ADR

**Title:**

Type of Application

**Context + Problem Statement:**

We need to decide on the type of application this will be, making sure it would be cross-platform compatible.

**Decision Driver:**

* To allow users to access the application on different devices.
* To ensure different types of users (library member, branch manager, etc) can access the application.

**Option:**

Web-based application. Mobile application. Progressive web app. Desktop application.

**Considered Options:**

* Web-based application: Web application stores the remote server, and users can access the website through the browser interface (TechTarget, 2023).
* Mobile application: Mobile application is a software application developed specifically for mobile device users (outsystems, n.d.).

**Decision Outcomes:**

Chosen option: web-based application.

This is because web-based applications can be used on desktop and mobile devices, which allows a wider range of users. Staff can find it easier to manage certain functions using a website rather than a mobile application, which means it's compatible with all users.

This decision is also based on time constraints and limited knowledge.

**Consequences:**

Good, because of its cross-platform compatibility.

Good, because it's cost-effective and can be easy to develop because only one type of application needs to be developed for desktop and mobile rather than one or the other.

Good, because updates are server-side and don’t need to be downloaded.

Good, because managing the library system through the browser can make it better for the staff members' experience.

Good, because it allows both library and staff members to use the application without having to make another application.

Bad, because an internet connection is required for web-based applications, limiting user access at times.

Bad, because most people prefer mobile applications and tend to spend more time on them (Buck, 2018).

**Confirmation:**

After confirming the architecture.

**Pros and Cons:**

Pros:

* Cross-platform compatible.
* Cause effective and easy to develop.
* Server-side update.
* Good for staff experience to manage.
* Good for user experience.
* Both library member and staff members can use the same application without having to make a new one.

Cons:

* Internet connection is required for all the time.
* People prefer mobile applications.

# References

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