

Python Programing and Practice

# Goal Management Planner Program Development Progress Report

Progress Report : 2

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# 1. Introduction

## 1) Background

It is very difficult to manage yourself in a rapidly changing world. People write a to-do list or planner to manage themselves. But if they don't achieve what they have to do, they have to revise their plans, and it's very troublesome to do it. Many people get tired of the process and stop planning. If a program helps revise a plan, it will prevent people from giving up planning.

## 2) Project goal

It aims to help users achieve their goals more easily by developing planner programs with accumulation, delay, and recording capabilities.

## 3) Differences from existing programs

Compared to the existing programs, our programs focused on goal management. We focused on the ability to manage goals, such as recording, accumulating, and delaying achievements if not achieved.

# 2. Functional Requirement

## Function 1) Open a page, and then, open next page

- When you enter a specific command, update and open that page.
- When the command is 'esc', save the current data

## Function 2) Open a Today's Goal Page

- Open today's goal page.

## Function 3) Open a Main Goal Page

- open main goal page.

## Function 4) Date-based move to and output a goal list

- When you enter a specific command, go to that list and output the list.

### Detail 1) Go to and output today's list (default)

- Enter 'today' or today's date (default: this month) to output a to-do list for today.

Detail 2) Move to and output specific date lists

- Enter a specific date (default: this month) or "tomorrow" or "the day after tomorrow" to output a to-do list for that date.

Detail 3) Move to and output to the weekly list

- Description: Enter "This Week", "Next Week", or "First Week", "Second Week", etc. (default: This month) to output a to-do list for that week.

Detail 4) Move to and output to next

- Enter ' ' (space) to output a to-do list for the next week of the week list or the next date of the date list.

## Function 5) Move and output to goal-based list

Detail 1) Goals search-based moves and outputs

- When you enter a word or sentence, print out the number with the goals containing the word or sentence and follow Detailed function

Detail 2) Move to and output to the higher/sub goal list

- When you enter the goal number, print out a list of sub goals.
- If there is no sub-target of that goal, it creates and outputs a sub-goal list window.
- If there is one sub goal, press enter to output a list of sub goals.
- If you enter 0, it outputs a list of the top goals.

## Function 6) input a new goal

- If you enter '+', create a new goal input window.
- Year information is not entered in to-do information.
- It is possible to create overlapping subgoals.

Detail 1) input a new goal (default)

- If you enter '+', by default, create input window at the present window

and add the goal in the list.

#### Detail 2) input a new date-based goal

- If you enter '+' and type the goal with the date, a new goal is added to the goal list of the date.

#### Function 7) delete a goal

- If you enter '-' at the desired location of the list, start the Delete Goals window.- - If you enter the goal number, print out a window to confirm deletion of that goal. And delete the goal.

- Enter '-' again to exit(cancel) the goal delete window.

#### Function 8) Setting

##### 8-1) Higher Goal Settings

##### 8-2) Date, Term Settings

##### 8-3) Repeat Settings

- You can make Repeated settings of various functions.

##### Detail 1) Select a repetition period

- Set up what to do over and over again every few days and weeks.

##### Detail 2) Select a repetition the day of the week

- Set what days of the week you want to repeat what you want to do.

##### Detail 3) Repeat when you achieve your goals

- Set whether to repeat this again after achieving the goal.

##### 8-4) Goal Management(Important)

- You can quantify goals and record and manage them to achieve them.

##### Detail 1) Set goal Achievement

- Select 'Set goal Achievement' to set the final achievement of that goal.

##### Detail 2) Record goal Achievement

- If you select 'record' from that goal, you can record the amount of goals achieved today.

#### Detail 3) Accumulate goal Achievement

- If you record the amount of goals achieved today, it accumulates in the total amount achieved.

#### Detail 4) Connect and Delay goal Achievement

- Selecting 'delay' in that goal delays the targeted amount of linked goals in the future together. This prevents you from having to modify other goals one by one.

### Function 9) Help

- When you enter 'help', print out a window that explain the commands used in this program.

## 3. Progress

Function : Open main goal page, and move to the sub goal page, and add or delete a goal.

#### Function 1) Open a page, and the, open next page

- input : main goal page
- output : open the last page in 'opened pages' that contains pages which the user opened. And terminate the program.
- explanation :
  1. At the start of the program, open the main goal page and add it to the 'opened pages'.
  2. Update the last page of 'opened pages' using constructor, and open the page via 'open\_page()'.
  3. In the open\_page(), the pages of 'opened pages' are changed according to the user's input.
  4. When the user enters 'esc', the program is terminated after storing the target data in a file.

5. If the user does not end the program, repeat steps 2 and 3.

- Apply what I learned: using module, class, list method(append), list indexing, infinite loop(while), len function, conditional, control statement, constructor

- Code ScreenShot

Main.py

```
main.py > ...
1  from goal_py.class_goal import *
2  from page_py.class_page import *
3
4
5  if __name__ == '__main__':
6      # 프로그램 시작 : 첫번째 페이지를 열린 페이지에 추가
7      page = Page()
8      start_page = MainGoalPage()
9      page.opened_pages.append(start_page)
10     # 열려있는 페이지의 내용을 업데이트 후, 마지막 페이지를 실행, 반복
11     while True:
12         last_index = len(page.opened_pages) - 1
13         next_page = page.opened_pages[last_index]
14         next_page.update_page()
15         terminate = next_page.open_page()
16         # 종료 메시지 입력시 현재까지 수정된 데이터 저장 후 프로그램 종료
17         if terminate == True:
18             write_data_file(GoalField().data)
19             write_contents_file(GoalField().contents)
20             break
21
22     # 페이지 내용 업데이트
23     def update_page(self):
24         self.__init__(self.title, self.menu_list)
```

Function 5) Move to and output to the higher/sub goal list

- input : goal data field, goal content field, goal to open

- output : print goal page, add next page to 'opened pages' or back to previous page or return terminate message(true).

- explanation

1. Initialize the goal, create sub goal list, and sub goal content list with input goal.
2. print the basic menu, and sub goal menu. And then input a command from the user.
3. Add a page according to the input in 'opened pages'. Then, 'main.py' will update the page and open the page.
4. When '+' is entered, Add 'Add Goal Page' that creates a new sub goal of the current title goal.
5. When '-' is entered, Add 'Delete Goal Page' that delete a sub goal that the user wants to delete.

- input : root goal(Goal() class), goal field(including data, contents), (goal level),

input menu

- output : print main goal page, open a page or terminate program according to a command

- explanation :

1. Create main goals list by entering the root goal(Goal()) into

‘GoalPage().\_\_init\_\_()’ and delete the first item of main goals list because it is the root goal(Goal()).

2. the ‘open\_page()’ method is almost identical to the GoalPage()’s excluding command ‘enter’, and ‘o’.

3. When ‘enter’ is entered, print message ‘there is no goal information’.

4. When 0 is entered, open a new today’s goal page.

- Apply what I learned: ‘del’ function, inheritance, overriding

- Code ScreenShot

MainGoalPage()

```
102 class MainGoalPage(GoalPage):
103     def __init__(self):
104         self.goal = Goal()
105         super().__init__(self.goal)
106         del self.sub_goal_list[0]
107         del self.menu_list[0]
108         #main_goal_list = [goal for goal in GoalField().data if goal.get_level() == 0]
109         #main_goal_contents = [goal.get_content() for goal in main_goal_list]
110         self.basic_menu[4] = '0. 오늘 목표표 전환'
111     def update_page(self):
112         self.__init__()
113
114     def open_page(self):
115         self.print_page()
116         command = input()
117         if(command == ''):
118             print('서브 내용이 없습니다.')
119         elif(command == '+'):
120             next_page = AddGoalPage(self.goal)
121             self.in_opened_pages(next_page)
122         elif(command == '-'):
123             next_page = DeleteGoalPage(self.goal)
124             self.in_opened_pages(next_page)
125             # 0 입력시 오늘 목표표 페이지로 전환
126         elif(command == '0'):
127             pass #next_page = TodayGoalPage()
128         elif(command == '-1'):
129             self.delete_page()
130         elif(command == 'esc'):
131             terminate = True
132             return terminate
133         # 1 이상과 영수를 입력했을 경우 해당 목표표 페이지 열기
134         else:
135             try:
136                 int_command = int(command)
137             except:
138                 pass
139             else:
140                 if (0 < int_command and int_command <= len(self.menu_list)):
141                     selected_goal = self.sub_goal_list[int_command - 1]
142                     next_page = GoalPage(selected_goal)
143                     self.in_opened_pages(next_page)
144                     return False
145                 print('잘못 입력하셨습니다.')
146         terminate = False
147         return terminate
```

Function 6) input a new goal

- input : current title goal, goal data field, goal content field, input menu



- output : create a new sub goal of the current title goal.

- explanation :

1. Initialize data : Delete unusing basic menu. If the title goal is main goal(= root goal(Goal())), delete the first item of sub goal list, and menu list.

2. The 'open\_page()' method is almost identical to the GoalPage()'s.

3. When the user types the content

3-1. If a sub goal does not exist, a new goal is created with '01' added to the goal number to the index following the current goal.

3-2. If a sub goal exist, a new goal is created with an increase of 1 of the goal number in the index following the last sub-goal.

4. Then, repeat opening AddGoalPage again until the user input '-1', '0', 'esc'.

- Apply what I learned: 'del' function, inheritance, overriding, dictionary, list : add item to the index or key

- Code ScreenShot

```
148 # 목표 추가, 삭제 페이지
149 class EditGoalPage(GoalPage):
150     def __init__(self, goal):
151         super().__init__(goal)
152         # 이 조건은 왜 self.goal == Goal()이 안되는 건지?
153         # 메인 목표 페이지에서 실행시 첫 하위 목표(메인 목표를 나타내는 목표) 삭제
154         if self.goal.goal_number == Goal().goal_number:
155             del self.sub_goal_list[0]
156             del self.menu_list[0]
157             # 기본 메뉴 : -1, 0, 7, esc
158             for i in range(0,3):
159                 del self.basic_menu[i]
160             # 페이지 업데이트
161         def update_page(self):
162             self.__init__(self.goal)
163             # 편집 제목 출력 + 페이지 출력
164         def print_page(self, edit_title):
165             self.title = edit_title + '\n\n' + self.title
166             super().print_page()
167
168 # 목표 추가 페이지
169 class AddGoalPage(EditGoalPage):
170     # 페이지 열기
171     def open_page(self):
172         # 페이지 출력
173         self.print_page('목표 추가')
174         command = input()
175         # + 입력하기 메인 목표 페이지로 이동
176         if(command == '0'):
177             next_page = MainGoalPage()
178             self.in_opened_pages(next_page)
179         elif(command == '-1'):
180             self.delete_page()
181         elif(command == 'esc'):
182             terminate = True
183             return terminate
184         # 입력받은 내용을 목표에 추가
185         else:
186             # 마지막 하위 목표 입력
187             current_goal_number = self.goal.goal_number
188             last_sub_goal_index = len(self.sub_goal_list) - 1
189             # 목표 입력시 끝나는 마지막 하위 목표와 인덱스 계산, 새 목표의 마지막 번호 계산
190             # 하위 목표가 존재할 경우 설정 방법
191             if last_sub_goal_index >= 0:
192                 last_sub_goal = self.sub_goal_list[last_sub_goal_index]
193                 goal_level = last_sub_goal.get_goal_level()
194                 last_part_number = last_sub_goal.get_part_number(goal_level)
195                 new_part_number = to_digit_number(int(last_part_number)+1, last_sub_goal.DIGIT_SIZE)
196                 last_index = GoalField().data.index(last_sub_goal)
197                 # 만약 목표가 없는 경우 현재 페이지의 목표의 인덱스로 계산
198             else:
199                 new_part_number = '01'
200                 last_index = GoalField().data.index(self.goal)
201             # 새 목표의 목표 번호 계산
202             new_goal_number = current_goal_number + new_part_number
203             # 위치해 맞게 데이터 형식에 새 목표 입력, 내용 목표에 내용 추가
204             GoalField().data.insert(last_index+1, Goal(new_goal_number))
205             GoalField().contents[new_goal_number] = command
206             terminate = False
207             return terminate
```

## Function 7) delete a goal

- input : goal data field, goal content field, input menu
- output : delete a sub goal that the user wants to delete.
- explanation :

1. The 'open\_page()' method is almost identical to the GoalPage()'s.
2. Ask if you really want to delete the goal.
3. Delete the selected goal and all sub-goals (goals with the same goal number up to the level of that object).

- Apply what I learned: 'del' function, inheritance, overriding, dictionary, list : delete item or key

- Code ScreenShot

```
239 # 목표 삭제 페이지
240 class DeleteGoalPage(EditGoalPage):
241     # 페이지 열기
242     def open_page(self):
243         self.print_page('목표 삭제')
244         command = input()
245
246         # 하위 목표가 존재하는지 확인
247         if len(self.sub_goal_list) == 0:
248             print('목표가 존재하지 않습니다.')
249             self.delete_page()
250         # 0 입력시 하위 목표 페이지로 이동
251         elif command == '0':
252             next_page = MainGoalPage()
253             self.in_opened_pages(next_page)
254         elif command == '-1':
255             self.delete_page()
256         elif command == 'esc':
257             terminate = True
258             return terminate
259
260         else:
261             try:
262                 int_command = int(command)
263             except:
264                 pass
265             else:
266                 # 하위 목표 리스트의 범위 내의 값을 입력시
267                 if (0 < int_command and int_command <= len(self.menu_list)):
268                     # 정말 삭제할지 확인받기
269                     do_delete = input('정말 목표를 삭제하시겠습니까? (Y/N): ').lower()
270                     if do_delete == 'y':
271                         selected_goal = self.sub_goal_list[int_command - 1]
272                         goal_level = selected_goal.get_goal_level()
273                         # 위층 목표와 한-두 아래 하위(하위) 목표의 레벨까지 목표번호가 동일한 목표들을 삭제
274                         for goal in GoalField().data:
275                             check_number = goal.goal_number[0:(goal_level + 1) * goal.DIGIT_SIZE]
276                             if check_number == selected_goal.goal_number:
277                                 GoalField().data.remove(goal)
278                                 GoalField().contents.pop(goal.goal_number)
279                         terminate = False
280                         return terminate
281                     elif do_delete == 'n':
282                         terminate = False
283                         return terminate
284                 # 잘못 입력시
285                 print('잘못 입력하였습니다.')
286                 terminate = False
287                 return terminate
```

## 2) Test Result

Function 1) Open a page, and the, open next page en

1. At the start of the program, the main menus and main goals are displayed on the screen

```

=====
+. 추가          -. 삭제          enter. 세부 내용
-1. 이전으로    0. 오늘 목표로 전환  ?. 도움말
esc. 프로그램 종료
=====
메인 목표
=====
1. 1번 목표
2. 2번 목표
3. 3번 목표

```

Function 5) Move to and output to the higher/sub goal list

1. when '+' is inputted, Output the Add Goal menu

```

-
=====
-1. 이전으로    0. 메인으로        ?. 도움말
esc. 프로그램 종료
=====
목표 삭제
=====
1번 목표
=====
1. 1번 하위 목표1
2. 2번 하위 목표2
3. 3번 하위 목표3

```

2. when '-' is inputted, Output the Delete Goal menu

```

-
=====
-1. 이전으로    0. 메인으로        ?. 도움말
esc. 프로그램 종료
=====
목표 삭제
=====
1번 목표
=====
1. 1번 하위 목표1
2. 2번 하위 목표2
3. 3번 하위 목표3

```

3. when '-1' is inputted, output previews page

```

-1
=====
+. 추가          -. 삭제          enter. 세부 내용
-1. 이전으로    0. 오늘 목표로 전환  ?. 도움말
esc. 프로그램 종료
=====
메인 목표
=====
1. 1번 목표
2. 2번 목표
3. 3번 목표

```

4. when '0' is inputted, output main goal page

```

0

=====
+. 추가          -. 삭제          enter. 세부 내용
-1. 이전으로    0. 오늘 목표로 전환  ?. 도움말
esc.프로그램 종료
=====
메인 목표
=====
1. 1번 목표
2. 2번 목표
3. 3번 목표

```

5. when 'esc' is inputted, save the data at the csv fiel, and terminate the program.

```

esc
프로그램을 종료합니다.
PS C:\Users\200244\코딩 파일\VS Code\goal_based_planner>

```

After deleting '4번 목표', adding '1번 하위 목표 3', contents csv file, data csv file

goal_csv > goal_contents.csv	goal_csv > goal_data.csv
1 ,메인 목표	1 ,0,0,0,0,0,0,0.0
2 01,1번 목표	2 01,0,0,0,0,0,0,0.0
3 02,2번 목표	3 0102,0,0,0,0,0,0,0.0
4 03,3번 목표	4 0103,0,0,0,0,0,0,0.0
5 0102,1번 하위 목표2	5 010201,0,0,0,0,0,0,0.0
6 010201,1번 하위의 하위 목표1	6 010202,0,0,0,0,0,0,0.0
7 010202,1번 하위의 하위 목표2	7 02,0,0,0,0,0,0,0.0
8 0103,1번 하위 목표3	8 03,0,0,0,0,0,0,0.0

6. When you enter the desired goal number, the sub-goal output of the corresponding goal page is displayed

```

2

=====
+. 추가          -. 삭제          enter. 세부 내용
-1. 이전으로    0. 메인으로        ?. 도움말
esc.프로그램 종료
=====
2번 하위 목표2
=====
1. 1번 하위의 하위 목표2

```

7. If you entered incorrectly, '잘못 입력하였습니다.' output

5 잘못 입력하였습니다.	잘못 입력 잘못 입력하였습니다.
=====	=====
+. 추가          -. 삭제          enter. 세부 내용	+. 추가          -. 삭제          enter. 세부 내용
-1. 이전으로    0. 메인으로        ?. 도움말	-1. 이전으로    0. 메인으로        ?. 도움말
esc.프로그램 종료	esc.프로그램 종료
=====	=====
1번 목표	1번 목표
=====	=====
1. 1번 하위 목표1	1. 1번 하위 목표1
2. 2번 하위 목표2	2. 2번 하위 목표2
3. 3번 하위 목표3	3. 3번 하위 목표3

### Function 3) Open a Main Goal Page (modified)

#### 1. when '+' is inputted, Output the Add Goal menu

```
+  
  
=====   
-1. 이전으로      0. 메인으로      ?. 도움말   
esc. 프로그램 종료   
-----   
목표 추가   
  
메인 목표   
-----   
1. 1번 목표   
2. 2번 목표   
3. 3번 목표
```

#### 2. when '-' is inputted, Output the Delete Goal menu

```
-   
  
=====   
-1. 이전으로      0. 메인으로      ?. 도움말   
esc. 프로그램 종료   
-----   
목표 삭제   
  
메인 목표   
-----   
1. 1번 목표   
2. 2번 목표   
3. 3번 목표   
4. 4번 목표
```

#### 3. when '-1' is inputted, output previews page

```
-1   
  
=====   
-1. 이전으로      0. 메인으로      ?. 도움말   
esc. 프로그램 종료   
-----   
목표 추가   
  
메인 목표   
-----   
1. 1번 목표   
2. 2번 목표   
3. 3번 목표   
4. 4번 목표
```

#### 4. when 'esc' is inputted, save the data at the csv fiel, and terminate the program.

```
esc   
프로그램을 종료합니다.   
PS C:\Users\200244\코딩 파일\VS Code\goal_based_planner>
```

After adding '4번 목표', contents csv file, data csv file

1	,메인 목표	,0,0,0,0,0,0.0
2	01,1번 목표	01,0,0,0,0,0,0.0
3	02,2번 목표	0102,0,0,0,0,0,0.0
4	03,3번 목표	0103,0,0,0,0,0,0.0
5	0102,1번 하위 목표2	010201,0,0,0,0,0,0.0
6	010201,1번 하위의 하위 목표1	010202,0,0,0,0,0,0.0
7	010202,1번 하위의 하위 목표2	02,0,0,0,0,0,0.0
8	0103,1번 하위 목표3	03,0,0,0,0,0,0.0
9	04,4번 목표	04,0,0,0,0,0,0.0

5. If you entered incorrectly, '잘못 입력하였습니다.' output

```
=====
+. 추가          -. 삭제          enter. 세부 내용
-1. 이전으로    0. 오늘 목표로 전환  ?. 도움말
esc. 프로그램 종료
-----
메인 목표
-----
1. 1번 목표
2. 2번 목표
3. 3번 목표

잘못 입력
잘못 입력 하였습니다.
```

## Function 6) input a new goal

1. Add input content to the main goal (check if it is added to the main goal)

```
4번 목표

=====
-1. 이전으로    0. 메인으로        ?. 도움말
esc. 프로그램 종료
-----
목표 추가

메인 목표
-----
1. 1번 목표
2. 2번 목표
3. 3번 목표
4. 4번 목표
```

2. Add input content to the current goal (check if it is added to the current goal)

```

3번 하위 목표3

=====
-1. 이전으로      0. 메인으로      ?. 도움말
esc.프로그램 종료
=====
목표 추가

1번 목표
=====
1. 1번 하위 목표1
2. 2번 하위 목표2
3. 3번 하위 목표3

```

3. when '-1' is inputted, output previews page

```

-1

=====
+. 추가      -. 삭제      enter. 세부 내용
-1. 이전으로  0. 오늘 목표로 전환  ?. 도움말
esc.프로그램 종료
=====
메인 목표
=====
1. 1번 목표
2. 2번 목표
3. 3번 목표
4. 4번 목표

```

4. when '0' is inputted, output main goal page

```

0

=====
+. 추가      -. 삭제      enter. 세부 내용
-1. 이전으로  0. 오늘 목표로 전환  ?. 도움말
esc.프로그램 종료
=====
메인 목표
=====
1. 1번 목표
2. 2번 목표
3. 3번 목표
4. 4번 목표

```

## Function 7) delete a goal

1. When entering the number of the deletion goal, a message is output to confirm whether the goal is to be deleted

Delete the corresponding goal when entering y (or Y)

```

4
정말 목표를 삭제하시겠습니까? (Y/N): y

=====
-1. 이전으로      0. 메인으로      ?. 도움말
esc. 프로그램 종료
=====
목표 삭제

메인 목표
=====
1. 1번 목표
2. 2번 목표
3. 3번 목표

```

2. Return to the Delete page when n(or N) is entered

```

3
정말 목표를 삭제하시겠습니까? (Y/N): n

=====
-1. 이전으로      0. 메인으로      ?. 도움말
esc. 프로그램 종료
=====
목표 삭제

메인 목표
=====
1. 1번 목표
2. 2번 목표
3. 3번 목표

```

3. when '-1' is inputted, output previews page

```

-1

=====
+. 추가          -. 삭제          enter. 세부 내용
-1. 이전으로     0. 오늘 목표로 전환    ?. 도움말
esc. 프로그램 종료
=====
메인 목표
=====
1. 1번 목표
2. 2번 목표
3. 3번 목표

```

4. when '0' is inputted, output main goal page

```

0

=====
+. 추가          -. 삭제          enter. 세부 내용
-1. 이전으로     0. 오늘 목표로 전환    ?. 도움말
esc. 프로그램 종료
=====
메인 목표
=====
1. 1번 목표
2. 2번 목표
3. 3번 목표

```

5. If you entered incorrectly, '잘못 입력하였습니다.' output



```
잘못 입력
잘못 입력 하였습니다 .

=====
-1. 이전으로      0. 메인으로      ?. 도움말
esc. 프로그램 종료
-----
목표 삭제

메인 목표
-----
1. 1번 목표
2. 2번 목표
3. 3번 목표
```

## 4. Changes in Comparison to the Plan

### 1) '0' command change

- before

In main page, '0' command is a terminate command.

- after

The '0' command is changed to move to 'today's goal page' in the main goal page, and in other page, '0' command means 'move to current main page'.

- cause

It is more intuitive than when '0' is terminate command.

### 1) terminate the program

- before

Terminate message is sended to main.py only in main page.

- after

In all pages, when 'esc' is inputted, you can terminate the program.

- cause

Changing the operation of '0' command, a new command 'esc' is added.

## 5. Schedule

업무	11/3		11/26	12/4		12/23
----	------	--	-------	------	--	-------

제안서 작성		---->					
기능1		complete					
기능2						----->	
기능3		complete					
기능4	세부기능1			----->		----->	
	세부기능2			----->		----->	
	세부기능3			----->			----->
	세부기능4			----->			----->
기능5	세부기능1			complete			
	세부기능2			complete			
기능6	세부기능1		complete				
	세부기능2		complete				
기능7					complete		
기능8	세부기능1				----->		
	세부기능2					----->	
	세부기능3				----->		
	세부기능4						----->
기능9							----->