

# **BookMyEvent - Assumptions & Constraints**

## **Assumptions**

- 1 Payment Service is not implemented. It is assumed that payment must be successfully completed before booking confirmation.
- 2 API Gateway is not implemented. In production, an API Gateway should route requests to respective services and handle cross-cutting concerns.
- 3 Authentication and Authorization (API security) are not implemented. Production system should use JWT/OAuth or similar mechanisms.
- 4 Client applications (Web/Mobile) are assumed to exist and make API calls to backend services.
- 5 Each microservice is assumed to own its domain logic even if currently deployed together.
- 6 Databases may be logically separated per service, even if using a single physical database instance in development.
- 7 Seat locking uses Redis; availability is derived from confirmed bookings plus active locks.
- 8 Service-to-service communication is synchronous (REST/Feign). Production systems may include async messaging where required.
- 9 Error handling, retry policies, circuit breakers, and resilience patterns are simplified for this implementation.
- 10 Observability (logging, tracing, monitoring) is not fully implemented but expected in production environments.
- 11 Scalability considerations (horizontal scaling, load balancing) are assumed to be handled by infrastructure in production.