Appointment Organizer G01

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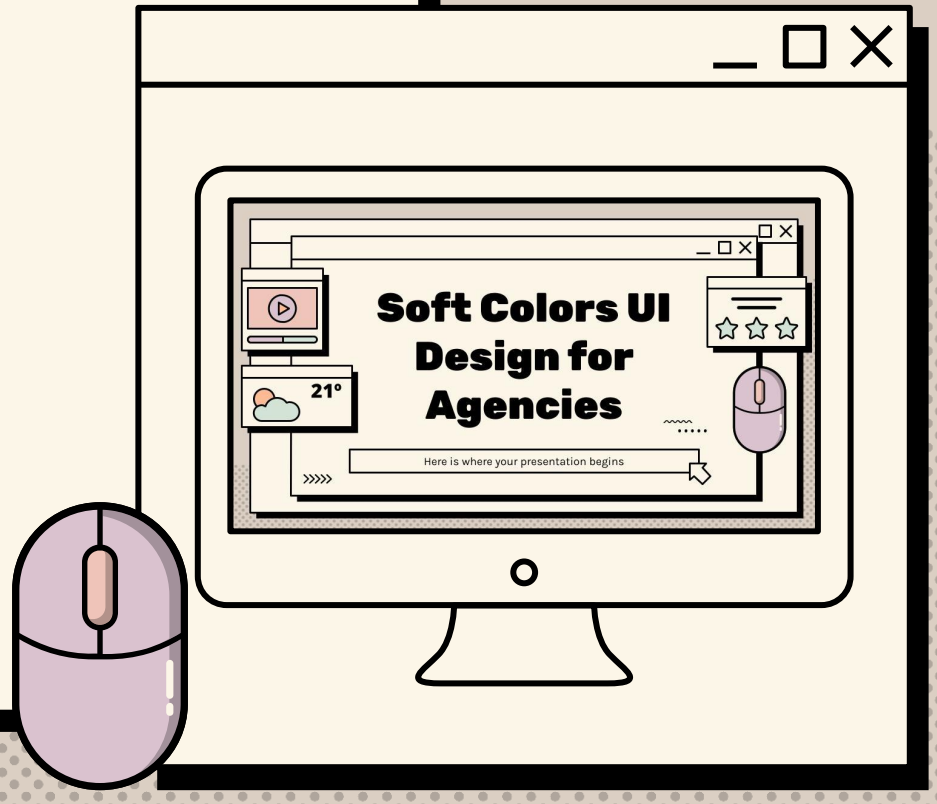
Introduction

What is appointment Organizer

Appointment Organizer

An appointment scheduling application that helps users manage their time with higher efficiency



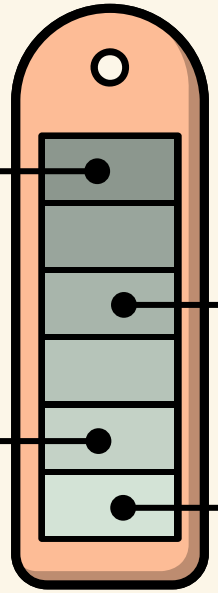
Product Features

Time management

Create Schedule Report
For different users
To help them do the time management

Reschedule

Automatically check whether the users are available, and help the user to design a different kinds of reschedule



Security

Each users are processed separately, no permission to change other users' data

Notification

The Successful scheduled appointment will be auto sent to other callers

02

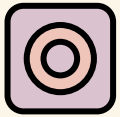
Our Services

How APO in group 1 help you improve your timing

Our Services

Create appointment

Calling other Users



Report your Schedule

Provide different solution for arrangement conflicts

Our Technology

- **Born with speed, accuracy and efficiency**
  Concurrently Running Processes
  Perfect Pipe Implementation
  Detailed Control over processes
- **Cutting-edged Implementation Concept**
  Mutual Exclusion, Synchronization
  protect the completeness and safety
- **Ultimate Tool for Scheduling Your Life**

03

User Guide

How to set up and begin the application

SetUP

Device: Command Line
Running Environment:
Apollo / Apollo 2
Source Code: G01_APO.c

Testing File:
G01_tests.dat
file G01_tests_4.dat
G01_tests_4_400.dat
G01_tests_10_1000.dat

Meet us

Initialization

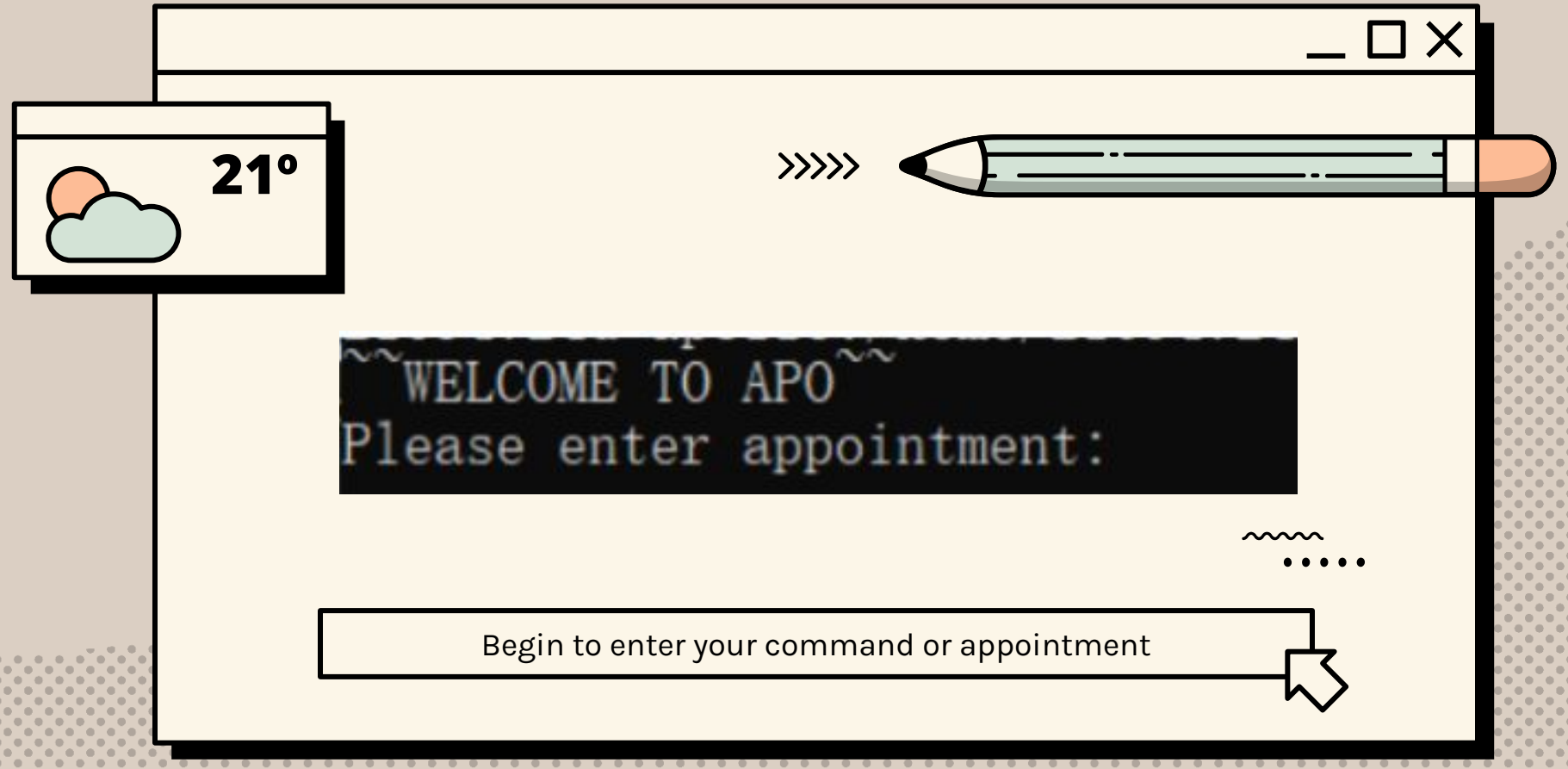
It can be assumed that there are 3 to 10 users in total.

20230501 refers to the year 2023 on May day 1st. (start date)

20230531 refers to the year 2023 and May day 31th. (end date)

```
21094724d-apollo:home:/21094724d$ gcc G01_APO.c -o apo
./apo 20230501 20230531 john mary paul lucy lisa mike michael lily james robert
```

Meet us


21º
WELCOME TO APO
Please enter appointment:
Begin to enter your command or appointment

Batch Input

file G01_tests.txt

- gathering mary 20230529 2100 1.0 lisa john michael lily paul
- privateTime john 20230523 2000 3.0
- projectMeeting lucy 20230509 1800 1.0 michael lily mike mary paul john
- projectMeeting paul 20230509 1900 4.0 michael lily lisa james robert lucy mike
- groupStudy mary 20230527 2000 3.0 lisa
- privateTime robert 20230517 1800 2.0
- groupStudy james 20230504 1800 5.0 michael lily robert mary lisa lucy mike •••••

Key Words Meaning

privateTime

The private time is a kind of individual activity, for the user to arrange her or his own time slots.

groupStudy

The group study is a kind of group activity for the user as a caller to arrange group study and call the other included callees.

projectMeeting

The project meeting is a kind of group activity for the user as a caller to arrange project meeting and call the other included callees.

gathering

The gathering is a kind of group activity for the user as a caller to arrange group study and call the other included callees.

printSchd

It is used to print the time table and the rejected list after being processed by different algorithms.

endProgram

Leave the program

Key Words Format

[privateTime]:command type
[uuu] - the name of the caller
[YYYYMMDD] - the date of the event
[hhmm] the start time of the event
[n.n]Duration

privateTime

privateTime uuu YYYYMMDD hhmm n.n
e.g.:
privateTime paul 20230401 1800 2.0

groupStudy

groupStudy uuu YYYYMMDD hhmm n.n u1 u2 … e.g. groupStudy paul 20230403 1800 2.0 john lucy

projectMeeting

projectMeeting uuu YYYYMMDD hhmm n.n u1 u2…
e.g. projectMeeting john 20230402 1900 2 paul mary

gathering

gathering uuu YYYYMMDD hhmm n.n u1 u2 … e.g. gathering lucy 20230404 1900 4.0 john paul mary

printSchd

gathering uuu YYYYMMDD hhmm n.n u1 u2 … e.g. gathering lucy 20230404 1900 4.0 john paul mary

endProgram

endProgram

Technology

FCFS

the processes are executed in the order they arrive in the ready queue.

Priority

It assigns a priority to each process by private time/project meeting/group study/gathering, and the process with the highest priority is executed first.

NEW

Long Job First + Autoreschedul Short Jobs

Sorting the appointments based on their duration value, then using **First-Fit** automatically rescheduling the rest appointments.

04

Demo

How the program works

Case 1:

1.New Request: groupMeeting lucy 20230501 1900 2.0 john mary

2.checking timetable:

if available → schedule new events

if not → reject this event

3.No in this case: then reject

Case 2: New requests:

gathering john 20230502 2100 1.0 mary lucy

checking timeable

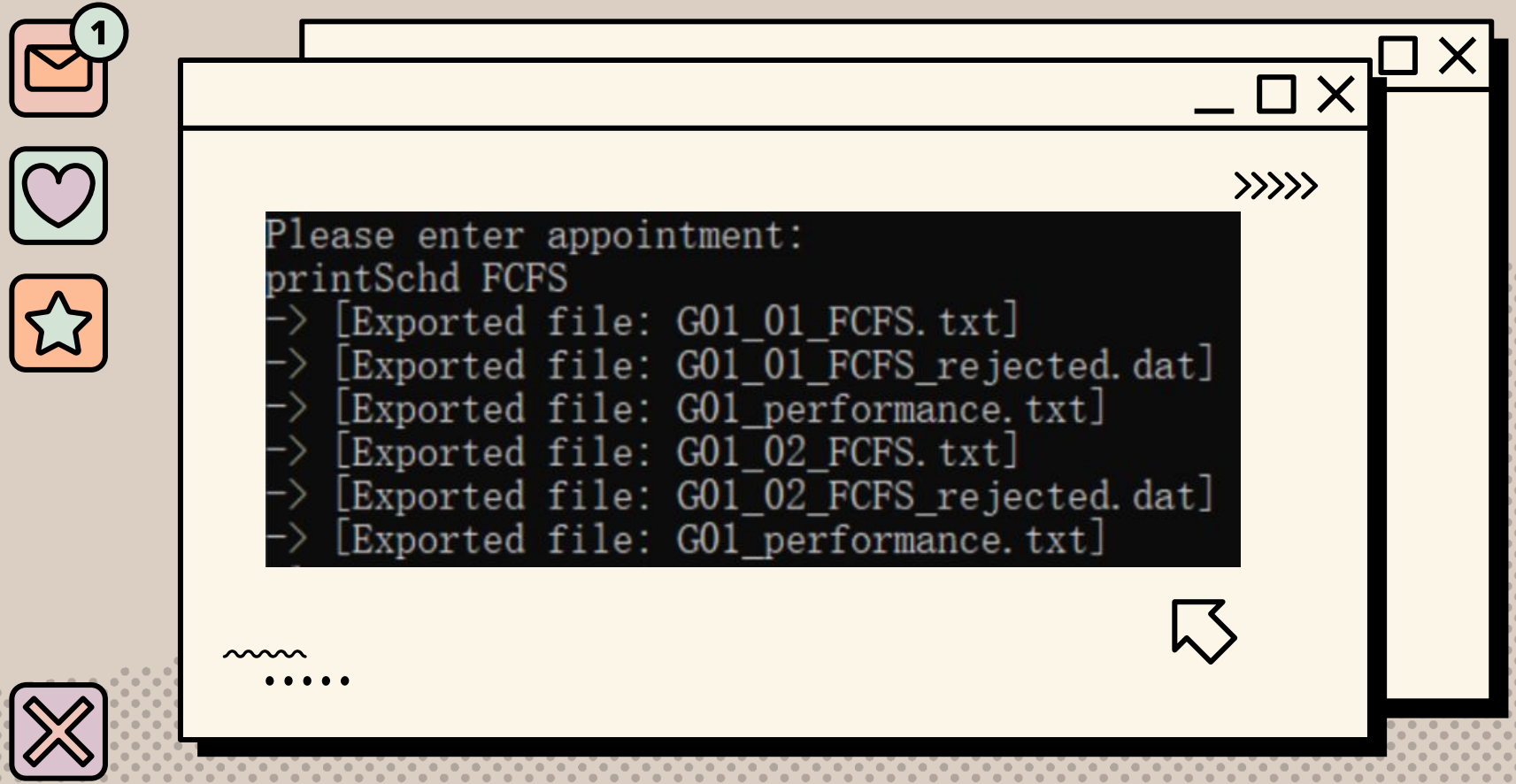
yes in this case, then accept

```
21094724d-apollo:home:/21094724d$ gcc G01_APO.c -o apo
./apo 20230501 20230531 john mary paul lucy lisa mike michael lily james robert
```

```
~~WELCOME TO APO~~
Please enter appointment:
```

```
Please enter appointment:
privateTime paul 20230401 1800 2.0
-> [Recorded]
```

```
Please enter appointment:
file G01_tests100.dat
G01_tests100.dat
-> [Recorded]
-> [Recorded]
-> [Recorded]
-> [Recorded]
-> [Recorded]
-> [Recorded]
-> [Recorded]
-> [Recorded]
-> [Recorded]
-> [Recorded]
-> [Recorded]
-> [Recorded]
```


Please enter appointment:
printSchd FCFS
-> [Exported file: G01_01_FCFS.txt]
-> [Exported file: G01_01_FCFS_rejected.dat]
-> [Exported file: G01_performance.txt]
-> [Exported file: G01_02_FCFS.txt]
-> [Exported file: G01_02_FCFS_rejected.dat]
-> [Exported file: G01_performance.txt]

Original Schedule

Period: 2023-05-01 to 2023-05-31
Algorithm used: FCFS

Appointment Schedule

. John, you have 10 appointments.

Date	Start	End	Type	People
2023-05-05	19:00	22:00	groupStudy	Lucy Mike
2023-05-08	19:00	20:00	projectMeeting	Mary Lucy Lisa Mike Michael Lily Robert
2023-05-09	18:00	19:00	projectMeeting	Mary Paul Lucy Mike Michael Lily
2023-05-12	20:00	22:00	privateTime	

Improved Schedule

Period: 2023-05-01 to 2023-05-31
Algorithm used: FCFS

Appointment Schedule

. John, you have 22 appointments.

Date	Start	End	Type	People
2023-05-01	18:00	21:00	gathering	Paul Lisa
2023-05-01	22:00	23:00	groupStudy	Mary Paul Lisa Mike Michael Lily James Ro
2023-05-02	18:00	21:00	projectMeeting	James
2023-05-02	22:00	23:00	groupStudy	Paul Lucy Michael Robert
2023-05-03	18:00	20:00	projectMeeting	Lucy Lisa Mike Robert

Rejected Differences

```
***Rejected List***
Altogether there are 51 appointments rejected
======================================================================
1. gathering lisa 20230523 2000 3.0 paul john
2. projectMeeting lisa 20230531 1900 3.0 lily mike michael robert paul lucy mary james
3. projectMeeting mike 20230529 2100 1.0 lisa michael
```

```
***Rejected List***
Altogether there are 27 appointments rejected
======================================================================
1. projectMeeting lisa 20230525 2000 3.0 john lily lucy mike robert paul james michael mary
2. projectMeeting mary 20230517 1800 5.0 lisa michael robert lucy john paul mike lily james
3. projectMeeting mike 20230515 1900 4.0 mary michael john lily robert
4. projectMeeting paul 20230509 2000 2.0 lucy mary michael lily john lisa james robert
```

Improved Performance

```
***  Performance  ***

Total Number of Requests Received: 100
      Number of Requests Accepted: 49 (49.00%)
      Number of Requests Rejected: 51 (51.00%)
```

```
***  Performance  ***

Total Number of Requests Received: 100
      Number of Requests Accepted: 67 (67.00%)
      Number of Requests Rejected: 33 (33.00%)
```

Thanks!!!

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