Capstone project
Dental office

Summary

A web application for dental offices provides:
- Appointment scheduling: patients can schedule appointments online with selecting a date and time that works for them and the system can automatically update the dentist's schedule.
- Patient management: a dental office web application can be used to manage patient records, including their contact information and medical history.
- Inventory management: a dental office web application can be used to manage inventory and supplies.

Overall, a dental office web application can provide numerous benefits to dentists, healthcare professionals and patients. By automating routine tasks, dental practices can improve their efficiency, effectiveness and patient outcomes.

Key Features

- Each information of Patients, Appointments, Materials, Services, are stored in table format, including ID and other important informations.
- Manage dental office data, including display, adding, editing or deleting data.
- Search functionality within each table column for easy data filtering.
- Cloud-based architecture using AWS services such as S3, EC2, RDS instance engine type PostgreSQL, Load Balancer, Auto scaling group.
- For managing cloud infrastructure is used Terraform.

Benefits

- Appointment scheduling: Save time and reduce the workload of the front desk staff.
- Patient management: This can help dentists and other healthcare professionals to provide more personalised care to their patients.
- Inventory management: Dentist can easily track the availability of materials and order new supplies when necessary.
- Highly available and capable application

Technical Architecture

- Frontend built using HTML, CSS, TypeScript and Angular.
- Backend developed using Java, Spring Boot.
- Data base built using Flyway, PostgreSQL, Spring Data.

- AWS infrastructure, S3 for frontend hosting, EC2 for backend and RDS for data storage.
- Infrastructure as Code using Terraform for provisioning and managing AWS resources.