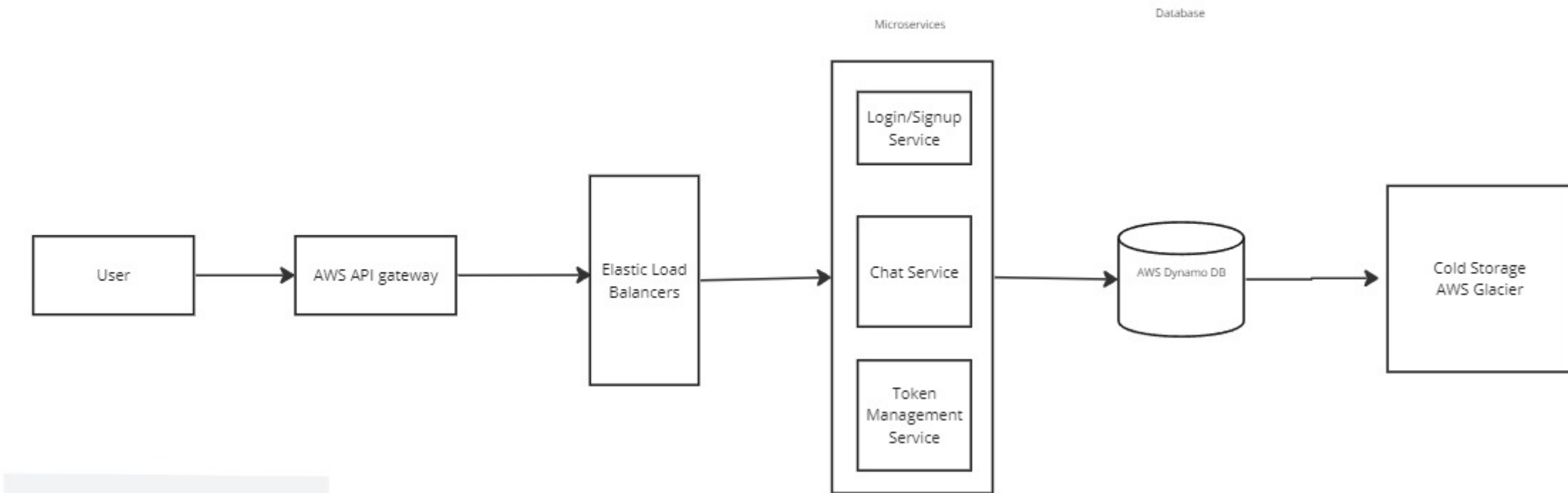


Functional Requirements:  
Conversation - Create, update(chat history), view, delete  
Login/ Signup  
Token Usage

Non Functional Requirements:  
Low latency  
Security - Login, Rate Limiter  
Scalability

Back of the envelope calculations:  
DAU - 5 M  
Message Frequency- 2 conversations, 10 questions = 20 questions/day  
Total messages =  $5 \times 10^6 \times 20 = 100M$

Storage for messages:  
100M messages - 100 Bytes -> 10GB per day  
lets say we want to store for 10 years ->  
 $10 \times 365 \text{ GB} = 36 \text{ TB for 10 years}$



API Calls:  
Login-> `get("/login",{email: , password})`  
Signup-> `post("/signup",{email,password,firstname,lastname})`

Chatservice-> `post/put("chat",{prompt,emailid})`  
post- when first message in conversation,  
put when we are adding to existing conversation

TokenUsage-> `Get(email, prompt)`