



Crosscutting Concepts

Software Architecture

Crosscutting Concepts

Development concepts

- Continuous Integration/ Continuous Deployment (CI/CD): Automate the software delivery process to allow for frequent and reliable code changes and deployment.

Architecture and design patterns

- Event-Driven Architecture: Use an event driven model to separate services and ensure asynchronous processing of image uploads.

Safety and security concepts

- Integration of logging mechanisms and monitoring tools throughout the development lifecycle, ensuring that relevant information is captured consistently and can be analyzed to identify and address issues effectively

Concepts form the basis for conceptual integrity (consistency, homogeneity) of the architecture. Thus, they are an important contribution to achieve inner qualities of your system. Some of these concepts cannot be assigned to individual building blocks (e.g. security or safety). This is the place in the template that we provided for a cohesive specification of such concepts..

Define three crosscutting concepts. You can change the actual concepts if you want to.

Help: <https://docs.arc42.org/section-8/> & <https://biking.michael-simons.eu/docs/index.html#section-concepts>

Decisions

Context	Decision	Consequences
We need to choose mobile app development frameworks that allows us to build the app for iOS and Android platforms natively.	We will use Swift and Kotlin for our mobile app development.	native programming languages => platform-specific features & achieves better performance However => maintaining two separate codebases => increased development time & resources.
As our app will be available to users globally, including in the European Union, we need to ensure that we comply with GDPR, which sets out requirements for data protection and privacy.	We will appoint a external Data Protection Officer (DPO). The DPO will be responsible for overseeing our data protection strategy and its implementation to ensure compliance with GDPR requirements.	ensure adhering to GDPR. DPO will serve as the point of contact between us and any Supervisory Authorities who oversee activities related to data privacy. However => additional costs for hiring DPO.
Our app needs to offer advanced editing tools. Instead of building these tools from scratch, we plan to integrate with a third-party service.	We will integrate with Pixlr, a cloud-based photo editing platform.	provide users: wide range of editing and filtering tools without leaving our platform. However => ensure integration is seamless & does not compromise user experience or app performance.