To-Do List Program in C

Abstract:

This document contains a simple C program designed to manage a to-do list. The program allows users to add tasks, mark tasks as completed, and view the list of tasks along with their completion status. The code demonstrates basic C programming concepts such as arrays, string manipulation, and loops. This program is a practical example for beginners to understand the basics of task management using a console-based interface.

```
#include <stdio.h>
#include <string.h>
#define MAX_TASKS 100
#define MAX_LENGTH 256

void addTask(char tasks[][MAX_LENGTH], int completed[], int *task_count) {
    char task[MAX_LENGTH];
    printf("Enter task: ");
    scanf("%s", task);
    strcpy(tasks[*task_count], task);
    completed[*task_count] = 0;
    (*task_count)++;
}

void markTaskAsCompleted(int completed[], int task_count) {
    int task_index;
    printf("Enter task index: ");
```

```
    scanf("%d", &task_index);
    completed[task_index] = 1;
}

void viewTasks(char tasks[][MAX_LENGTH], int completed[], int task_count) {
    for (int i = 0; i < task_count; i++) {
        printf("%d. %s [%s]\n", i, tasks[i], completed[i] ? "Completed" : "Incomplete");
    }
}

int main() {
    char tasks[MAX_TASKS][MAX_LENGTH];
    int completed[MAX_TASKS];
    int task_count = 0;

    while (1) {
        printf("1. Add task\n");
        printf("2. Mark task as completed\n");
        printf("3. View tasks\n");
        printf("4. Exit\n");
        printf("Enter your choice: ");
        int choice;
        scanf("%d", &choice);

        if (choice == 1) {
            addTask(tasks, completed, &task_count);
```

```
        } else if (choice == 2) {
            markTaskAsCompleted(completed, task_count);
        } else if (choice == 3) {
            viewTasks(tasks, completed, task_count);
        } else if (choice == 4) {
            break;
        }
    }

    return 0;
}
```

Output:

```
1. Add task
2. Mark task as completed
3. View tasks
4. Exit
Enter your choice: 1
Enter task: ppsRecord
1. Add task
2. Mark task as completed
3. View tasks
4. Exit
Enter your choice: 3
0. ppsRecord [Incomplete]
1. Add task
```

```
2. Mark task as completed

3. View tasks

4. Exit

Enter your choice: 2

Enter task index: 0

1. Add task

2. Mark task as completed

3. View tasks

4. Exit

Enter your choice: 3

0. ppsRecord [Completed]

1. Add task

2. Mark task as completed

3. View tasks

4. Exit

Enter your choice: 4
```