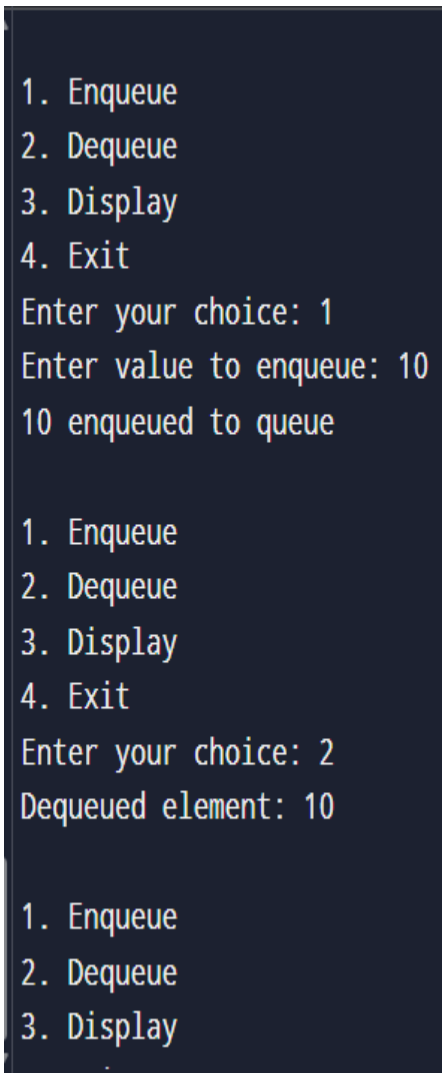
Code

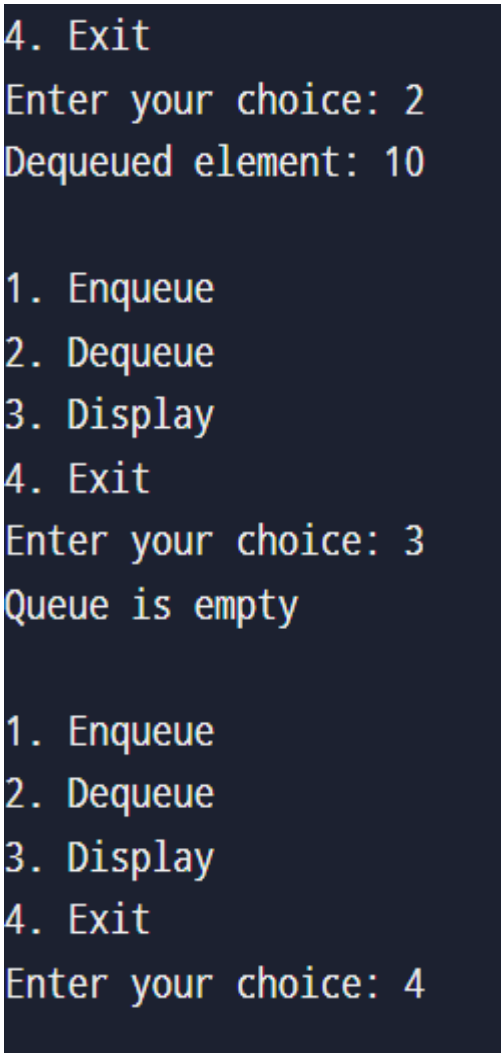
```
#include <stdio.h>
#define SIZE 100
int s1[SIZE], s2[SIZE];
int top1 = -1, top2 = -1;
void push1(int x) {
   if (top1 == SIZE - 1)
      printf("Stack1 Overflow\n");
   else
      s1[++top1] = x;
}
void push2(int x) {
   if (top2 == SIZE - 1)
      printf("Stack2 Overflow\n");
   else
      s2[++top2] = x;
}
int pop1() {
   if (top1 == -1)
      return -1;
   else
      return s1[top1--];
}
int pop2() {
   if (top2 == -1)
      return -1;
   else
      return s2[top2--];
}
void enqueue(int x) {
```

```
    push1(x);
    printf("%d enqueued to queue\n", x);
}
void dequeue() {
    int x;
    if (top1 == -1 && top2 == -1) {
        printf("Queue is empty\n");
        return;
    }
    if (top2 == -1) {
        while (top1 != -1) {
            x = pop1();
            push2(x);
        }
    }
    x = pop2();
    printf("Dequeued element: %d\n", x);
}
void display() {
    if (top1 == -1 && top2 == -1) {
        printf("Queue is empty\n");
        return;
    }
    printf("Queue elements: ");
    for (int i = top2; i >= 0; i--)
        printf("%d ", s2[i]);

    for (int i = 0; i <= top1; i++)
        printf("%d ", s1[i]);
    printf("\n");
```

```
}
int main() {
    int choice, value;

    while (1) {
        printf("\n1. Enqueue\n2. Dequeue\n3. Display\n4. Exit\nEnter your choice: ");
        scanf("%d", &choice);
        switch (choice) {
        case 1:
            printf("Enter value to enqueue: ");
            scanf("%d", &value);
            enqueue(value);
            break;
        case 2:
            dequeue();
            break;

        case 3:
            display();
            break;

        case 4:
            return 0;

        default:
            printf("Invalid Choice\n");
        }
    }
}
```

Output


1. Enqueue
2. Dequeue
3. Display
4. Exit
Enter your choice: 1
Enter value to enqueue: 10
10 enqueued to queue
1. Enqueue
2. Dequeue
3. Display
4. Exit
Enter your choice: 2
Dequeued element: 10
1. Enqueue
2. Dequeue
3. Display


4. Exit
Enter your choice: 2
Dequeued element: 10
1. Enqueue
2. Dequeue
3. Display
4. Exit
Enter your choice: 3
Queue is empty
1. Enqueue
2. Dequeue
3. Display
4. Exit
Enter your choice: 4