Problem Definition: Doctor Celebi is a psychologist who works in his own once. He stores patient appointments in a text file.

He just stores the initial characters of name and surnames of patients. He usually needs to take unscheduled

travels, so he gives a number for appointment day e.g. 5, 23 or 35 instead of a date. When he does not have

a trip, he comes to work at 8:00 o'clock in the morning. And he leaves the once after the last appointment

of the day. Each appointment takes one hour. His assistant arranges the appointments by day and time

manually which is error-prone and time consuming. Therefore, these days, they are looking for a programmer

to write an app that does this arrangement process automatically. Adding task ascending order with respect

today number and time, removing task, delaying one task to the next time or delaying all tasks of a day

will be performed by this app. Some important instructions about this app as below;

* A part from the text \_le noted is given below as example (Figure 1).Each row is an appointment

information for a patient.

A close up of a map

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* Each task (Task will be used instead of appointment in this document and vice versa.) has a name

(two capital letters e.g. AN: Ali Nevehirli), a day number (an integer bigger than 0), an hour (an

integer between 0 and 23, 24 hour style) and priority degree (an integer between 1 and 3) info. 3 is

the top priority and 1 is lowest priority. (Do not care about minute, we are just dealing with hour)

* The appointments will be arranged by day number and time in ascending order. The \_rst task of each

day points out the first tasks of the next and previous days (Figure 2). Also, each task has a pointer

that keeps the next task in the same day. Cycled list allows you to use shortest path to achieve target

place in operations such as adding, removing etc.

* If there are more than one task in the same day and time, take into account the priorities of tasks.

The task which has smaller priority is delayed to first next available time. Available times are

explained in the following paragraph. If available time does not exist, the task is delayed to next free

(not allocated) hour between 8:00 and 16:00(in the current day or following day).

* Available times are the times when Dr Celebi is at once and an appointment does not exist. The

available times are restricted between 8:00 and 16:00. After 16:00 o'clock there is not any available

time even if Dr Celebi is at once. Do not forget that Dr Celebi leaves from once after the last

appointment in a day. The next available times for an appointment are the available times that

comes after the appointment. An example of appointment schedule (Figure 3) and next available times

according to this schedule (Figure 4, Figure 5) are given below;

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A screenshot of a social media post

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