Database Hosting Research

Important key factors to look for according to (5 ways to host a database, n.d.) are **Scalability**, **Cost**, **Performance**, **Maintainability**. And in our case, **Security** also plays a big role due to the GDPR compliant. Here are more factors to consider according to (Database Hosting, 2024).

Consideration	Description
Customization and Access Control	- Hosting your own on-premises database provides maximum control over hardware and user access. - Hosted databases offer less control, with limitations on customization and access.
Cost Structure	Pricing can be complex and can include a variety of factors such as storage size, number of queries, read/write throughput, and more. Make sure you understand not just the up-front costs but also the ongoing expenses and any potential additional fees (like data transfer, backups, or exceeding usage limits).
Database Technologies	Most database technologies will be available from hosts and providers. Still, it's important to understand what options are available for the database technologies you plan to use.

Scalability

Does the database need to be scalable? So, it can for example scale out and distribute the load over multiple database instances.

We don't know if we want this yet. I mean it would be cool, but would it really be necessary?

Cost

Once you know your budget, you can filter out certain hosting services for your database.

We don't know our budget yet

Performance

How fast should queries be handled? Do we need fast reads? Fast writes? Or both? How many concurrent queries. Try to answer these questions, after that it will narrow down certain databases making the choice easier.

We don't know our minimum performance yet

Maintainability

Do we want to monitor our database. What other built-in features do we want that have to do with maintainability?

What do we want in the area of maintainability?

Security

Do we want built in security functionalities? Think of encryption, role-based access (for if there will be multiple levels of users using the database), logging, recovery options, for, for example, if the data gets corrupted.

What security options do we need/want built in?

Customization and Access Control

A local database offers full control; however, it might not be as convenient as a hosted database. But a hosted database might offer less control. When choosing a host for your database, make sure you have the amount of control that you expect.

What level of control do we want/need in the host?

Database Technologies

Not all hosting providers support every type of database. Therefore, it's essential to determine in advance which database we plan to use. Once we have that information, we can narrow down our choices of hosts accordingly.

We don't know which database we will use yet