Alternative Analysis

There are many different approaches to achieve the aim of improving the loyalty of customers in an airline company, including third-party SaaS service, open-source solutions, and independent development.

First of all, there are many third-party programs provided as a SaaS to use. The benefit of introducing third-party loyalty program services is that they are easy to integrate and do not need to maintain server-side programs. Additionally, the service provider usually also provides solutions to problems such as scalability and security. That means companies use those services can expect a relatively reliable service at a meager budget. Seems fantastic. But in reality, they only provide elementary functions such as simple user registration and credit management. Less function might be the side-effect of less time consuming and less money spending on the loyalty program. In fact, they are excellent choices for small-scale businesses that are not able to or not worth developing their own loyalty system but lack of flexibility for bigger sized companies who use the system intensively.

Apart from that, there are some open-sourced loyalty program implementations. Some of those are remarkably flexible and consist of many useful functions. If the only goal is to complete the functions, they might be an excellent choice. But there are potential risks for using these open source solutions. The most significant one is the problem-solving process for open-source projects when it comes to security problems. Usually, when someone realized and reported a security breach, it is published to the public. The system would expose to the risk of attacking during the term of bug-solving. That means some hackers could exploit those security issues reported and make services using those open source systems compromised before the security issue is solved. For example, the peak of reports of utilizing the OpenSSL heartbleed bug was during April of 2014. attacks continue to appear for a while even after this bug was fixed on April 7th (Evans, Pete14 April 2014). The loyalty program of an airline company is supposed to be high security, and customers' privacy is considered crucial, so undertaking the risk of high-security risks is not an option.

After our discussion, we figured out a solution that would neither waste too much of our time and effort to build our service from scratch nor take unpredictable risks by introducing something we are not familiar with. The plan is making use of the mature open sourced framework named Django to develop our own system. Because there are countless projects depending on this framework, it is more likely a beaten path to going through; therefore, the risk could be minimised.

References

Heartbleed bug: 900 SINs stolen from Revenue Canada, CBC News Some of the details are in the video linked from the page.