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**Synopsis:**

**Describe the system you intend to create:**

The system we are working on will allow clients to access multiple chatrooms (which we call channels). The channels will have some authentication system (The authentication service) in place to allow “All” or “Specific” clients into the channel.

There will be global independent services that will be allowed to enter any of the channels. These services we call bots. These bots listen to all the channels and if they find specific keywords (activation symbols) it will respond as intended. For example a Remind bot will listen for the key phrase “!Remind” and use the date given after to then when that date comes it will respond with a message to that user on that time on the specific channel alone.

The bots may have their own database, depending on how they are set up. Where other services will unlikely (not set in stone yet) to access, except the one bot itself.

The channels will also have their own databases since they are also services. The bots will be allowed to parse the channels database for their own necessary computation.

***What is the application domain?***

The application domain would be a website that can be accessed via the web (using mobile, pc, etc…)

***What will the application do?***

The clients will choose a channel to access. Clients will gain access to the channel if they have been permitted by the authentication system. Users will be allowed to send messages on the channel. If the user enters a specific key word phrase (activation symbol) a bot responds appropriately. For example as above explained a Remind bot will listen for a !Remind word. Then take that date given in the message. Save that date in its own database. If the date comes it will message the channel and @ the user who commanded the !Remind.

***What are the key components and how will they interact?***

* Main server.
* Authentication service.
* Channels (chat room).
* The bots that are listening to key-words.
* The database that will hold all the chat logs for a specific channel.
* Service dependent databases that will hold data for the service (the bots).
* Clients

**System Architecture Diagram**

Draw a high-level diagram here

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描述已自动生成

Figure1 System Structure

**Technology Stack**

List of the main distribution technologies you will use

* Netflix Eureka
* Firebase (NoSQL)