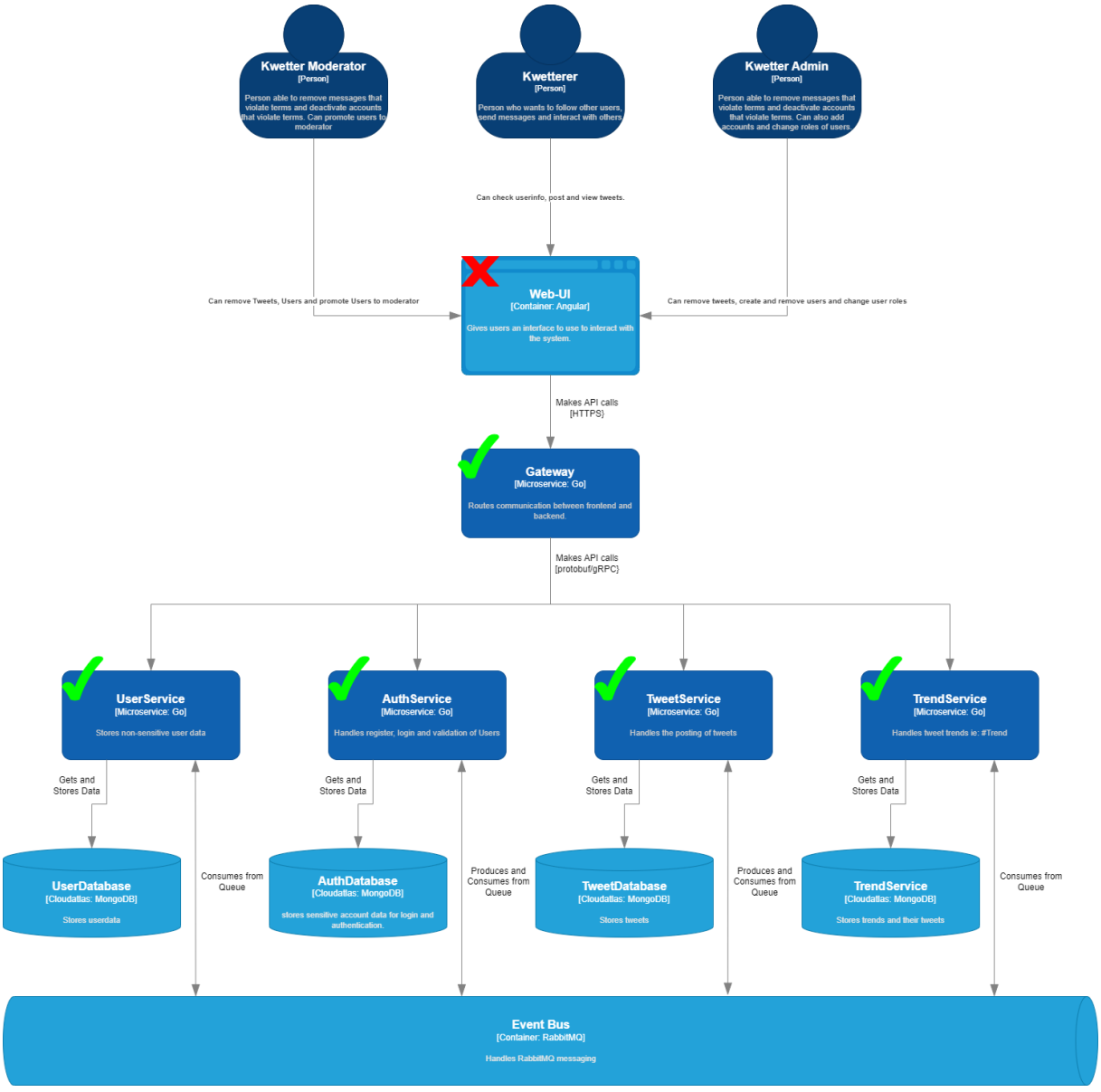
Resource Mapping



	Gateway	UserService	AuthService	TweetService	TrendService	Total
Register	1	1	1			3
Login	1		1			2
Validate	1		1			2
PostTweet	1		1	1	.5*	3.5
GetUserData	1	1	2	1		5
DeleteUser	1	1	1	1		4
Total	6	3	7	3	.5	

*PostTweet only hits TrendService when a Tweet contains a hashtag. I estimate this to be around 50% of the time.

Expected load

I expect/hope to receive around 20.000 users that make an average of around 20 calls a day. This means I should be able to handle around 400.000 total requests per day. Above is a table displaying what endpoint invokes which services. However this table fails to account for the fact that a user only registers once (generally speaking). Below I will provide some estimates to adjust for this.

Register
I hope to achieve a growth of 5% so for 20.000 that would be 5000 requests per day.

DeleteUser/GetAllUserData
Not many users will care about seeing all their data, I assume only 1% of users might be interested, this would give 1000 requests per day.

For deletion I hope to have a high retention and very low active outflow so I assume 0.5% would actively erase their data, giving 500 requests per day.

PostTweet
This is the main focus and therefore I expect nearly 100% of users to use the average daily actions for this which could amount to 20.000 x 20 = 400.000 tweets per day.

Conclusion

As can be seen in the graph above the gateway and authservice are priority when it comes to scalability. Especially authservice is important as it gets called the most. However due to the high usage of the PostTweet call the TweetService is also a concern when it comes to scalability.