

Universidad Tecnologica de Tijuana

Desarrollo de Software Multiplataforma

Subject:

Desarrollo móvil multiplataforma

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Introduction:

The Workbit system will be deployed in designated study rooms, reading areas, and small classrooms. Its functionality supports environmental monitoring, attendance tracking, room readiness automation, and analytics dashboards for resource optimization.

Description of the problem.

Environments with Poor Air Quality

Many classrooms and workspaces lack adequate ventilation.

High CO₂ levels affect concentration, performance, and health.

There are no alerts or indicators visible to users or administrators.

Lack of Automation in Space Management

The use of cubicles or rooms is managed manually, without precise control.

There is no automated record of who enters or how long they stay.

General objetive

Develop an intelligent workspace management system that, using IoT technologies and role-based digital access, automates environmental control, records space usage, and facilitates real-time monitoring from web and mobile platforms.

Progress in front-end mobile app

1. section to view the spaces

Interfaz de usuario gráfica, Aplicación

El contenido generado por IA puede ser incorrecto.

1. booking history

Interfaz de usuario gráfica, Texto, Aplicación, Chat o mensaje de texto

El contenido generado por IA puede ser incorrecto.

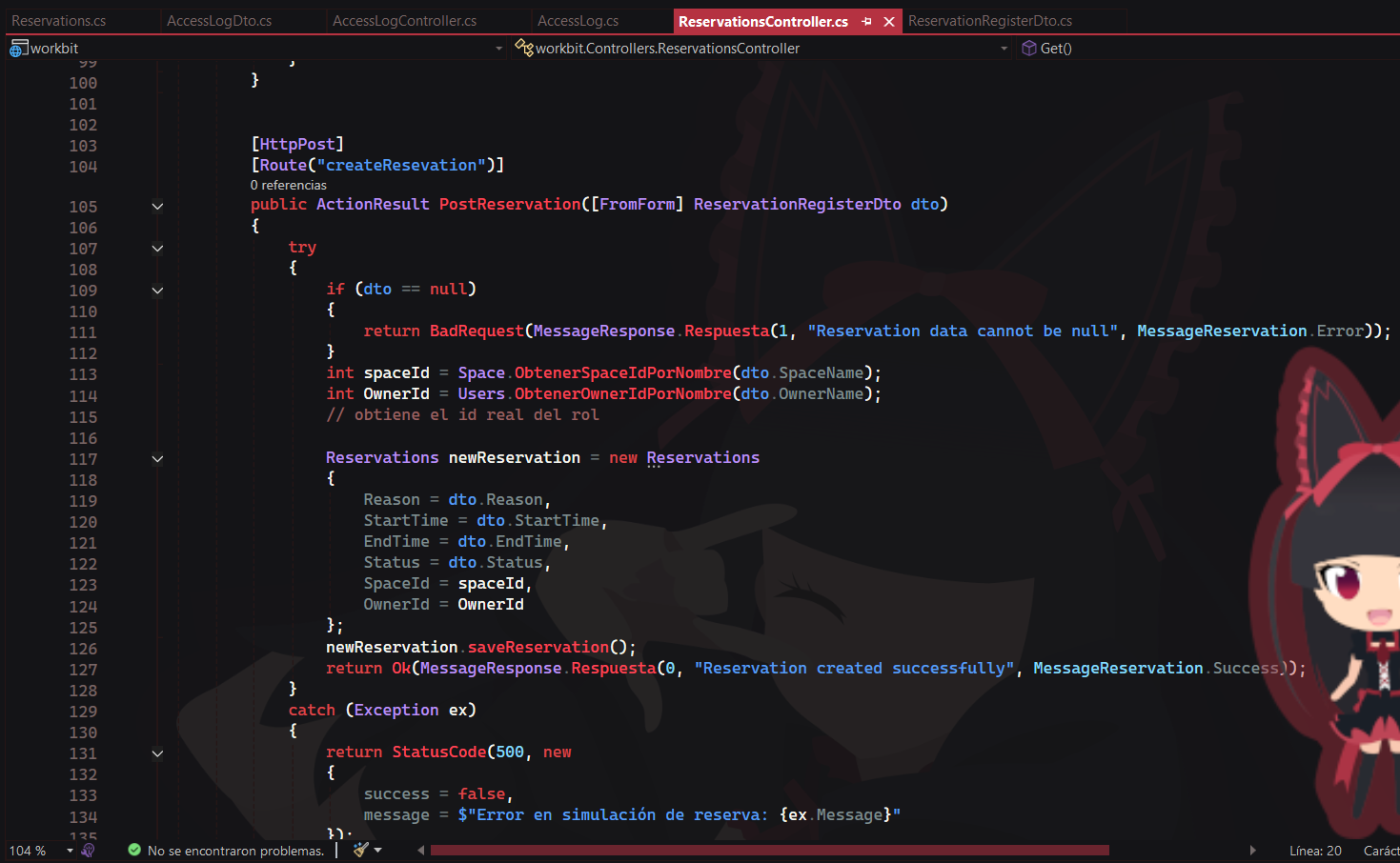
1. environmental monitoring

Interfaz de usuario gráfica, Aplicación

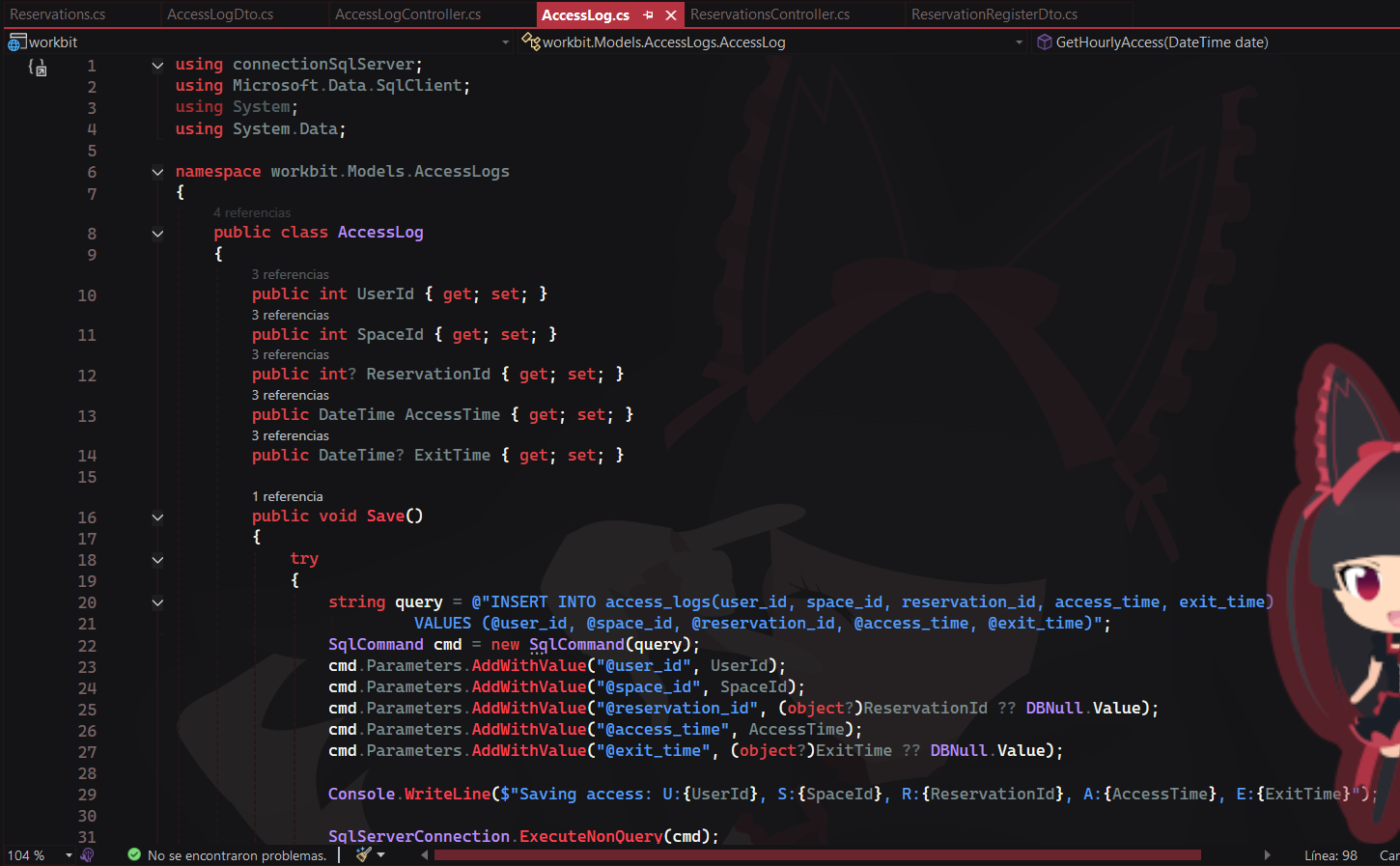
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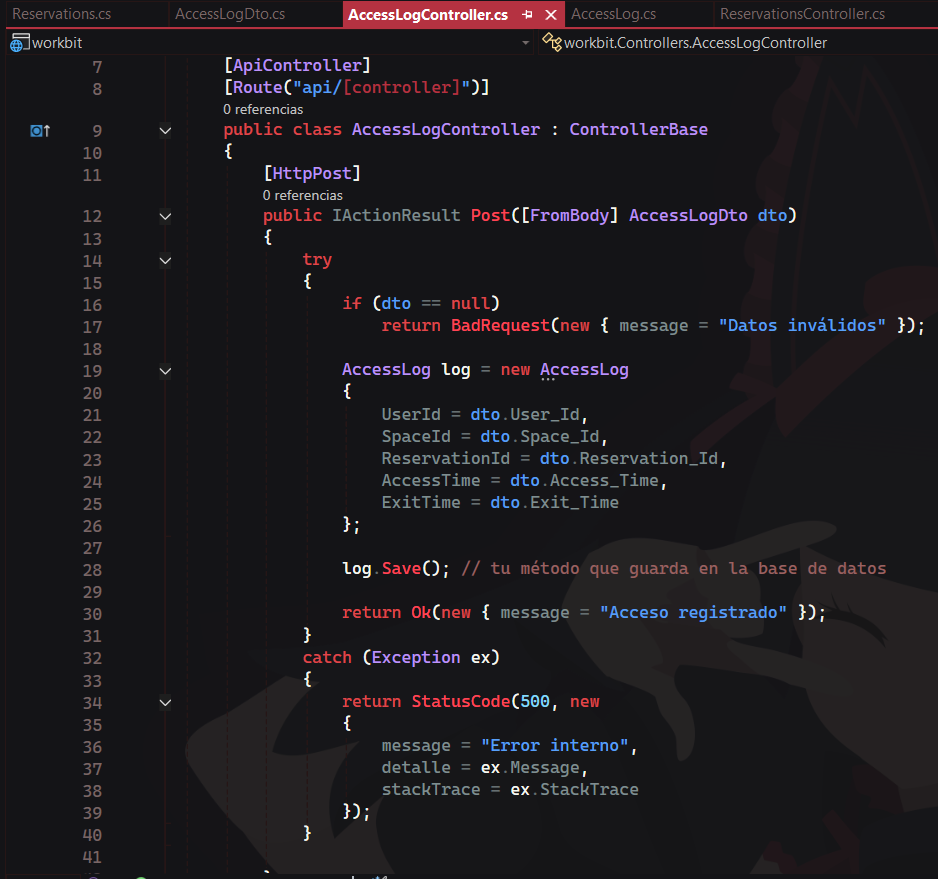
Progress in back-end mobile app

1. code for reservations

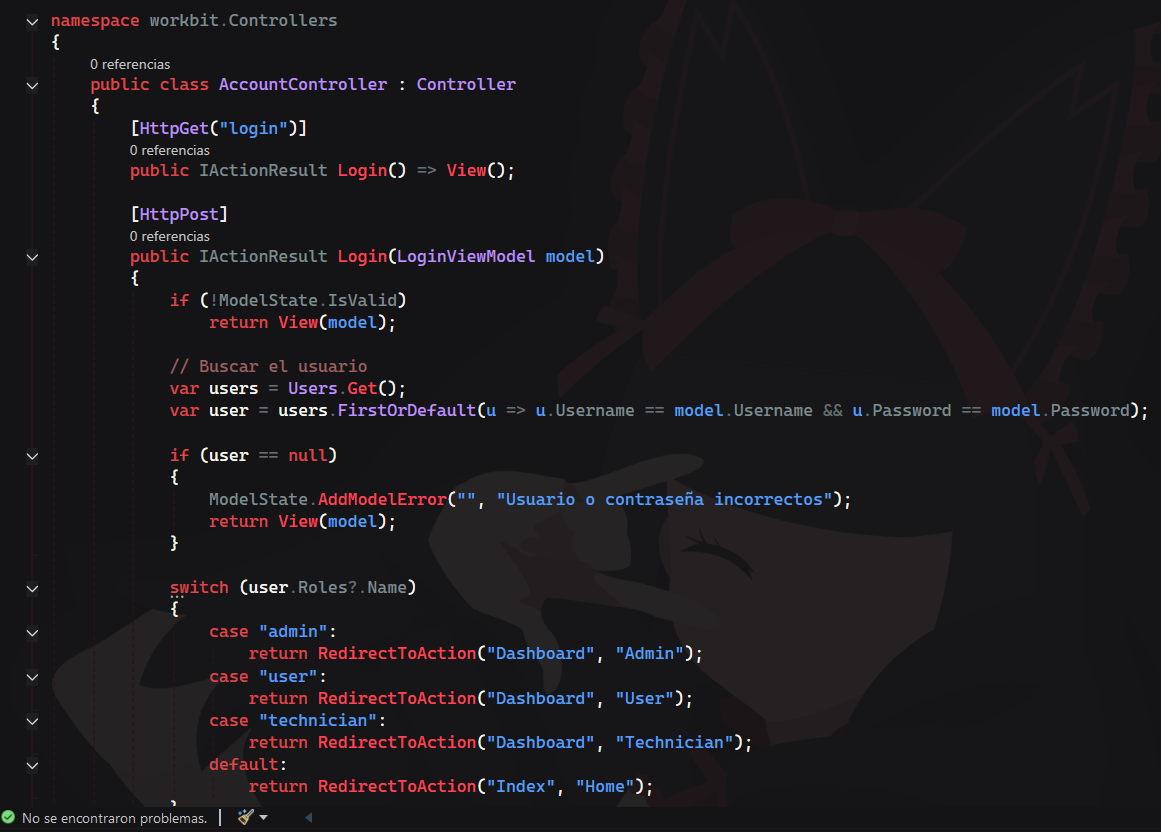


1. code for access control

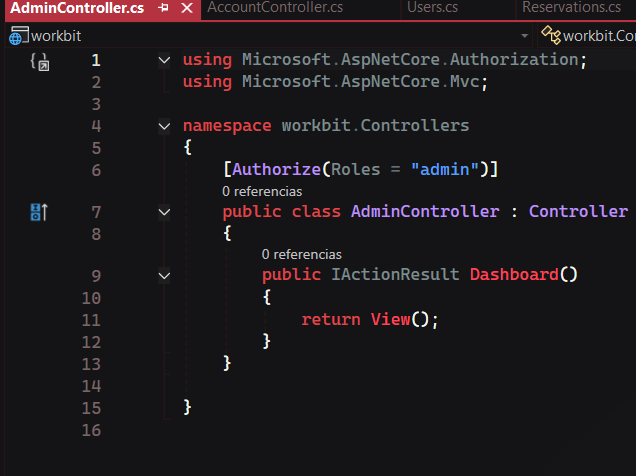




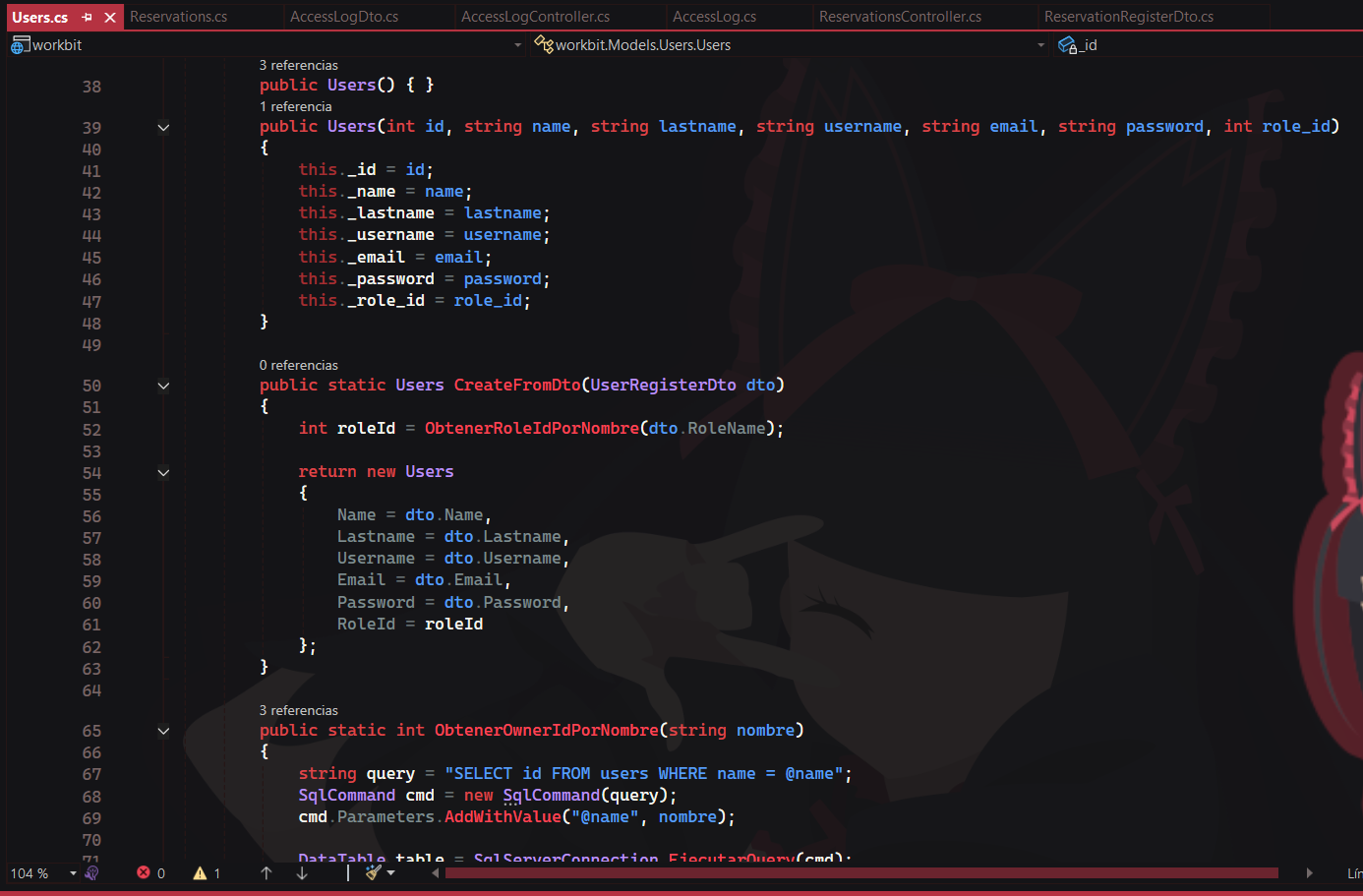
1. login code



1. code for role control



1. code for user functionalities



Coclusion

This first preview shows the development of the main functions of the mobile app already working and operating without any errors. At this point, all that remains is to finish the minor functionalities and complete the front-end development.