boolean = 0 ; break;
     default: printf("Invalid "); break;
     }}}
```

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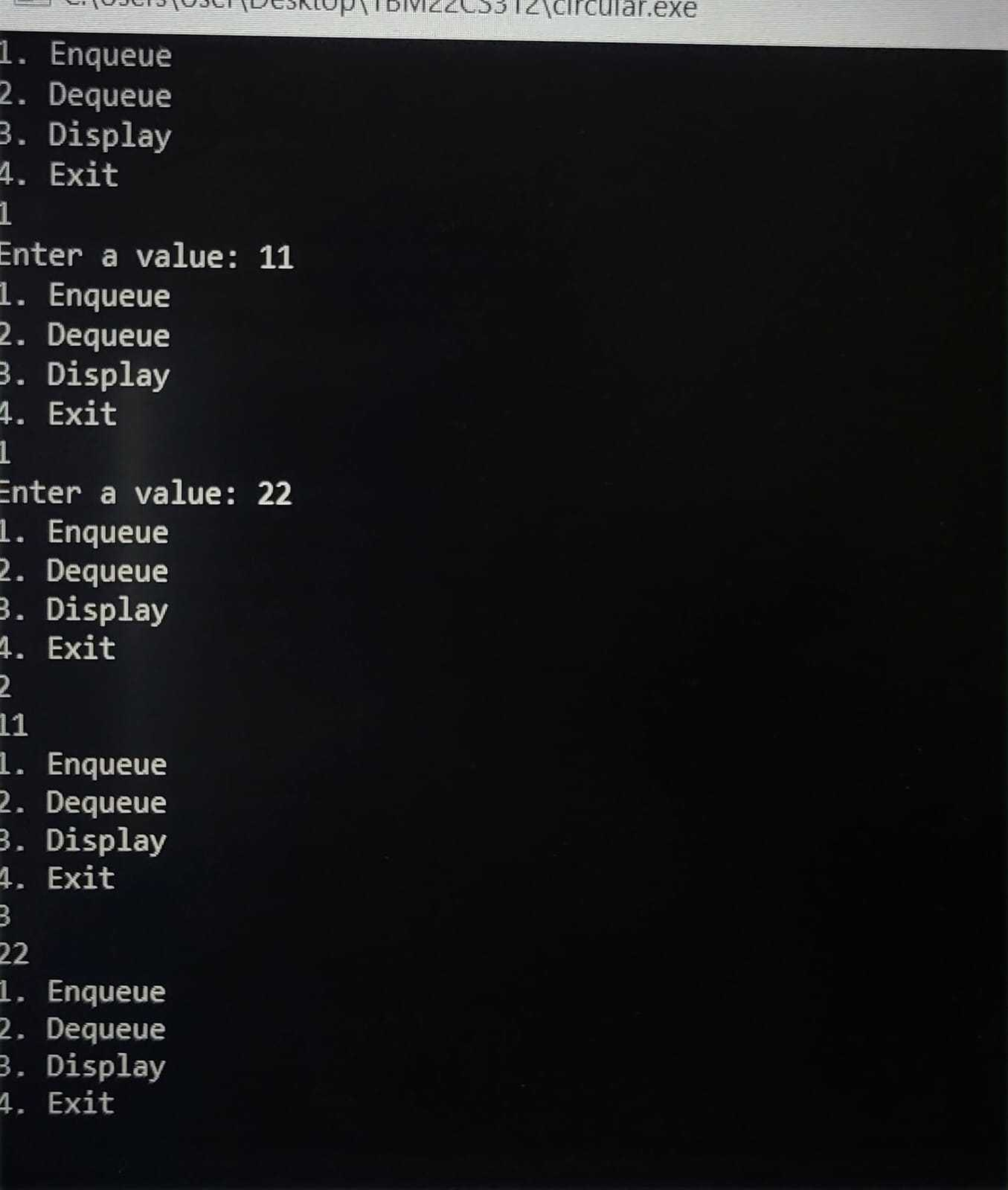
```
Output: 1. Enqueue
         2. Dequeue
        3. Display
        4. Exit
        1
        Enter a value: 22
        1. Enqueue
        2. Dequeue
        3. Display
        4. Exit
        3
        22
```



```
1. Enqueue
2. Dequeue
3. Display
4. Exit
1
Enter a value: 11
1. Enqueue
2. Dequeue
3. Display
4. Exit
1
Enter a value: 22
1. Enqueue
2. Dequeue
3. Display
4. Exit
2
11
1. Enqueue
2. Dequeue
3. Display
4. Exit
3
22
1. Enqueue
2. Dequeue
3. Display
4. Exit
```