

Comparing the Different Mindsets between Application Developer and Framework Developer

Long Story Short

For application development, a developer is specifically focused in fulfilling the client requirements. But, the framework developer, on the other hand, needs to have broader level of thinking to include most of the related domains by providing extension without modification in the framework.

Details

In the project, we were concerned with the framework development for businesses involving check in / check out process such as car rental system, book rental system, library management, asset tracking etc. So, for the framework development, we were more focused on filtering those features which can be common to all those domains i.e. non-changeable. During framework development, I was more involved in implementing the save products, customers, check in, check out records. And, also we included the different notification features as strategies after the checkout of product(s). To keep track of the logging of the errors, warnings and debug related information during execution, we used console, file and database based loggers. The transaction related database operations were implemented with command pattern which enables rollback features in case an exception arises during half way of an operation in same transaction scope. Also, protection proxy was used to control the access to checkout/check product in related operations. To enable the different notification features to user after the checkout of product(s), we used strategy pattern. The loggers were implemented as decorators which can be implemented as combination of them by the application developer. While developing the framework, we had keep in mind the high level scenario not just limited to single application – for example, some applications may charge for checkout while others may not.

During the application development, we were more concerned with the car rental system. The product entity was extend as the Car and added more car-specific features. The validations were more related to car rental business and were handled in the application side. So, in summary, the mindset for framework development is more focused with the complexity reduction, performance, and optimization, reducing development and providing cross-cutting services. On the other hand, the mindset for application development is more focused with meeting business requirements and rules equipped with business knowledge with less criticality of technical knowledge than framework development.