

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

```
typedef struct StackNode
{
    char action;
    char character;
    struct StackNode* next;
} StackNode;
```

```
StackNode* createNode(char action, char character)
{
    StackNode* node =
(StackNode*)malloc(sizeof(StackNode));
    node->action = action;
    node->character = character;
    node->next = NULL;
    return node;
}
```

```
void push(StackNode** top, char action, char
character)
{
    StackNode* node = createNode(action, character);
    node->next = *top;
    *top = node;
}
```

```
void pop(StackNode** top)
```

```

{
    if (*top == NULL) return;
    StackNode* temp = *top;
    *top = (*top)->next;
    free(temp);
}

```

```

void undo(StackNode** top, char* text, int* length)
{
    if (*top == NULL) return;
    StackNode* node = *top;
    if (node->action == 'A')
    {
        text[--(*length)] = '\0';
    }
    else if (node->action == 'D')
    {
        text[(*length)++] = node->character;
        text[*length] = '\0';
    }
    pop(top);
}

```

```

int main()
{
    char text[1000] = "";
    int length = 0;
    StackNode* undoStack = NULL;

    char command;

```

```

char character;

while (1)
{
    printf("Enter command (A for add, U for undo,
Q for quit): ");
    scanf(" %c", &command);

    if (command == 'Q') break;

    if (command == 'A')
    {
        printf("Enter character to add: ");
        scanf(" %c", &character);
        push(&undoStack, 'A', character);
        text[length++] = character;
        text[length] = '\0';
    }
    else if (command == 'U')
    {
        undo(&undoStack, text, &length);
    }

    printf("Current text: %s\n", text);
}

return 0;
}

```