Licenciatura de Engenharia de Informática

Software Engineering

Project Management Artifacts

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Product Backlog

Below is the prioritized list of user stories defining the system's features. Each story includes acceptance criteria to guide the implementation and testing phases.

US-001: Drug Interaction Safety Check

Priority: High
Story Points: 8
Status: Implemented
User Story: As a Doctor, I want to automatically check for drug interactions when prescribing medication so that I do not accidentally harm a patient.
Acceptance Criteria:
- The system accepts drug name and patient ID inputs.
- System cross-references new drug against activePrescriptions.
- The system displays "DANGER" alert for known conflicts (e.g., Aspirin + Warfarin).
- The doctor is allowed to override the alert with a reason.

US-002: Automated Billing Calculation

Priority: High
Story Points: 5
Status: Implemented
User Story: As an Administrator, I want the system to calculate patient bills automatically so that insurance rules are applied consistently.
Acceptance Criteria:
- The system calculates total cost based on service fees.
- The system applies the correct strategy (20% co-pay for Private, 50% for Public).
- Strategy can be switched at runtime without restarting the system.

US-003: Role-Based Authentication

Priority: High
Story Points: 3
Status: Implemented
User Story: As a System, I want to authenticate users by role so that unauthorized staff cannot access sensitive functions.
Acceptance Criteria:
- UserFactory creates correct object types.

- System restricts overrideSafetyAlert() method to Doctor objects only.
- Invalid passwords result in failed login.

US-004: Appointment Conflict Detection

Priority: High
Story Points: 5
Status: Implemented
User Story: As a Receptionist, I want to book appointments with conflict detection so that doctors are not double-booked.
Acceptance Criteria:
- The system checks Doctor availability for the requested date/time.
- The system blocks booking if an appointment already exists at that time.
- Successful booking adds the appointment to the schedule list.

US-005: Patient Dashboard

Priority: Medium
Story Points: 5
Status: Planned
User Story: As a Doctor, I want a centralized dashboard of patient history so that I can see vitals and past prescriptions at a glance.
Acceptance Criteria:
- UI displays patient name, age, and ID.
- UI lists all active prescriptions in chronological order.
- UI refreshes automatically when new data is entered.

US-006: Patient Triage System

Priority: Medium
Story Points: 3
Status: Implemented`
User Story: As a Nurse, I want to triage patients based on vital signs so that critical cases are identified immediately.
Acceptance Criteria:
- Input vital signs (Heart Rate, Temperature).
- The system calculates priority scores.
- The system assigns "RED" status if Heart Rate > 120 or Temp > 39.5°C.

Sprint Planning Overview

Sprint	Focus	Deliverables
Sprint 1	Requirements and Foundation	- Deliverable 1 - Base Code
Sprint 2	Core Logic and Testing	- Final Code - JUnit Tests
Sprint 3	Documentation	- Deliverable 3 - Deliverable 4 - Deliverable 2