첨부 1 2026 Financial AI Challenge — Proposal

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(* 필수항목)

1. Service Name*

Financial Bridge: My AI Financial Contingency Plan for Unexpected Moments

2. Core Idea Summary*

• **Target Users:** People living alone who primarily manage their own financial schedules, including rent, credit-card payments and insurance premiums.
• **Concept:** Just as financial institutions maintain Business Continuity Plans (BCPs) to continue operations during emergencies, individuals also need a contingency plan for their personal financial lives.
• **Problem:** Even when an unexpected event occurs—such as hospitalisation, temporary loss of income, loss of a smartphone or a sudden large expense—financial obligations such as card payments, rent and insurance premiums continue as scheduled.
• **Solution:** AI analyses the user's regular financial activity and transaction history, combines this with spending priorities defined by the user and the selected emergency scenario, and organises the actions that should be checked within the next 3, 7 and 30 days.
• **Use of AI:** Classification of recurring transactions, incorporation of user-defined preferences, interpretation of calculation results, generation of scenario-specific financial contingency plans and plain-language explanations.
• **Data:** The MVP uses synthetic transaction data. A future service could, with user consent, connect banking, card and insurance information through standard Financial MyData APIs.
• **Differentiation:** Rather than focusing on wealth management or financial-product recommendations, Financial Bridge applies the concept of a personal-finance BCP to periods when users may be temporarily unable to manage their finances themselves.
• **Future Expansion:** Integration with official information from financial institutions and public agencies, emergency-contact notifications, and expansion to utilities, telecommunications and housing-related schedules.

3. Problem Definition and Background*

The idea began with a simple question inspired by Business Continuity Plans (BCPs) used

by financial institutions. Financial institutions prepare in advance so that operations can continue when IT systems fail or disasters occur. This raised a question: **what does an individual have in place if they suddenly become unable to manage their own financial life?**

Under normal circumstances, managing financial schedules is relatively straightforward. A person can check when rent is due, review upcoming credit-card payments and make sure insurance premiums have been paid. However, when someone is suddenly hospitalised, experiences a delay in salary, loses a smartphone or faces an unexpected large expense, financial obligations that normally require little attention can become difficult to manage all at once. Payment dates and automatic debits do not stop simply because the individual is temporarily unable to manage money as usual.

For this reason, the service initially focuses on people living alone who manage most of their finances independently. Rather than giving financial passwords to family members or friends in preparation for an emergency, I considered it more practical for users to organise only the financial schedules and information they consider important in advance. Depending on the situation, selected information could also be shared with a pre-designated person.

The service was designed primarily for mobile use because many people already manage their finances through smartphones, and an emergency tool should be accessible without separate equipment or complicated procedures.

The MVP is implemented as a web service. If developed into a full service, the goal would be to integrate it naturally into a financial institution's application or a Financial MyData service.

4. Service Concept and Differentiation*

Financial Bridge is not intended to be a service that users open for the first time only after a problem occurs. It begins by understanding the user's normal financial activity in advance.

The system reviews transaction names, amounts and recurring patterns that appear on similar dates each month and uses AI to estimate whether they represent rent, insurance premiums, telecommunications bills or subscription payments. Users can correct classifications if necessary and modify the next payment date and amount to reflect their actual circumstances. They also determine which expenses they consider **essential** and which can be **deferred if necessary.** The AI does not independently decide which payments matter most; instead, the contingency plan reflects priorities explicitly defined by the user.

The user can then select one of four emergency scenarios: **14-day emergency hospitalisation, temporary income interruption, smartphone loss and account protection, or emergency housing repair and major unexpected expenditure.** Financial Bridge calculates how the user's available funds are expected to change based on the most recently confirmed dates and amounts, while also reflecting factors such as payments requiring manual transfer, delayed salary income or unexpected additional expenses.

For example, even if the user currently has enough money to make a credit-card

payment, the service does not stop at stating that the payment is possible. If making that payment would leave insufficient funds for the next rent payment, it identifies the next problem before it occurs. Existing financial applications often show "what money and financial products I have now," whereas Financial Bridge asks a different question: **"If I could not manage anything for the next few days, what would become vulnerable first?"** This question forms the basis of the entire service.

5. Data and Generative AI Model*

Financial Bridge is not designed simply to measure how much a user spends each month. More important is connecting otherwise separate financial events into one continuous timeline—for example, whether enough money will remain for rent after a credit-card payment or whether the user can cover the next expense if salary income is unexpectedly delayed.

The service therefore uses information such as transaction date, merchant or payee, amount, inflow or outflow, and recurrence pattern. If developed into a real service, banking, card and insurance information could be retrieved through standard Financial MyData APIs after obtaining user consent. Combining this information with user-defined categories such as **essential expenses** and **deferrable expenses** allows the system to reflect different priorities even when users have similar balances or transaction amounts.

Gemini AI is designed to interpret and organise the transaction data. It first evaluates whether recurring transactions are likely to represent regular expenses such as rent or insurance premiums. After an emergency scenario is selected, it interprets the user's priorities together with the calculation results and organises what the user should check. Rather than presenting a simple list of numbers, the output is structured as **Immediate Actions → 3 Days → 7 Days → 30 Days**, making the contingency plan easier to follow even for users without strong financial knowledge.

However, I considered it risky to allow generative AI itself to calculate monetary amounts or dates because hallucinations could produce plausible but incorrect numerical results. For that reason, changes in balance, the first date of a funding shortfall and the amount required are determined first by a separate deterministic calculation module, while Gemini AI focuses on interpreting and explaining those confirmed results. An additional validation layer excludes any AI-generated statement containing a number that does not match the deterministic calculation.

The concept also includes one pre-designated emergency contact for situations in which the user may be unable to access financial applications personally. Only information explicitly authorised by the user would be shared through a service such as KakaoTalk. Rather than transmitting account numbers or the user's entire financial position, the notification could simply state, "There are financial schedules that need to be checked this week," together with only the information previously authorised by the user.

Use Case	Role of AI / System
Understanding normal financial activity	Classifies recurring transactions
Reflecting user preferences	Incorporates spending priorities and emergency scenarios

Accurate calculations	Separate calculation module determines dates, amounts and funding shortfalls
Contingency-plan generation	Gemini AI translates results into plain language and 3-, 7- and 30-day actions
Emergency-contact support	Prepares only the authorised information to be shared with the designated contact

6. Expected Benefits and Future Expansion*

Financial Bridge is most valuable when a user does not have the time or capacity to check multiple financial applications. Instead of moving between several apps and wondering whether something has been missed, the user can see which financial obligations require attention. More importantly, the service is designed to identify what may become a problem several days from now, rather than simply identifying what is already wrong today.

The concept could also have value for financial institutions. Instead of notifying customers only after a payment fails or delinquency begins, a financial institution could use the service as a form of preventive consumer protection by identifying potential financial pressure before the customer reaches that point.

A user could also designate one emergency contact in advance for situations in which they are unable to access their phone. Within the scope previously authorised by the user, a message such as “There are two financial schedules that need to be checked this week” could be sent through KakaoTalk or another communication channel. The designated person would not receive authority to move funds or modify contracts.

The potential user base extends beyond people living alone. The service could also support older adults living independently, young people entering the workforce, freelancers, or young adults with family-care responsibilities who may find it difficult to manage financial schedules alone. In the future, the concept could expand to telecommunications bills, utilities and housing contracts, evolving from a **personal-finance BCP** into a broader **personal-life BCP**.

7. How Financial Bridge Would Work in Practice

Consider a working professional living alone. The user has previously marked credit-card payments, rent and insurance premiums as essential expenses, while identifying OTT subscriptions and gym fees as expenses that could be reduced if necessary. Based on previous transaction data, the AI has also identified approximately when rent is paid, the typical size of the credit-card bill and which payments recur regularly.

Now assume that the user is unexpectedly injured and hospitalised for two weeks. Financial Bridge does not immediately attach warnings to every expense. If the current balance is sufficient to cover rent and insurance premiums, those payments remain unchanged. Instead, if the upcoming credit-card payment would leave the user with insufficient funds to cover the following rent payment several days later, that future shortfall is shown first. If the hospitalisation continues, the service also prompts the user

to review recurring expenses that are not immediately necessary.

If the user is unable to access their smartphone, only necessary information is shared with the emergency contact designated in advance. The system does not transmit the user's account number or total assets. Instead, it provides a limited message such as "There is a financial schedule that needs attention this week," together with only the information the user previously authorised.

Financial Bridge is not intended to take control of the user's money during an emergency. Its purpose is simpler: **"To bring back the financial tasks that are easiest to miss during a crisis, using priorities that the user defined in advance."** Just as financial institutions use BCPs to prepare for disruptions, individuals can also benefit from having a small continuity plan for their own financial lives.