

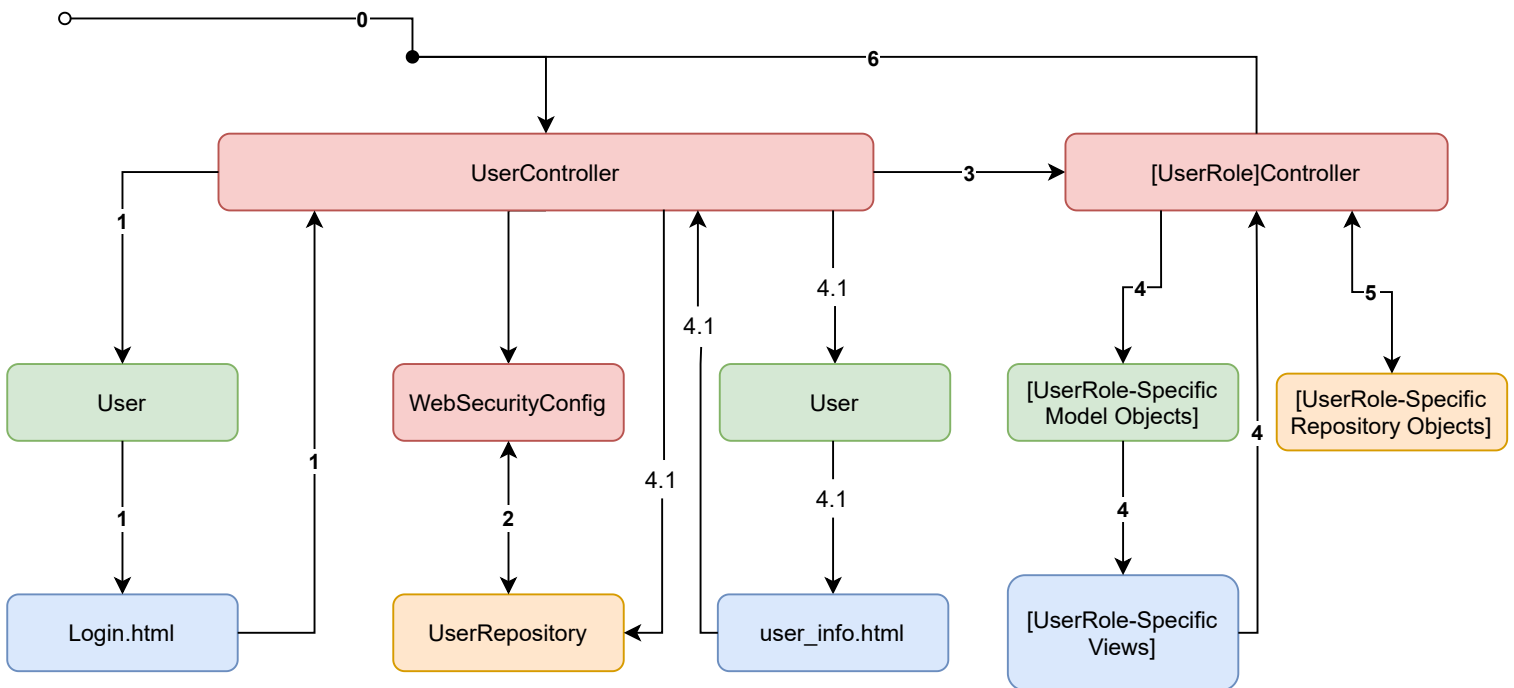
RIS Architecture

Symbol Key:



Note: File names are listed in box, file types are .java unless otherwise specified.

General System Architecture



0. Login Get Request

1. Login Process: Send User data object to Login view, on form submission send form-data to controller.

2. User Authentication: Send User data response object from form-data to WebSecurityConfig which passes the User data to the UserRepository model to check against the database. Returns authentication results if successful (User data, UserRole).

3. Successful Authentication: Pass system control to the specified UserRole controller,

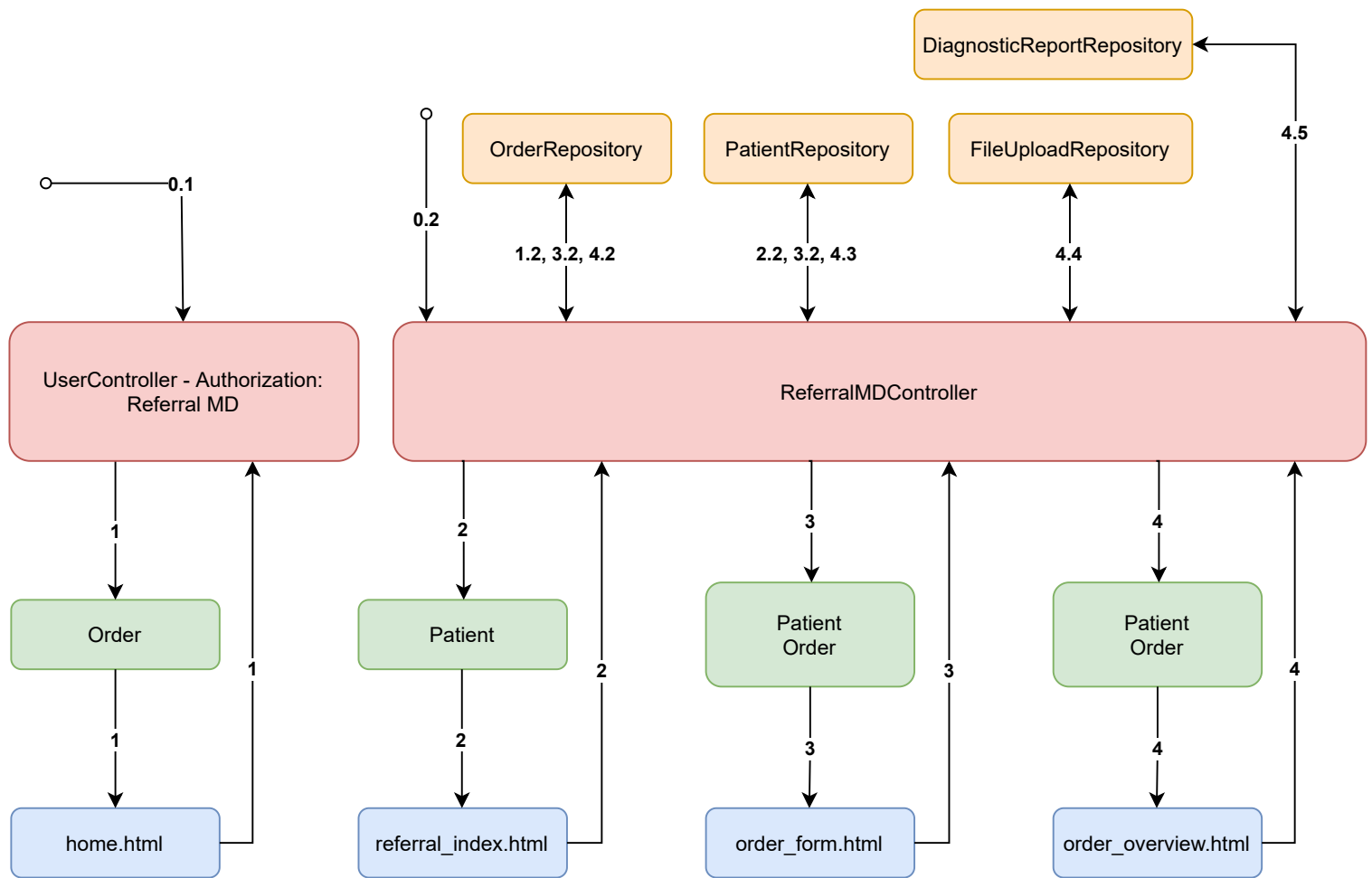
4. UserRole-Specific Functionalities: Send UserRole-specific data objects to views, return form-data objects to controller.

4.1 Update User Info Functionality: Available to all users. Send User Data object to user_info view, send User Form data to User Controller, Query the database with updated user information.

5. Handle Form Data: Send data objects to associated model objects to interface with database, return results to controller.

6. Logout

Referral MD User Architecture

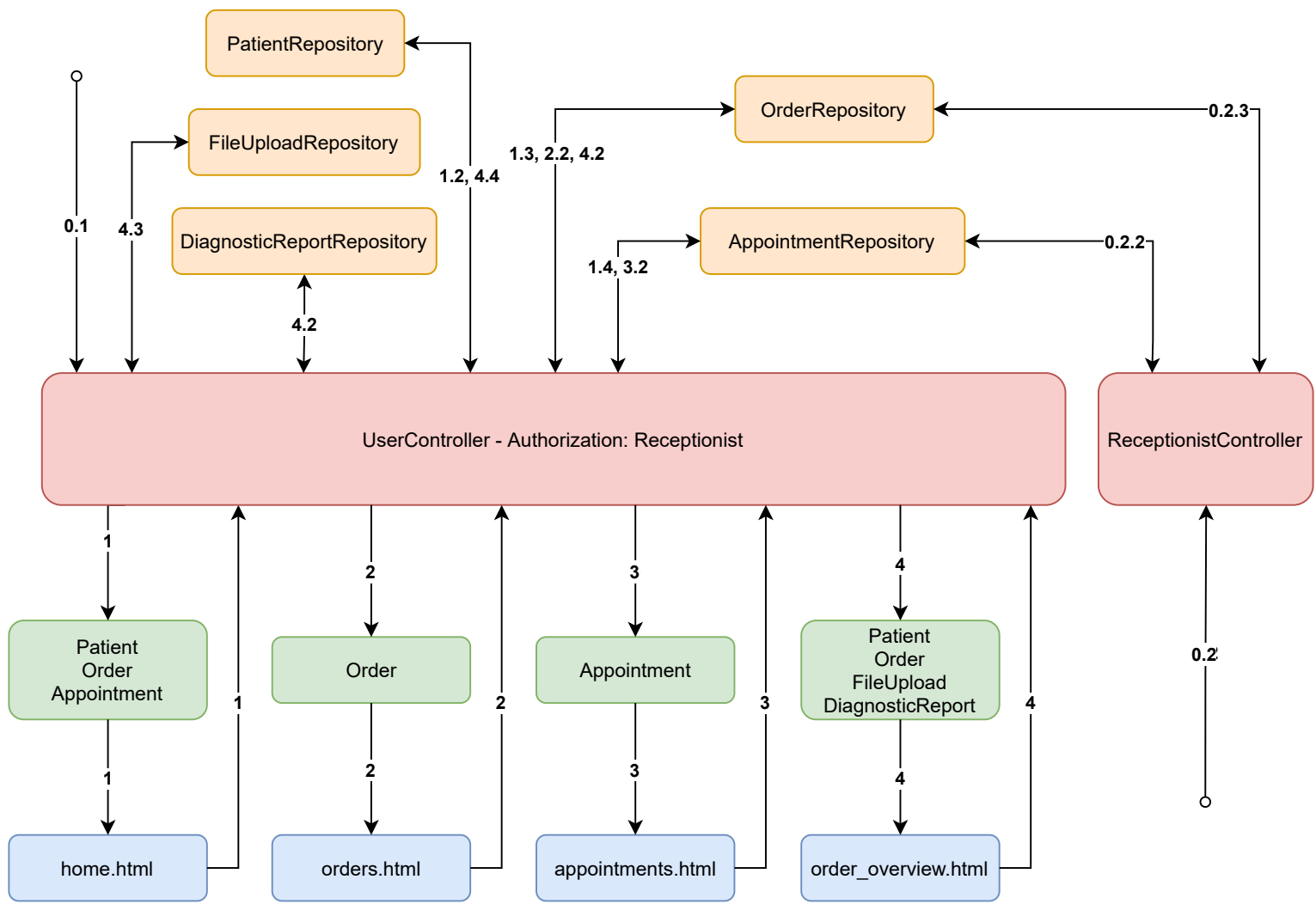


0.1 Successful Authentication - Get Request /Home

0.2 Successful Authentication - Get Request /Referral, /Referral/NewOrder/{patient_id}, /Referral/Order/{order_id}

- 1. Referral MD Dashboard:** Send User and Order data objects to home view, return interactions to controller.
- 2. Patient Lookup:** Send User and Patient data objects to referral_index view, return interactions and form-data to controller.
- 3. Place New Order:** Send User, Patient and Order data objects to order_form view, return interactions and form-data to controller.
- 4. View Placed Order:** Send User, Patient and Order data objects to order_overview view, return interactions to controller.
- 1.2, 3.2, 4.2 Order Model Interactions:** Query/Send Order data object to OrderRepository, return results to controller.
- 2.2, 3.2, 4.3 Patient Model Interactions:** Query/Send Patient data object to PatientRepository, return results to controller.
- 4.4 File Upload Model Interactions:** Query/Send Patient data object to FileUploadRepository, return results to controller.
- 4.5 Diagnostic Report Model Interactions:** Query/Send Patient data object to DiagnosticReportRepository, return results to controller.

Receptionist User Architecture



0.1 Successful Authentication - Get Request: /Home, /Orders, /Appointments, /Order/{order_id}

0.2 Successful Authentication - Post Request: /Staff/UpdateAppointment, /Staff/CheckinAppointment

1. Receptionist Dashboard: Send User, Patient, Order, and Appointment data objects to home view, return interactions and form-data to controller.

2. Orders Data Table: Send User and Order object to orders view, return interactions to controller.

3. Appointments Data Table: Send User and Appointment object to appointments view, return interactions to controller.

4. Order Overview: Send User, Patient, and Order data objects to order_overview view, return interactions to controller.

1.2, 4.4 Patient Model Interactions: Query/Send Patient data object to PatientRepository, return results to controller.

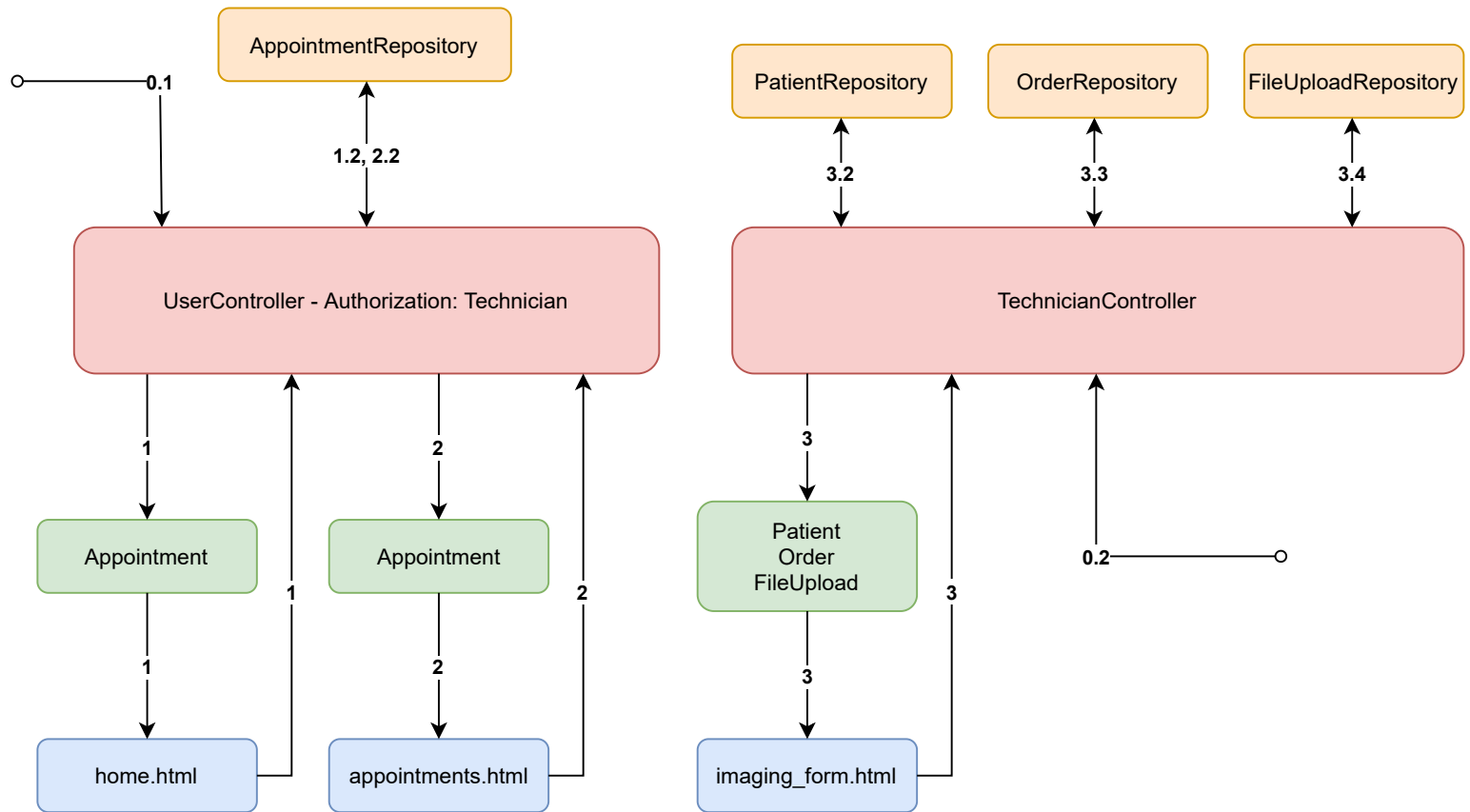
1.3, 2.2, 4.2, 0.2.3 Order Model Interactions: Query/Send Order data object to OrderRepository, return results to controller.

1.4, 3.2, 0.2.2 Appointment Model Interactions: Query/Send Appointment data object to AppointmentRepository, return results to controller.

4.3 FileUpload Model Interactions: Query/Send FileUpload data object to FileUploadRepository, return results to controller.

4.4 DiagnosticReport Model Interactions: Query/Send DiagnosticReport data object to DiagnosticReportRepository, return results to controller.

TechnicianController Architecture



0.1 Successful Authentication - Get Request: /Home, /Appointments

0.2 Successful Authentication - Get Request: /Imaging/Order/{order_id}, Post Request: /upload-file, /CompleteOrder

1. Technician Dashboard: Send Appointment data object to home view, return interactions to controller.

2. Appointments Data Table: Send User and Appointment object to appointments view, return interactions to controller.

3. Imaging Order Form: Send Patient, Order, and FileUpload data objects to imaging_form view, return interactions to controller.

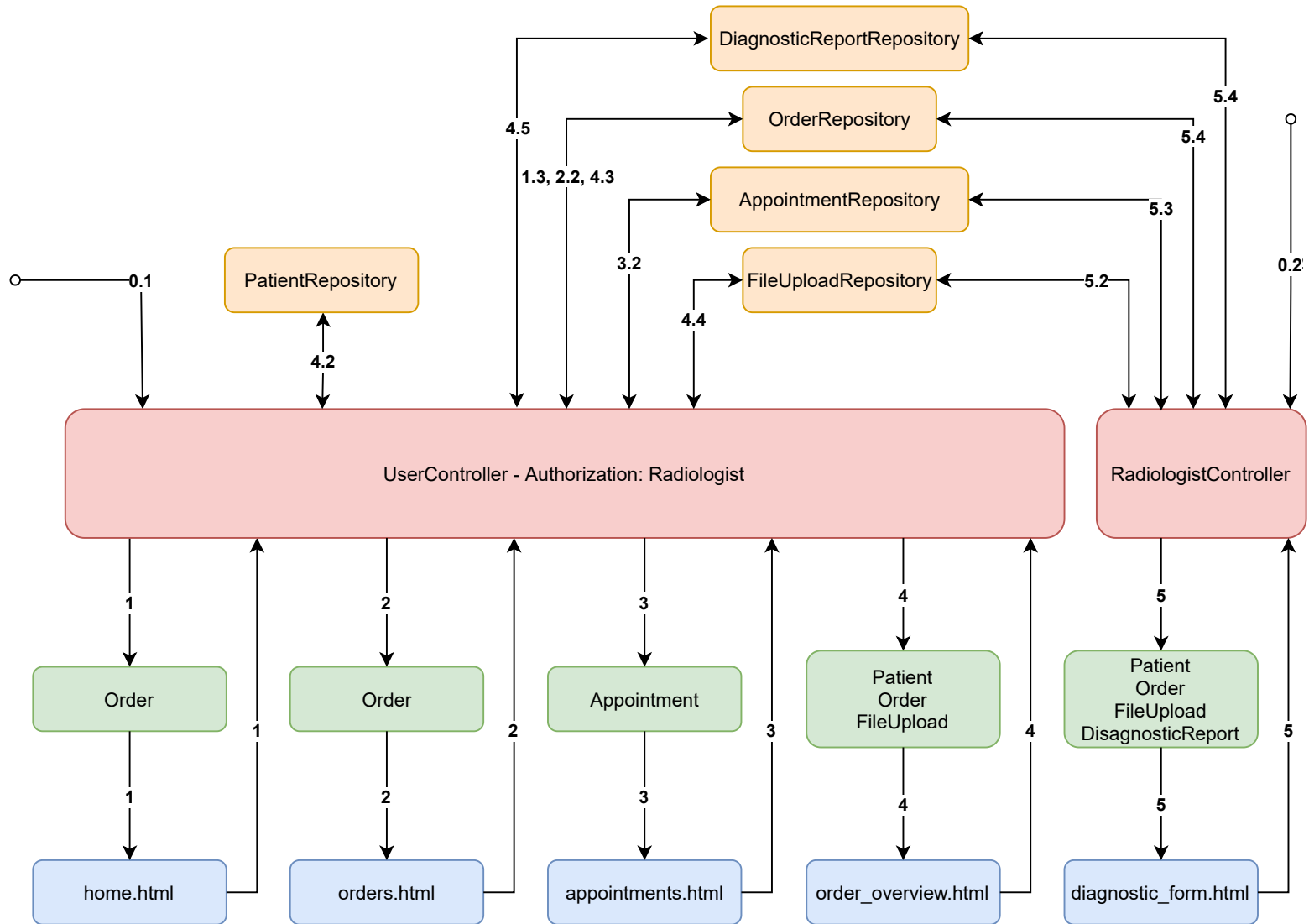
1.2, 2.2 Appointment Model Interactions: Query/Send Appointment data object to AppointmentRepository, return results to controller.

3.2 Patient Model Interactions: Query/Send Patient data object to PatientRepository, return results to controller.

3.3 Order Model Interactions: Query/Send Order data object to OrderRepository, return results to controller.

3.4 FileUpload Model Interactions: Query/Send FileUpload data object to FileUploadRepository, return results to controller.

Radiologist User Architecture



0.1 Successful Authentication - Get Request: /Home, /Orders, /Appointments, /Order/{order_id}

0.2 Successful Authentication - Get Request: /Diagnostics/Order/{order_id}, Post Request: /Diagnostics/SubmitReport

1. Radiologist Dashboard: Send Order data object to home view, return interactions to controller.

2. Orders Data Table: Send Order data object to orders view, return interactions to controller.

3. Appointments Data Table: Send Appointment data object to appointments view, return interactions to controller.

4. Order Overview: Send Patient, Order, and FileUpload data objects to order_overview view, return interactions to controller.

5. Diagnostic Report Form: Send Patient, Order, and FileUpload data objects to diagnostic_form view, return interactions and form-data to controller.

4.2 Patient Model Interactions: Query/Send Patient data object to PatientRepository, return results to controller.

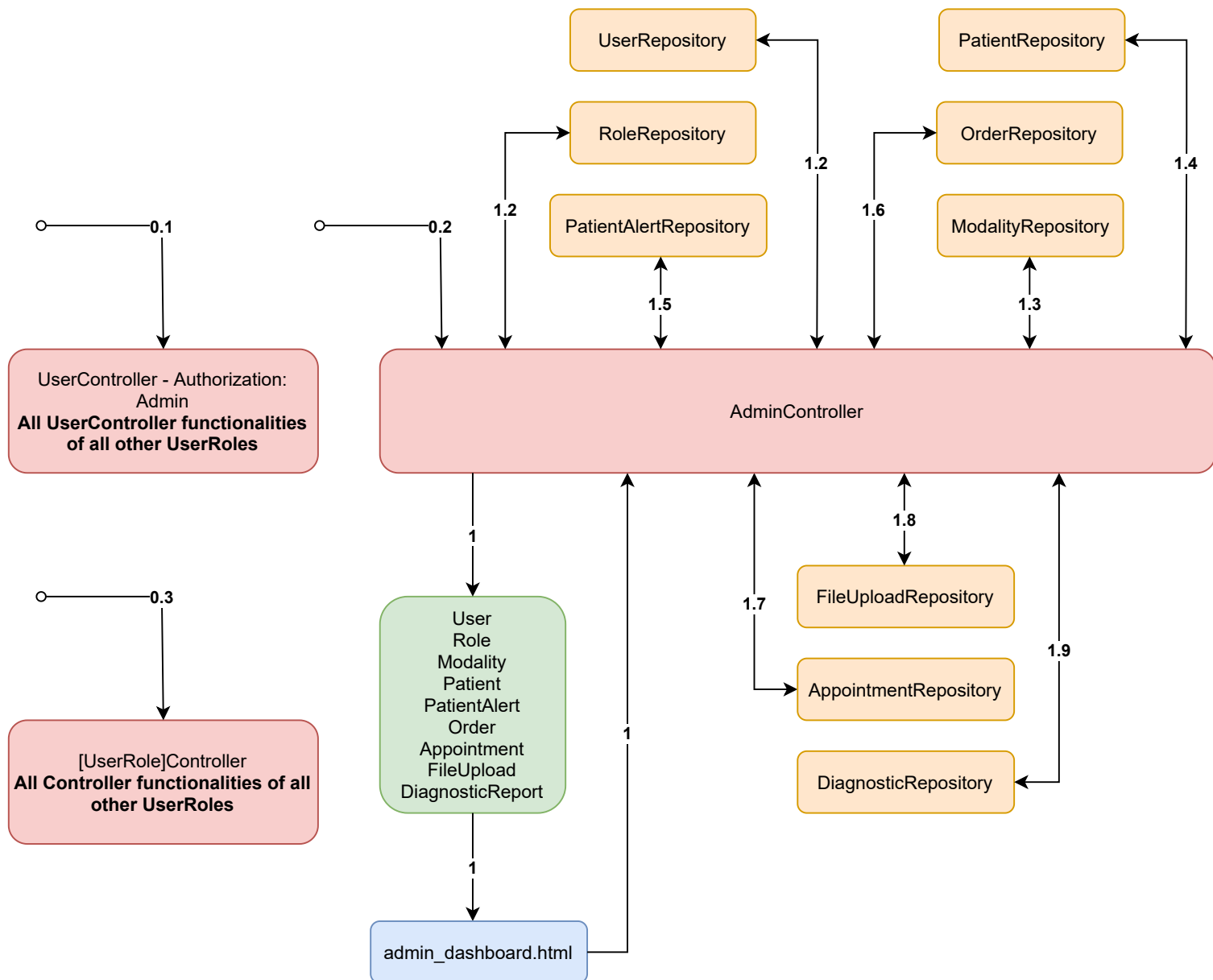
1.3, 2.2, 4.3 Order Model Interactions: Query/Send Order data object to OrderRepository, return results to controller.

3.2 Appointment Model Interactions: Query/Send Appointment data object to AppointmentRepository, return results to controller.

4.4 FileUpload Model Interactions: Query/Send FileUpload data object to AppointmentRepository, return results to controller.

4.5 DiagnosticReport Model Interactions: Query/Send DiagnosticReport data object to DiagnosticReportRepository, return results to controller.

Admin User Architecture



0.1 Successful Authentication - Get Request: All Get-Requests from all authorization levels in the UserController

0.2 Successful Authentication - Get Request: /Admin/Dashboard

0.3 Successful Authentication - Get Request: All Get-Requests from all other controllers

1. Admin Dashboard: Send User, Role, Modality, Patient, PatientAlert, Order, Appointment, FileUpload, and DiagnosticReport data objects to admin_dashboard view, return interactions and form-data to controller

1.X Model Interactions: Query/Send [X] data object to [X]Repository, return results to controller.