

## **Origami Risk - Solution / Software Architect - Take-Home Problem**

### **Feature Flagging Service**

*Recommend but not limited to 1 hour*

#### **Background**

Origami Risk is a growing company with an increasing need for controlled feature rollouts to support safer deployments, A/B testing, and environment-specific configurations. To reduce long-term costs and maintain tighter control over our infrastructure, we've chosen to build an internal feature flagging service tailored to our specific needs. Your task is to design the overall architecture for this system.

#### **Objective**

Design a scalable, maintainable, and secure Feature Flag Service that enables dynamic toggling of features across multiple services and environments. The system should support real-time updates, multi-tenant configurations, and safe rollout strategies. Assume all usage of this service will originate from our primary product—a web application.

#### **Deliverables**

- Architecture Diagram: High-level system components and data flow.
- Design Notes (1–2 pages) in which you explain the following:
  - Design decisions
  - Follow up questions for product
  - Assumptions & trade-offs
  - How your system meets the requirements
- API Sketch: Just 2–3 sample endpoints

#### **Product Requirements**

- Supports the creation of up to 100 new flags per week.
- Handle 1 million flag evaluations per day across services.
- Ensure flag reads are low latency
- Provide audit logs for all flag changes.

**Submission** -Please submit the above as a single PDF file