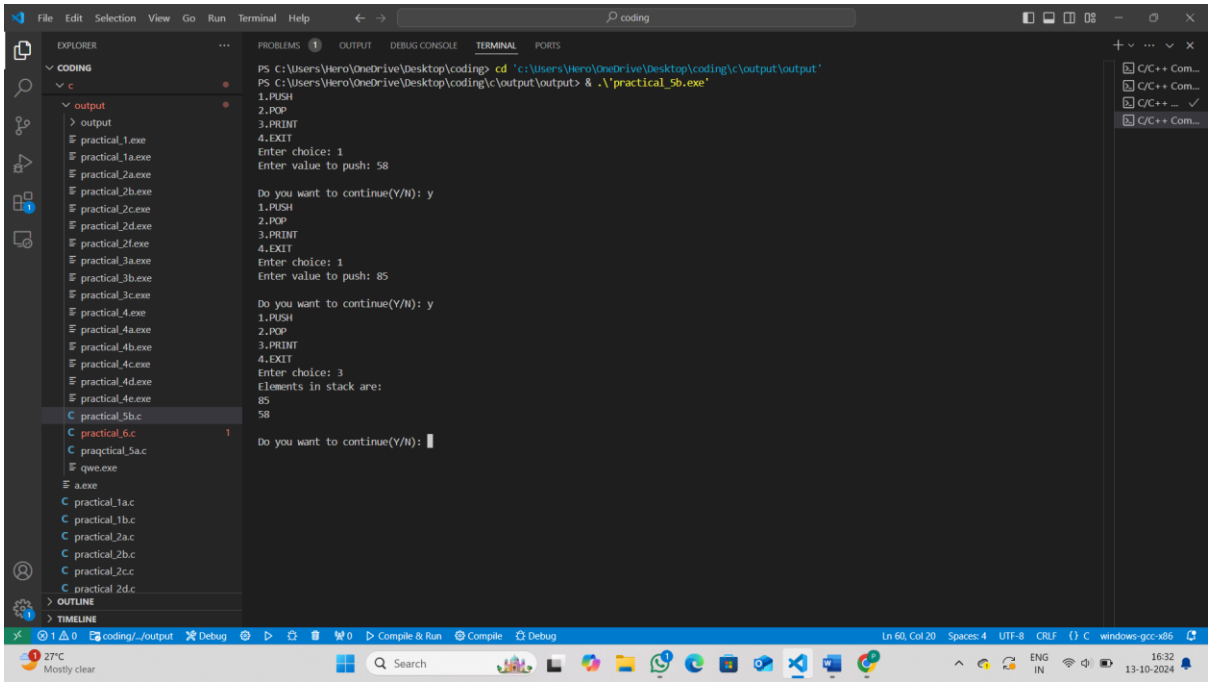
Practical 5 B

Pra5B Implement a Stack using linked list 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>
#include <stdlib.h>

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

struct Node* top = NULL;

void menu() {
    printf("1.PUSH\n2.POP\n3.PRINT\n4.EXIT\n");
}

void PUSH() {
    struct Node* newNode = (struct Node*)malloc(sizeof(struct Node));
    if (!newNode) {
        printf("Stack Overflow\n");
        return;
    }
    printf("Enter value to push: ");
    scanf("%d", &newNode->data);
    newNode->next = top;
```

```
    top = newNode;
}

void POP() {
    if (top == NULL) {
        printf("Stack Underflow\n");
        return;
    }
    struct Node* temp = top;
    printf("Pop element: %d\n", top->data);
    top = top->next;
    free(temp);
}

void PRINT() {
    if (top == NULL) {
        printf("No Element in Stack\n");
        return;
    }
    struct Node* temp = top;
    printf("Elements in stack are:\n");
    while (temp != NULL) {
        printf("%d \n", temp->data);
        temp = temp->next;
    }
}

int main() {
    char ch;
```

```
    do {
        menu();
        int choice;
        printf("Enter choice: ");
        scanf("%d", &choice);

        switch (choice) {
            case 1:
                PUSH();
                break;
            case 2:
                POP();
                break;
            case 3:
                PRINT();
                break;
            case 4:
                return 0;
            default:
                printf("Invalid Choice\n");
                break;
        }

        printf("\nDo you want to continue(Y/N): ");
        scanf(" %c", &ch);
    } while (ch == 'y' || ch == 'Y');
    return 0;
}
```


File Edit Selection View Go Run Terminal Help
coding
EXPLORER
CODING
c
output
output
practical_1.exe
practical_1a.exe
practical_2a.exe
practical_2b.exe
practical_2c.exe
practical_2d.exe
practical_2f.exe
practical_3a.exe
practical_3b.exe
practical_3c.exe
practical_4.exe
practical_4a.exe
practical_4b.exe
practical_4c.exe
practical_4d.exe
practical_4e.exe
practical_5b.c
practical_6.c
praqctical_5a.c
qwe.exe
a.exe
practical_1a.c
practical_1b.c
practical_2a.c
practical_2b.c
practical_2c.c
practical_2d.c
OUTLINE
TIMELINE
PROBLEMS 1
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
PS C:\Users\Hero\OneDrive\Desktop\coding> cd 'c:\Users\Hero\OneDrive\Desktop\coding\c\output\output'
PS C:\Users\Hero\OneDrive\Desktop\coding\c\output\output> & .\'practical_5b.exe'
1.PUSH
2.POP
3.PRINT
4.EXIT
Enter choice: 1
Enter value to push: 58
Do you want to continue(Y/N): y
1.PUSH
2.POP
3.PRINT
4.EXIT
Enter choice: 1
Enter value to push: 85
Do you want to continue(Y/N): y
1.PUSH
2.POP
3.PRINT
4.EXIT
Enter choice: 3
Elements in stack are:
85
58
Do you want to continue(Y/N):
C/C++ Com...
C/C++ Com...
C/C++ ...
C/C++ Com...
Compile & Run
Compile
Debug
Ln 60, Col 20
Spaces: 4
UTF-8
CRLF
C
windows-gcc-x86
27°C
Mostly clear
Search
ENG
IN
16:32
13-10-2024