Practical No – 5

Pra5 Implement a Stack and perform the stack operations: Push, Pop and Print using Menu Driver Program such as 1.Push, 2.Pop and 3. Print and 4. Exit.

```
#include <stdio.h>

#define MAX 10
int stack[MAX];
int top = -1;

void push() {
    int value;
    if (top == MAX - 1) {
        printf("Stack Overflow!\n");
    }
    else {
        printf("Enter an Element to add: ");
        top++;
```

```
        scanf("%d", &stack[top]);
    }
}

void pop() {
    if (top == -1) {
        printf("Stack Underflow!\n");
    }
    else {
        top--;
    }
}

void print() {
    if (top == -1) {
        printf("Stack is empty!\n");
    }
    else {
        printf("Stack elements are: ");
        for (int i = top; i > -1; i--) {
            printf("%d ", stack[i]);
        }
```

```
        printf("\n");
    }
}

void main() {
    int cases;

    do {
        printf("\nMenu:\n");
        printf("1. Push\n");
        printf("2. Pop\n");
        printf("3. Print \n");
        printf("4. Exit\n");
        printf("Enter your choice: ");
        scanf("%d", &cases);

        switch (cases) {
            case 1:
                push();
                break;
            case 2:
                pop();
```

```
            break;
        case 3:
            print();
            break;
        case 4:
            printf("Exiting program.\n");
            break;
        default:
            printf("Invalid choice! Please try again.\n");
    }
  } while (cases != 4);
}
```