

DMVault

Simple, Secure, Self-Building Data Management

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PROBLEM

Schools, hospitals, and businesses of all shapes and sizes have data that they rely on to operate daily. The problem is that the current data management solutions (shown below) these businesses use don't necessarily meet their needs. Current solutions are either too simple or restrictive or their too complex, expensive, and bulky. Additionally, most of them don't have adequate security features. 90% of small businesses don't have proper security¹ for their or their customer's data and 60% of small businesses that suffer a cyber attack go out of business within 6 months¹.



REFERENCES

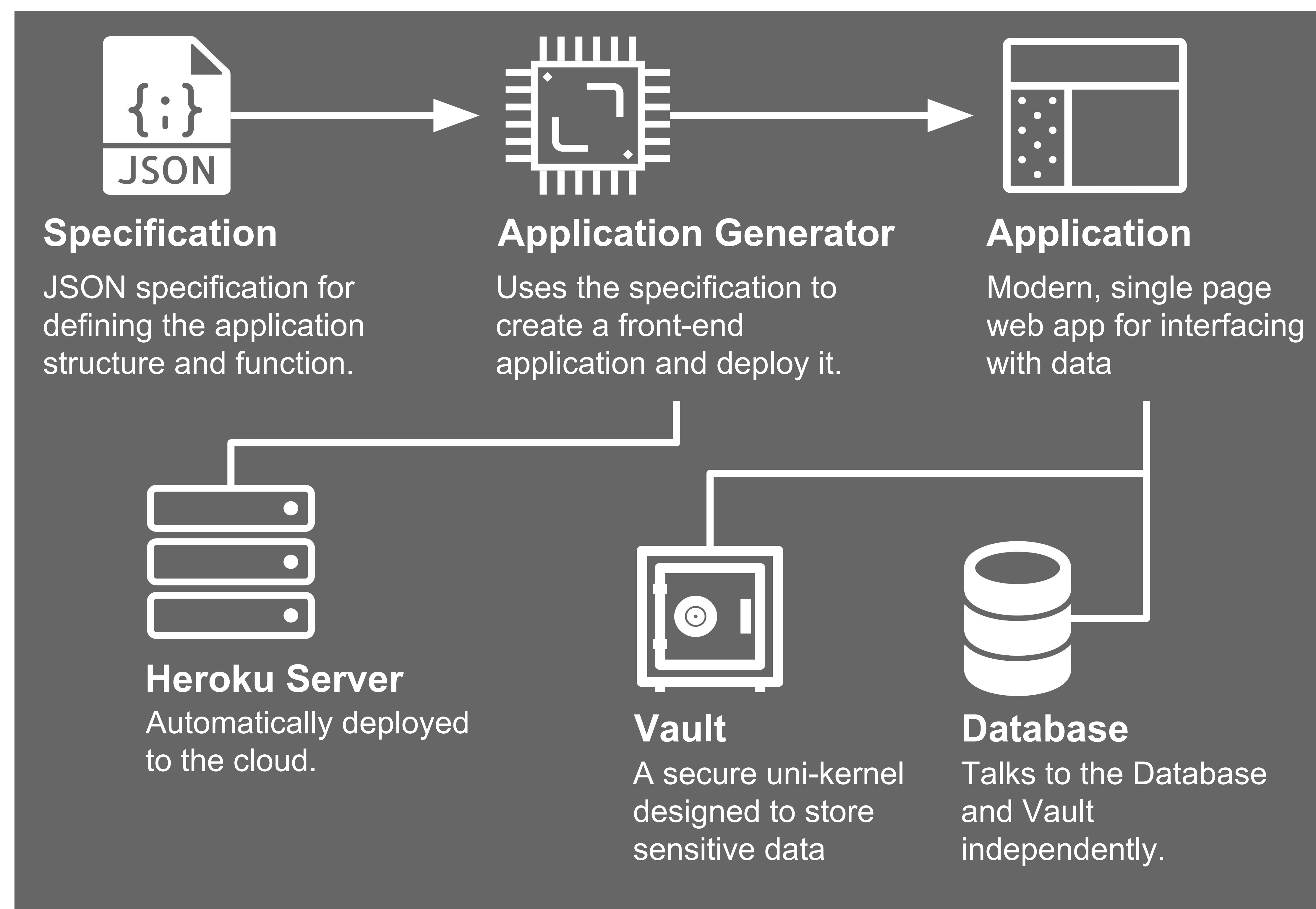
1. <https://upscapital.com/product-services/cyber-liability-insurance/>

OBJECTIVE

The objective of this project is to design a system that would allow small and medium size business to easily and affordably build effective, custom, and secure data management software.

SYSTEM DESIGN

Our approach when designing the system was to allow continuous deployment and software changes without sacrificing ease of use. Edit the JSON specification, run the generator, boot up the Vault and you're ready to go. No code required.



SOLUTION

DMVault's solution uses a simple specification that describes how the businesses' data should look and interact. It then uses this specification to generate a frontend application, a backend server, and a database API. It deploys all these components to the cloud. DMVault also provides Vault which is used to separately store sensitive data such as social security numbers. Vault is housed on hardware chosen by the business at their physical location.

FUTURE WORK

We've designed DMVault to be extendible. This means that overtime, we'll be able to add more advanced data management features that allow businesses to define more complex interactions and elements while retaining the same top-notch security. Additionally, we hope to allow for 3rd party services to build integrations into DMVault including custom deployment and data manipulation options.