

Programming Project / C++ - Dental Office Appointment System –

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I. Task Description:

Student 1 is responsible for managing the dental office:

- Adding and deleting appointments for all patients
- Viewing appointments

Student 2 is responsible for interacting with the dental office:

- Adding and deleting appointments from a personal appointment list
- Creating an appointment, seeing appointment history
- Checking if a date is available
- Viewing all available operations

II. Data Structures Used by the Team

The following classes will be used:

- Appointment: Operation operation, Date date, string patientName
- Date: int year, int month, int hour, int minute, int day
- Operation: string name, double price, int duration

For appointmentHistory an array will be used.

III. File Structure

The following files will be used:

operations.txt

A file where details about the available dental operations will be stored in the form:

<operation_name1> <price> <duration_in_minutes>

<operation_name2> <price> <duration_in_minutes>

....

appointments.txt

A file where details about scheduled appointments will be stored:

```
<patient_name1> <operation_name1> <price>  
<duration_in_minutes> <day> <month> <year> <hour> <minute>  
  
<patient_name2> <operation_name2> <price>  
<duration_in_minutes> <day> <month> <year> <hour> <minute>
```

....

IV. Interacting with Executables

Application 1 will offer the following options:

app_1.exe view_appointments

To view all available appointments for all patients

```
app_1.exe add_appointment <patient_name> <operation_name>  
<price> <duration_in_minutes> <day> <month> <year> <hour>  
<minute>
```

To add an appointment for a patient

```
app_1.exe delete_appointment <patient_name>  
<operation_name> <price> <duration_in_minutes> <day>  
<month> <year> <hour> <minute>
```

To delete an appointment for a patient

app_1.exe view_appointments

To view appointments for all patients

Application 2 will offer the following options:

app_2.exe view_appointments

To view your appointments

```
app_2.exe add_appointment <patient_name> <operation_name>  
<price> <duration_in_minutes> <year> <month> <day> <hour>  
<minute>
```

To add an appointment for you

```
app_2.exe delete_appointment <patient_name>  
<operation_name> <price> <duration_in_minutes> <year>  
<month> <day> <hour> <minute>
```

To delete an appointment for you

```
app2.exe check_availability <day> <month> <year> <hour>  
<minute>
```

To check availability for a given date

```
app_2.exe view_operations
```

To view a list of operations