

# Lernaufgabe: Comparing Frameworks

## Ausgangslage:

Wir werden verschiedene Frameworks ausprobieren und auswerten. In dieser Card geht es ums Comparing Framework. Viel Spass!



NEXT.js



Blitz

Zeitbedarf: 6 Lektionen

Hilfsmittel:

Methode/Sozialform:



Lernziele:

- ✓ Verschiedene Frameworks analysieren
- ✓ Alle

Legende:  Einzelarbeit,  Partnerarbeit,  Dokumentation,  Code

## Inhaltsverzeichnis

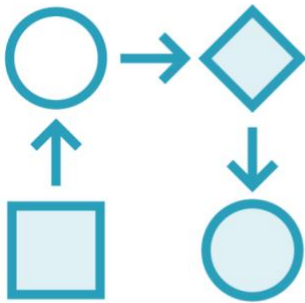
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## 1 Aufgaben

Wir werden nun die einzelnen Systeme nach den beschriebenen Kriterien austesten, d.h. wir werden mit den jeweiligen Tutorials und Dokumentation arbeiten und alle einen Blog entwickeln. Im Idealfall arbeiten wir in vierer – Gruppen.

- Das Projekt muss mit GitHub / GitLab verwaltet werden und muss danach auch
- Deployed werden können auf einer IaaS oder PaaS!
- Erstellt eine Dokumentation mit einem Summary zum Ecosystem

### 1.1 Ecosystem



#### A Few Reminders:

- Infrastructure and wide usage are essential to foster growth and support for a framework
- Existing software on your machine, CLI tools, PATH requirements, and other Infrastructure is part of a framework's Ecosystem
- How long a framework has been available and how popular it is are important factors to consider
- Great documentation is essential to training a team (or yourself) to work with a framework
- Bug fix frequency and developer support will affect your ability to continue to use a framework
- It's important to consider how easily you can migrate to a new framework if necessary

### 1.2 Ecosystem Matrix

- Erstellt eine Matrix mit folgendem Kopf

Name	Age	Usage	Documentation	Issue & Bug Fixes	Migration

## 2 Comparing Performance

- Wir werden in diesem Teil die Performance ausloten
- Dabei könnt ihr das Lighthouse Tool von Google benutzen



### A Few Reminders:

- Some frameworks support server-side rendering, which can be great for client-side performance
- Our "Hello World" apps performed very well for all frameworks (95-100 Lighthouse ratings)
- Abstraction layers may also impact performance



### A Few Reminders:

- There is no true apples-to-apples comparison, each performs better than others in different situations
- None of our frameworks are inherently slow
- Your asset bundle size, backend, and network performance will likely have the greatest impact on performance

- Erstellt dann eine Performance Matrix nach folgendem Muster

### 2.1 Performance Matrix

Name	Server-Side Rendering	Single Page App (no server or page generation)	Static Generation	Serverless Affinity

## 2.2 Questions to ask



### Questions to ask:

- Do you want to deploy serverless?
- Does your project call for server-rendered pages?
- Do you just want an SPA?
- Would you prefer a non-specialized framework that works well in most situations?

## 2.3 Comparing Business Models and Pricing



### A Few Reminders:

- There are several costs associated with each framework that should be considered
- Infrastructure costs may differ depending on if a framework is serverless or not
- Licensing costs may vary, from one-time fees to subscription models
- Free and Open-Source software is free to use, but may lack some of the advantages of a paid framework

## 2.4 Summary of . . . . .

- Erstellt in der Dokumentation ein Summary eures Frameworks!
- Erstellt eine Matrix des Business Models and Pricing wie folgt:

Name	Infrastrukturre Costs	License Costs	Biz: Avg (Average Starter Plan cost/mo)	Small App Costs	Large App Costs

## 2.5 Evaluating Your Project's Business Needs



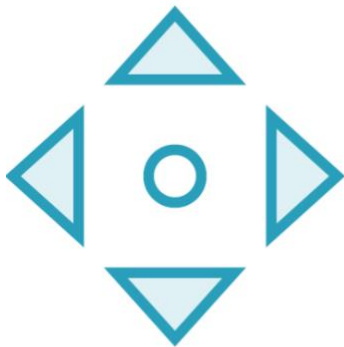
### Questions to ask:

- How much certainty regarding a framework's pricing model do you require?
- What is your risk tolerance regarding emerging technologies?
- How important is it that your project be free of specific cloud services?

### Aufgabe

- Schreiben Sie auf was spezifisch für ihr Projekt gilt!

## 3 Comparing Scalability



### A Few Reminders:

- The deployment model of a framework may be more or less restrictive, impacting how much control you have over it
- Needing to set up servers manually or being able to use a Managed Service Provider with a framework can affect how your app grows

### 3.1 Scalability Matrix

- Erstellen Sie nun eine Scalability Matrix nach folgendem Muster:

Name	Horizontal Scaling	Host Provider Headroom	Additional Notes

### 3.2 Evaluating Your Project's Scalability Needs



**Questions to ask:**

- What features are you willing to build on your own?
- Would you prefer to spend less effort up front at the risk of having less control later on?
- Do you require more control over your framework, even if it costs you more time?

- a) Schreiben Sie auf welche Bedürfnisse für ihr Projekt notwendig sind

### 4 Takeaways

- a) Schreiben Sie kurz auf welche Takeaways Sie mitnehmen!