Programming Project / C++
Dental Office Appointment System

Students

Student 1: Paul Soporan
Student 2: Bogdan Marian

I. Task Description

Student 1 is responsible for managing the operations offered:

- Adding and deleting offers (name, price, duration)

- Viewing offers

Student 2 is responsible for managing the appointment system:

- Scheduling, viewing and deleting appointments

- Checking for availability

II. Data Structures Used by the Team

The following classes are used to represent the application state:

- **Offer:** `string name, float price, int duration`

- **Appointment:**

  `string client_name, Offer offer, chrono::year_month_day date, chrono::hh_mm_ss<chrono ::minutes> time`

- **Class Realation - Aggregation:**

  `The Appointment class contains Offer class as an attribute.`

III. File Structure

The two applications communicate through the following files:

- **offers.csv**
  Stores offered operations in CSV format, where each line is of the form `<offer_name>,<price>,<duration>`. `<price>` is in *RON*, while `<duration>` is in *minutes*.

  Example: `Dental Cleaning,75,30`

- **appointments.csv**
  Stores appointments in CSV format, where each line is of the form `<client_name>,<offer>,<date>,<time>`. `<date>` is in *dd/mm/yyyy* format, while `<time>` is in *hh::mm* format.

  Example: `Marcel,Dental Cleaning,15/06/2025,16:30`

IV. Interacting with Executables

Application 1 Commands:

- `./app_1.exe view_offers`
  View all available offers

- `./app_1.exe add_offer <offer_name> <price> <duration>`
  Add a new offer

- `./app_1.exe delete_offer <offer_name>`
  Delete an offer

Application 2 Commands:

- `./app_2.exe view_appointments <client>`
  View the appointments of the client

- `./app_2.exe check_availability <date>`
  View available time slots for appointments

- `./app_2.exe schedule_appointment <client_name> <offer> <date> <time>`
  Schedule an appointment

- `./app_2.exe delete_appointment <client_name> <date> <time>`
  Delete an appointment