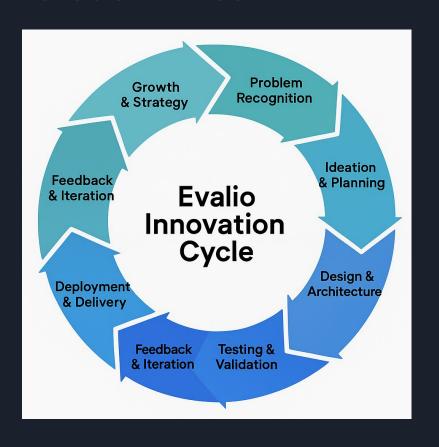


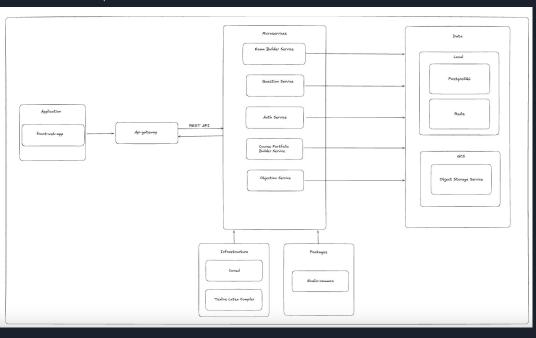
from BugBunny - T2423

Dilara Mandıracı - 22101643 Yusuf Toraman - 22002885 Eren Hayrettin Arım - 22002306 Ahmet Reşat Demir - 22002299 Mehmet Burak Demirel - 22003396

Evalio Innovation Wheel

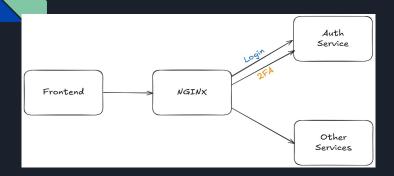


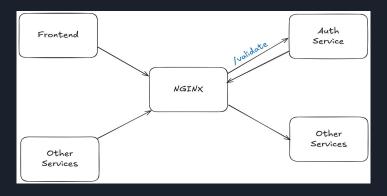
System Architecture



Client Layer	ReactJS	antd pdf-viewer react-redux axios
Communication Layer	RESTful APIs	Gateway Service Consul Redis
Backend Layer	FastApi, Docker	Authentication Service Question Service Exam Builder Service Objection Service Portfolio Builder Service
Storage Layer	AWS, Postgresql	Cloud Storage Centralized Database
Security Layer	2FA, Verification	JWT RBAC Validations API-GW

Beyond the Interface: The Hidden Work That Matters





- RBAC: Only authorized entities can access to the protected resources.
- 2FA: Login process is reinforced with 2FA.
- Registration Approval: Hierarchical approval; Admin
 Institution, Institution => Instructor and TA
- Reverse Proxy: Each request is redirected and validated via NGINX.
- Microservice: Application can be scaled up with microservice architecture.
- Consul: Enables service discovery and performs health checks.

Done **GANTT CHART** In Progress Not Started SEP ост DEC JAN FEB MAR MAY JUN PROGRESS NOV Finalize Project Topic Improving Project Idea Market Research Report 1: Project Information Form Progress Meeting 1 Report 2: Assessment of Innovation Form Progress Meeting 2 Report 3: Project Specification Document Microservice 1: Gateway Service Creation Microservice 2: Consul Integration Data Storage & Docker Implementation Frontend 1: UI Design Report 4: Analysis and Requirements Report Progress Meeting 3 Frontend 2: UI Implementation Progress Meeting 4 **Backend 1: Question Service Development** Frontend 3: Frontend-Backend Integration CS 491: Demo and Presentation Backend 2: Exam Builder Service Dev. Backend 3: Portfolio Builder Service Dev. Backend 4: Objection Service Dev. Backend 5: Analytics Service Dev. Report 5: Detailed Design Report Testing 1: Performance and Security Testing Report 6: Design Project Final Report CS 492: Presentation and Demo

CS FAIR
Maintenance

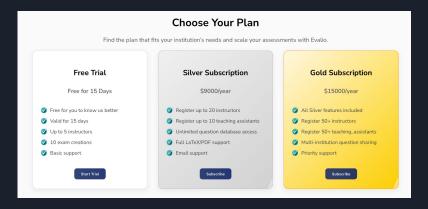
Software Health Card

Category	Status	Notes	
Schedule	Completed	Frontend and backend development fully implemented; all major features integrated.	
Resourcing	Adequate	Team effectively completed development and testing; all necessary skill sets were covered.	
Budget	No Issues	AWS usage and limited ad budget were sufficient and well-managed.	
Risks	Resolved	Security and testing risks were mitigated through final validation and stable test coverage.	
Benefits	Long-Term Potential	Expected to streamline exam preparation and administration.	
Quality	Verified	Functional and non-functional test suites passed; UI/UX best practices followed throughout.	
Security	Implemented	JWT-based RBAC, 2FA, S2S authentication, and attack surface hardening measures are complete.	
Stakeholder Alignment	Positive	Instructor and TA feedback fully incorporated; system tailored to real-world academic needs.	
Testing	Complete	45+ functional tests and 5 non-functional tests executed and passed successfully.	

Market Strategy & Future Plans

- Benchmark Tools: LearnUpon,
 HackerRank, Quizlet, Overleaf
- Unique Value: All-in-one platform, no direct competitor combines these features
- Pricing Strategy:
 - User Feedback Driven
 - Competitor Based Analysis
 - o 3 Tier Model: Free, Silver, Gold
- Expanding:
 - Share the project with instructors we know
 - Advertise the app to foundation universities
 - Government Agreements





Challenges & Successes & Lessons Learned

Deployment:

- SMTP port
- Slow machine

Architecture:

- First time usage

Real Time Communication:

 latency and gateway problems

Database Migrations:

- Version problems

Social Challenges





Architecture:

- allows independent development
- breakages did not block other party

Evalio-Common packages:

 allowed shared usage of JWT, Cache accesses, DB tables etc.

Contributions

Yusuf

- objection
- portfolio and course

modules

- general architecture

Dilara

- authentication
- objection
- admin

modules

- UI improvements

Burak

- authentication
- admin

modules

- general architecture

Ahmet

- portfolio and course creation module

Eren

- initial UI
- question pool
- exam modules

Thanks!

WE WILL MOVE ON DEMO

