Technologies have been thriving in the last couple of decades. From end user / consumer perspective, much more powerful and smarter devices are available. Other than PC / desktop computers, more convenient devices become much more prevalent, such as smart mobile phones, tablets, watches. General public tends to have the devices anywhere and access information anytime. On the other side, Cloud computing becomes the hottest topic regarding processing and storing information on backend. Couple of tech giants joined the rush into Cloud. Such as, AWS from Amazon, Azure from Microsoft, GCP from Google, Ali Cloud from Alibaba.

Techniques are evolving faster than ever. “Mobile first” principle has been adapted widely in the consumer market. The Native vs Cross-Platform App development debate seems never ending. While in the enterprise market, web applications are taking over much more portion. That triggers the “frontend framework war”. Developers have more options based on requirements and audiences, E.g., React, Vue.js, Angular. And much more backend frameworks, languages and storage solution become more mature, and more are designed for specific scenarios. Such as Python + Flask, Java + Sprint, ASP.net + C#. Comparing to the last two that fit complicate enterprise application better, Python and Flask are better candidate for small businesses due to its popularity, talent availability, short development time and ease of maintenance.

Regarding NZ horse racing agency situation, there are multiple roles, and the permissions vary based on their roles. The staff need to collaborate with each other to get the jobs done by following specific workflows. An application / system with all those rules built in will make daily based jobs much easier and more accurate to improve their customer experience. It will also make the organisation more efficient and in turn save running costs.

Back to the project design and implementation, web application works better for this multiple-user scenario. More benefits it brings is ease of deployment and accessibility on any smart device without annoying installation process. Considering it is a typical CRUD (Create, Insert, Update and Delete) project, Python and Flask are able to cover all the requirements.