Guide to Designing Data-Intensive FinTech Applications

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Introduction to Fintech apps

Designing Fintech software - or any data-intensive application - can be overwhelming at the start.

At **unosquare**, we've tackled the complexities of more than 700 projects, giving us deep insight into the common challenges and proven strategies for success.

In this guide, we'll walk you through the most frequent design hurdles, essential strategies to consider during planning, and best practices to follow once you're ready to begin the design process.

Challenges of Designing Fintech Apps

Designing a data-intensive application can feel overwhelming at first. Understanding the common challenges ahead of time allows you to proactively plan and avoid costly missteps. Here are the five most frequent challenges teams face when designing financial solutions.

Data density 1

Once you've defined your goals and have a clear understanding of the problems you're solving and the audience you're targeting, you're ready to begin the **unosquare** UX 8-Step Process. This proven framework is something we guide our clients through every day. [Learn more **here**.]

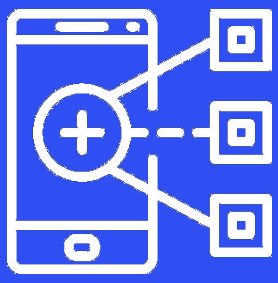
Security 2

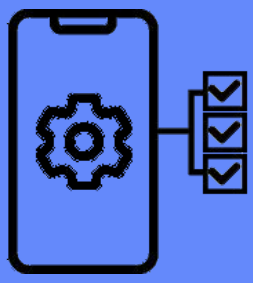
Security is essential for any application—but when handling sensitive data like personal financial information, it becomes absolutely critical. Users need full, secure control over their bank accounts and credit/debit cards. Prioritizing security not only protects your users, but also builds trust and peace of mind, which are vital to a successful user experience.

Over the past decade, consumer preferences have shifted dramatically toward mobile devices. In fact, as early as 2015, mobile banking became the most popular banking method (BBA).

With the dominance of mobile in customers' lives, it's crucial to consider where and how users will access your solution.

Designing with mobile-first functionality ensures a seamless, intuitive experience tailored to your users' needs - wherever they are and whatever their needs.





Clear presentation of tasks 3

Financial applications can often be complex and difficult to navigate, leading to a stressful and time-consuming user experience. A key goal in UX design for financial solutions is to help users accomplish their tasks quickly and effortlessly. Since most users only engage with a small portion of available features, it's essential to present core tasks clearly and prioritize usability over feature overload.

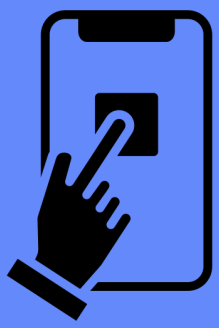
Guiding Design Strategies

Now that we've covered common challenges, let’s explore key strategies for success. Before diving into design, it's crucial to have thoughtful discussions around the best approach for both your team and your end users.

Below are a few guiding design strategies to help you create a more effective, user-focused financial application.

Data navigation vs. data search 1

While some may debate the necessity of including search functionality, at **unosquare**, we believe it’s essential to the user experience. Research consistently shows that users rely on search—especially on mobile devices. Given that most people access financial applications via mobile, offering a robust search function isn't just a nice-to-have—it’s a key feature that supports usability and efficiency.



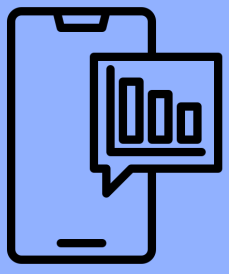
Accessible support 2

Financial institutions often limit or hide contact options to manage message volume, but this can backfire. It prevents users from sending attachments or chatting in real time—key features for resolving issues efficiently.

When support teams are overloaded and users face long wait times, it leads to frustration and erodes trust in the company.

Easy filter and search 3

Financial applications often present users with vast amounts of data. By offering intuitive filter and search options, this data becomes more manageable. For instance, when users view their transaction history, differentiating incoming and outgoing transactions visually, along with providing search or filter capabilities, enhances the user experience. These features not only improve usability but also build trust in the financial solution.

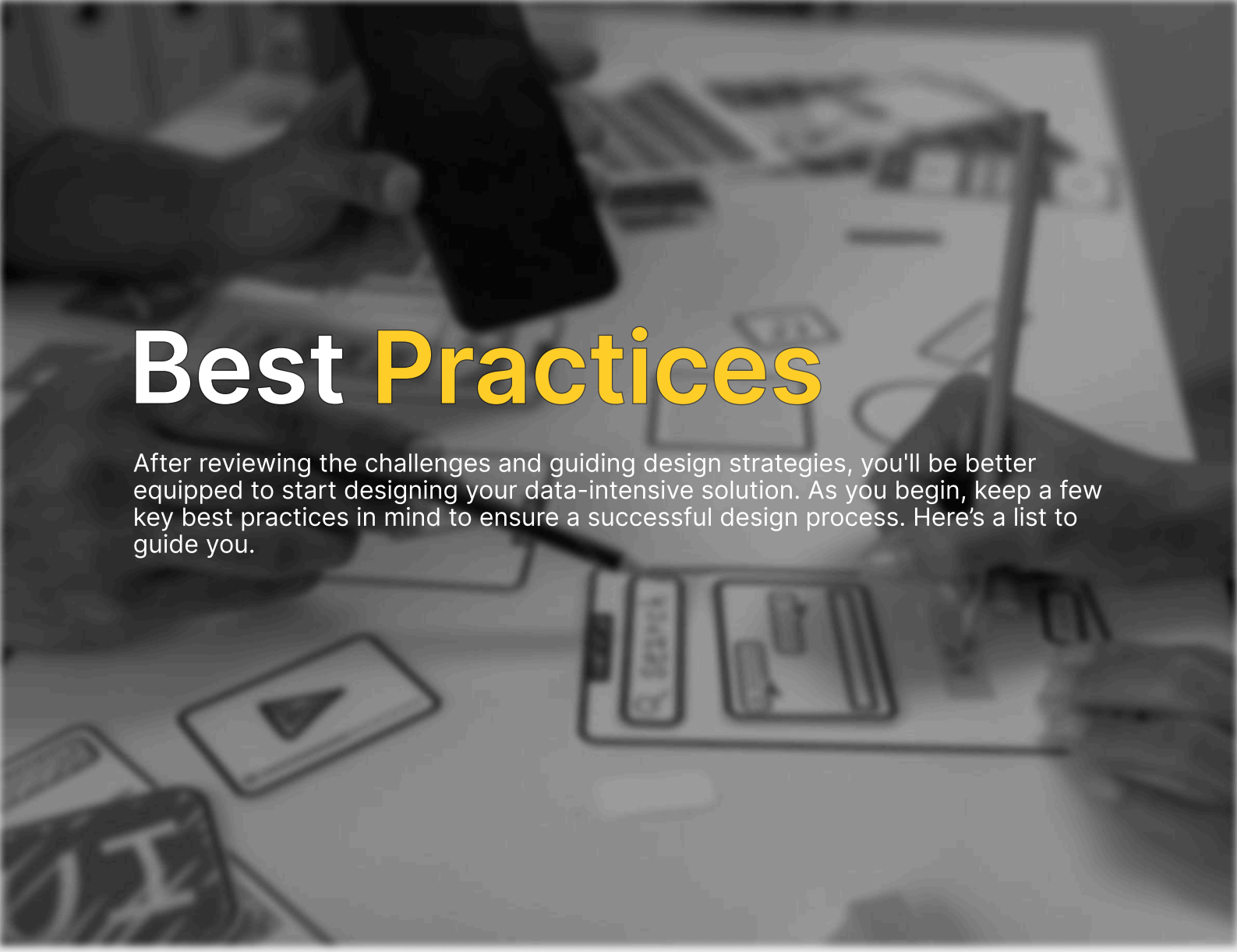


Get the visualization right 4

When designing a dashboard, it's essential to prioritize the end-user by choosing data visualizations that are easy to understand. Different data sets require specific visualization methods. For instance, a monthly report might use a line graph to highlight spending trends, while expense categories are best displayed in a color-coded pie chart for quick identification of the highest spending areas.

Simplify - do more with less 5

Simplicity allows UX designers to do more with less, reducing cognitive load and directing users' attention to the most important details. For example, in a transaction list, incoming transactions can be highlighted to stand out, while outgoing ones can remain in the application's default colors, since there are typically more outgoing than incoming transactions.

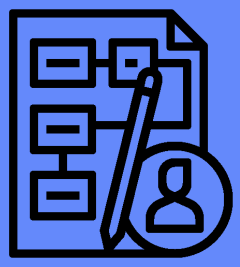


Best Practices

After reviewing the challenges and guiding design strategies, you'll be better equipped to start designing your data-intensive solution. As you begin, keep a few key best practices in mind to ensure a successful design process. Here's a list to guide you.

Detailed user research and persona (development) 1

Start by identifying the user personas who will interact with your financial solution. With these personas in mind, create workflows and journeys that address their unique needs. Key considerations include primary and secondary tasks, success/failure metrics, varying requirements for different users, and how users will utilize the data.

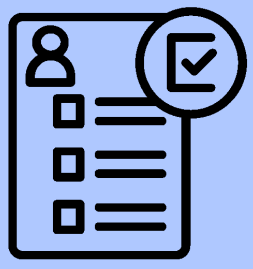


Modeling of key user scenarios and tasks 2

Designing a data-intensive solution can be overwhelming for any team. To simplify the process, focus on identifying key work areas and user scenarios. By modeling these scenarios and tasks early on, the design process will flow more smoothly, creating clear sections of work for your team.

Ongoing user validation 3

Throughout the design process, it’s crucial to keep the end user in mind. An effective way to do this is through ongoing user validation—continuously involving users at each step and incorporating their feedback and suggestions. This ensures the final user experience is tailored to their needs.



Implement as a single code base 4

Maintaining feature parity across multiple codebases is inefficient, costly, and results in a suboptimal user experience. When designing your solution, it's important to consider this challenge and define a technology strategy that ensures a seamless experience across multiple devices.

Performance 5

Performance is crucial for any technology solution, especially when dealing with data-intensive applications. Given the large volume of data being processed, maintaining high performance can be challenging. To optimize this, ensure your team designs the solution to send only the necessary data required for display. This will reduce load times and enhance the overall user experience, making it faster and more efficient.

Need help designing a data-intensive application?

Schedule a free 30-minute consultation to explore examples of these strategies in action and learn how to apply guiding principles to your own solution.

Learn more at unosquare.com