README
(AKA the guideline to test the framework)
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1. Special Virtual Environment Version
asgiref==3.5.2
certifi==2022.12.7
Django==4.1
pytz==2022.7
sqlparse==0.4.3
(version parameters are also pasted in the base.txt.
The path is *xue_yizhan_final_project/requirements/base.txt*)

2. Application Description
The Dental Clinic Scheduling System is a web-based application designed to streamline the process of scheduling and managing appointments at UIUC's campus dental clinic (suppose UIUC has such a clinic). The system is built using Django, a powerful web framework for Python, and allows users to view, schedule, and manage appointments with ease. The features include Appointment Scheduling, Patient Management, Dentist Management, Service Listing, and Available Time Listing. It is a comprehensive solution for managing appointments and patient information at a dental clinic. Whether you're a patient, a dental staff member, or a clinic manager, the system provides a powerful set of features to make your job easier.

3. Authentication and Authorization Scheme
In the system, 5 groups of users are designed: superuser, client, doctor, assistant(also a scheduler to help organize appointments), and admin (the clinic leader). Different group is assigned with different permissions. They are showing in the table below:

permission/group	supseruser	g_client	g_doctor	g_scheduler	g_admin
Services					
Add	√				√
View	√	√	√	√	√
Change	√				√
Delete	√				√
Patients					
Add	√	√		√	√
View	√	√	√	√	√
Change	√	√		√	√
Delete	√	√		√	√

	Col1	Col2	Col3	Col4	Col5
Dentists					
Add	√		√	√	√
View	√	√	√	√	√
Change	√		√	√	√
Delete	√		√	√	√
Year					
Add	√				√
View	√	√	√	√	√
Change	√				√
Delete	√				√
Month					
Add	√				√
View	√	√	√	√	√
Change	√				√
Delete	√				√
Day					
Add	√				√
View	√	√	√	√	√
Change	√				√
Delete	√				√
Hour					
Add	√				√
View	√	√	√	√	√
Change	√				√
Delete	√				√
Time					
Add	√			√	√
View	√	√	√	√	√
Change	√			√	√
Delete	√			√	√
Appointment					
Add	√			√	√
View	√	√	√	√	√

Change	√	√	√
Delete	√	√	√

4. User IDs and Passwords

I created 6 users representing different groups. Below are users' detailed information.

Username/Group	Password	Active	Staff	Superuser	g_client	g_doctor	g_scheduler	g_admin
tester	{iSchoolUI}	√	√	√				
director	{iSchoolUI}	√	√	√				√
client	{iSchoolUI}	√	√		√			
doctor	{iSchoolUI}	√	√			√		
assistant	{iSchoolUI}	√	√				√	
sysadmin	{iSchoolUI}	√	√	√				√

5. Testing Instructions

To test the schema, please type *python3 manage.py migrate dentalinfo 0005* in Terminal to migrate all data if you cannot find any data records on the server. I have checked the migrations before submitting the project, but I am not sure whether it works after you download on your own computer. All test user IDs and Passwords are provided in the point #4.

Please use *python3 manage.py runserver* in the Terminal to open the framework.

You can choose to user my own-created testing data, or feel free to create your own data in the system after logging in (but remember to use *tester*). For each function, I have designed a complete CRUD operation on it.

6. Relavant Information

I also commit the project on my Github page (https://github.com/xueyizhan/xue_yizhan_final_project).