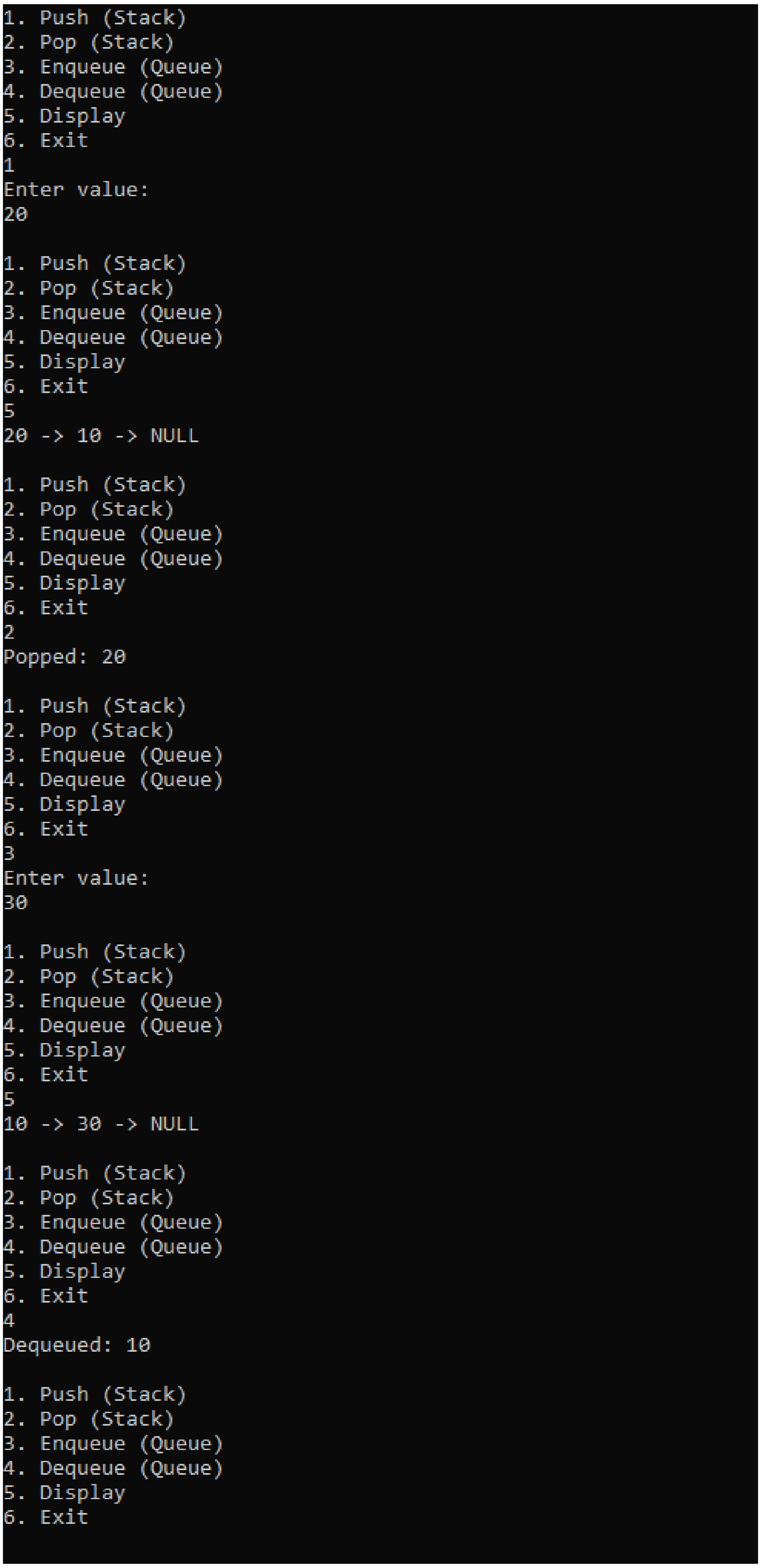
```
#include <stdio.h>
#include <stdlib.h>

struct Node {
   int data;
   struct Node* next;
};

struct Node* head = NULL;

void push(int value) {
   struct Node* newNode = (struct Node*)malloc(sizeof(struct Node));
   newNode->data = value;
   newNode->next = head;
   head = newNode;
}

int pop() {
   if (head == NULL) return -1;
   struct Node* temp = head;
   int val = temp->data;
   head = head->next;
   free(temp);
   return val;
}

void enqueue(int value) {
   struct Node* newNode = (struct Node*)malloc(sizeof(struct Node));
   newNode->data = value;
   newNode->next = NULL;

   if (head == NULL) {
      head = newNode;
      return;
   }

   struct Node* temp = head;
   while (temp->next != NULL)
      temp = temp->next;
   temp->next = newNode;
}

int dequeue() {
   if (head == NULL) return -1;
   struct Node* temp = head;
   int val = temp->data;
   head = head->next;
   free(temp);
   return val;
}
```

```
void display() {
    struct Node* temp = head;
    while (temp != NULL) {
        printf("%d -> ", temp->data);
        temp = temp->next;
    }
    printf("NULL\n");
}

int main() {
    int choice, value;

    while (1) {
        printf("\n1. Push (Stack)\n2. Pop (Stack)\n3. Enqueue (Queue)\n4. Dequeue (Queue)\n5.
Display\n6. Exit\n");
        scanf("%d", &choice);

        switch (choice) {
            case 1:
                printf("Enter value:\n");
                scanf("%d", &value);
                push(value);
                break;

            case 2:
                value = pop();
                if (value == -1) printf("Stack Empty\n");
                else printf("Popped: %d\n", value);
                break;

            case 3:
                printf("Enter value:\n");
                scanf("%d", &value);
                enqueue(value);
                break;

            case 4:
                value = dequeue();
                if (value == -1) printf("Queue Empty\n");
                else printf("Dequeued: %d\n", value);
                break;

            case 5:
                display();
                break;

            case 6:
                return 0;
        }
    }
}
```



```
1. Push (Stack)
2. Pop (Stack)
3. Enqueue (Queue)
4. Dequeue (Queue)
5. Display
6. Exit
1
Enter value:
20

1. Push (Stack)
2. Pop (Stack)
3. Enqueue (Queue)
4. Dequeue (Queue)
5. Display
6. Exit
5
20 -> 10 -> NULL

1. Push (Stack)
2. Pop (Stack)
3. Enqueue (Queue)
4. Dequeue (Queue)
5. Display
6. Exit
2
Popped: 20

1. Push (Stack)
2. Pop (Stack)
3. Enqueue (Queue)
4. Dequeue (Queue)
5. Display
6. Exit
3
Enter value:
30

1. Push (Stack)
2. Pop (Stack)
3. Enqueue (Queue)
4. Dequeue (Queue)
5. Display
6. Exit
5
10 -> 30 -> NULL

1. Push (Stack)
2. Pop (Stack)
3. Enqueue (Queue)
4. Dequeue (Queue)
5. Display
6. Exit
4
Dequeued: 10

1. Push (Stack)
2. Pop (Stack)
3. Enqueue (Queue)
4. Dequeue (Queue)
5. Display
6. Exit
```

v