**Design challenge APIM (45’)**

In this exercise, you have to design a solution (HLD is enough), using whatever drawing software (Visio, Draw.io, etc.), for the following scenario:

*Contoso has built an internet facing application that allows users to place orders. The app has two channels: a mobile app and a browser app. Both must be notified about backend changes in near real time. Both channels should be able to create and query order data.*

*Contoso has a broad customer base and expects about 500+ concurrent users constantly and up to 2000/3000 during peak times (Black Fridays, etc.)*

You must respect the following constraints, imposed by the customer cloud team:

* Every internet facing asset must be protected by a WAF
* Internet API traffic must be protected by an API gateway
* Because the number of concurrent users is high, the database system must be able to support high load and configured for the best possible performance

Your HLD, must represent:

* All the components (mobile app, browser app, backend, data) etc.
* The flows and their direction (who initiates the connection, is it bi-directional, etc.)
* The protocols and ports that are used
* The security controls that you plan to enforce