

```
/*--- paint.cpp ---*/  
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```

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

```
struct node{  
    char color[128];  
    node* next;  
};
```

```
node* paint(char* color, node* canvas);  
node* strip(node* canvas);  
void print_top(node* canvas);  
void delete_list(node* canvas);
```

```
int main() {  
    node* canvas = new node[1];  
    strcpy(canvas->color, "none");  
    char cmd[128];  
    char color[128];  
    while (1) {  
        print_top(canvas);  
  
        scanf(" %s", cmd);  
        if (strcmp(cmd, "strip") == 0) {  
            if (strcmp(canvas->color, "none") == 0) {  
                break;  
            }  
            canvas = strip(canvas);  
        }else if (strcmp(cmd, "paint") == 0) {  
            scanf(" %s", color);  
            canvas = paint(color, canvas);  
        }else break;  
    }  
  
    delete_list(canvas);  
  
    return 0;  
}
```

```
node* paint(char* color, node* canvas) {  
    node* temp = new node[1];  
    strcpy(temp->color, color);  
    temp->next = canvas;  
    return temp;  
}  
node* strip(node* canvas) {  
    return canvas->next;  
}
```

```
void print_top(node* canvas) {  
    if (strcmp(canvas->color, "none") == 0) {  
        printf("The canvas is blank.\n");  
    }else {  
        printf("The top color is %s.\n", canvas->color);  
    }  
}
```

```
void delete_list(node* canvas) {  
    if (canvas) {
```

```
        delete_list(canvas->next);  
        delete canvas;  
    }  
}
```