

# Intuitive Surgical ION FoS

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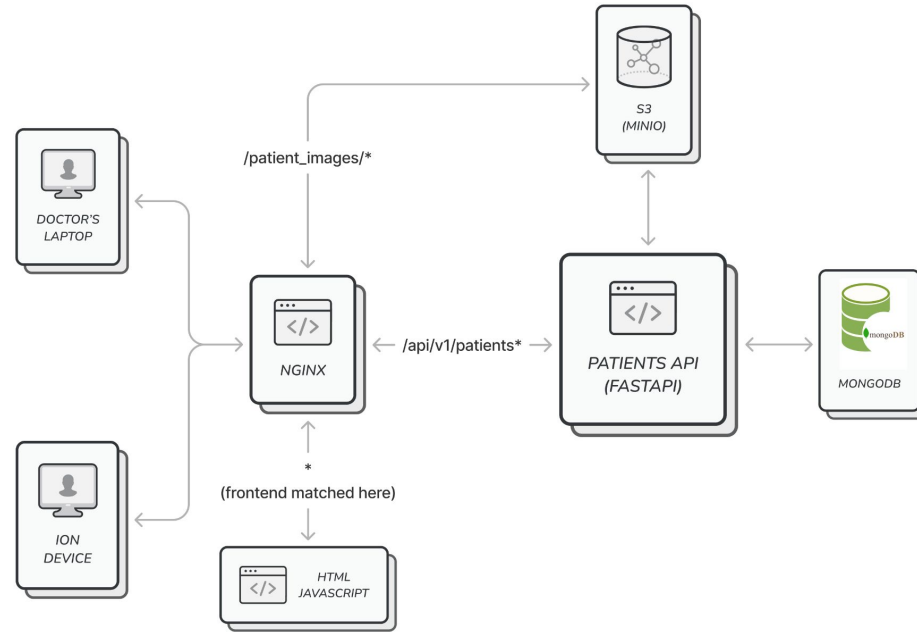
# Presentation Flow (feel free to suggest changes)

- Demo
- Architectural Overview with Diagram
- API Flow with Diagram
- API Docs + Postman
- Testing approach and benefits
- Actual Code walkthrough/overview
- Future Scope of work (what would be needed before we can consider this production grade)
- Note about technical design assumptions and trade offs made
- Questions



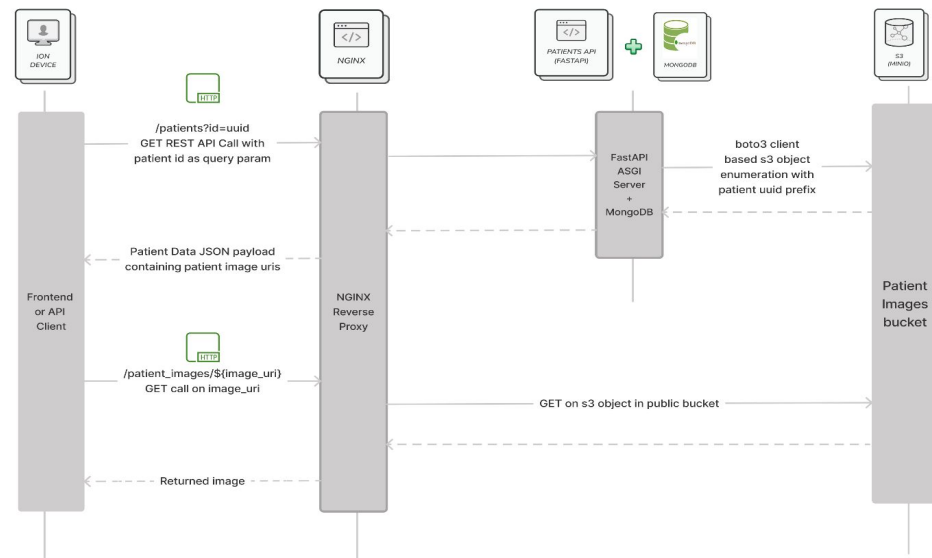
**Demo**

# Architectural Overview



# API Flow

Patient GET Detail API Flow





# Testing

- Postman route (manual and automated)
- Semi-unit-semi-Integrated Testing: Time to get async with it, lets see this code in action



# Code walkthrough



# Future Scope

- Better Frontend
- SSL connections (certificates)
- Authentication and authorization/permission model
- Pagination, Sort, Query filtering for list endpoint
- Improved Validation (for example date)
- Date+Time and local timezone thorough testing
- Add *created\_by* and *updated\_by* timestamps to aid doctors sort by order of insertion
- Alternative methods of ingesting patient data (via message bus, rpc, etc)
- PHI data segregation and security
- Horizontal scalability and ability to move to the cloud as and when needed





# Technical Design Assumptions and Tradeoffs

- MongoDB (NoSQL) choice instead of relational database
- Storing images in an object store instead of in the database itself
- Hybrid testing instead of strict unit testing approach and mocking



## **Questions/Feedback**