### System Design

### Your task is to create a full system design for a website that is responsible for sports newsletter subscription, where users can enter the website and subscribe to this newsletter, considering the following requirements:

### The website has only one field (user email), and one button (subscribe).

### The website has only one category (Sports) for users to subscribe to.

### The expected number of users is 10 million users per day.

### The website has a potential growth after one year, where the number of users is expected to be 100 million users per day.

### Please show your justification for choosing every component in the system design, for example if you choose MySql instead of NoSql please tell us why.

1. For the backend I will be using .net core because it provides me high performance scalability for the system, using asynchronous task and read-only query  
    nodejs is another strong option but am not an intermediate with working with nodejs.
2. For database PostgreSQL because its structured, scalable with replication, efficient queries . another valid option might be MongoDB but in our case MongoDB is good with unstructured data while our system looks like it has a structured data.
3. Angular is a strong choice for front-end it has lazy loading , module structuring and many other features that can help us ensuring a reliable user experience .
4. Adding redis so I can handle the caching.
5. I should use the load balancer with multiple instances.