

Appendix Chatbot Interaction and Questionnaire

1. Baseline

[Fact]

- How much is your monthly income?
- I see. How much have you saved so far?
- Do you have any additional sources of income? If so, how do you earn this additional income?
- I see. By the way, do you have any student loans or other debts? How much do you have left to pay?
- Got it. I'm curious, how much do you spend on housing or car expenses per month?
- How much do you spend on credit card payments each month?
- I'm curious, which category do you spend the most on each month? For example, food, housing, or hobbies.
- Understood. What is the approximate asset size of your parents?

[Opinion]

- Do you think investing in stocks is risky? I'm also curious if you currently invest in stocks, and if so, how do you think one should invest?
- I see. In that case, what are your thoughts on cryptocurrency? Do you think it's worth investing in?
- What do you think about borrowing money for consumption? Specifically, do you think it's appropriate to take out a loan for investment purposes?
- Alright, I see. Do you trust public pensions for your retirement, or are you preparing for retirement in other ways?
- Got it. In your current financial situation, which do you think is more important, saving or investing?
- I'm curious, do you think buying lottery tickets is a financially wise choice? Why do you think so?
- What are your thoughts on purchasing insurance? Do you think insurance is really necessary, or do you see it as an unnecessary expense?
- How do you feel about receiving financial support from family or friends? If someone asked to borrow money from you, how would you respond?

[Emotion]

- With the increasing volatility in the financial markets, how do you feel and what do you think about your current financial situation?
- I see. What kind of emotions do you experience when you hear news about a stock market decline or a sharp drop in cryptocurrency values? Do these changes affect your investment decisions?
- Alright, I'm curious. How do you feel when you think about your or your family's financial future? What do you think is the reason for these feelings?

- In that case, how do you feel about the rising cost of living due to recent inflation and price increases? How has this situation affected your daily life?
- I'm curious. When making big purchases or spending decisions, how do you feel? How do those emotions influence your decisions afterward?
- Do you ever feel burdened or uncomfortable when discussing financial matters with friends or a partner? Or do you experience other emotions?
- How do you think your partner's financial situation has affected or might affect your emotions in a romantic relationship or marriage?
- Alright. How do you feel when you see economic inequality worsening? How do these feelings influence your life?

2. Self-Disclosure

[Fact]

- What is your monthly income? I'm a freelancer, so it varies each month, but I make around 2 million KRW on average.
 - (If similar) I see! It seems you're similar to me.
 - (If not) I see! Got it.
- How much have you saved so far? I've saved about 5 million KRW through a savings account. I've been saving for around 4 years! I'm proud of that.
 - That's great! You're saving too. Let's keep building up our savings! Let's aim for the day when we've all saved a lot of money—let's do our best!
 - (If none) I see, that's okay, you can start saving little by little. Let's aim for the day when we've all saved a lot of money—let's do our best!
- Do you have any additional sources of income? If so, how do you earn this additional income? I've been working hard on my blog, and I earn ad revenue from it. Many people these days also generate extra income from platforms like YouTube or other social media, as well as blogs!
 - (If so) Oh, you're doing [activity] as well! That's impressive. I'd like to try it too!
 - (If not) I see! It's not easy to find additional sources of income... you're right!
- How much student loan or other debt do you have left? I had to pay for my own tuition, so I have some student loans. The interest rate is low, so it's manageable, but I'm still paying 100,000 KRW per month to gradually reduce it!
 - (If they have debt) You're paying off your loans as well. I'm in the same situation. If we keep paying diligently, we'll get through it!
 - (If no debt) Having no loans is a great starting point! That's good, it means you have fewer fixed expenses.
- How much do you spend on housing or car expenses per month? I recently started living on my own and I rent a small apartment for 500,000 KRW per month.

- (If they have expenses) You're spending that much on housing/car expenses. It seems we all have a lot of fixed expenses... but they're necessary!
- (If not) You don't have housing/car expenses! That's a great way to reduce fixed costs. Housing expenses tend to be a big part of spending.
- How much do you spend on your credit card each month? I spend around 500,000 KRW per month, excluding housing costs. I'm trying to reduce my spending, but it's not easy!
 - (If spending is high) I see, it's really hard to cut down!
 - (If spending is low) I see, you really manage to keep your spending low. I should learn from you!
- I'm curious, which category do you spend the most on each month? Food, housing, hobbies, etc. For me, housing is the largest expense at 500,000 KRW. After that, I spend the most on food and transportation. Food can be quite expensive, so I'm trying to cut down on eating out.
 - (If housing) You spend the most on housing. That's similar to me!
 - (If not housing) You spend the most on food and hobbies. I tend to spend the most on housing, but those categories come next for me too. We're quite similar!
- Sometimes, when my expenses are high, I reach out to my family for support. What is the approximate asset size of your parents? A few years ago, I used to receive 300,000 KRW a month from my parents, but now I only ask for help occasionally when I really need it.
 - (If they receive help) You receive support too. It's a relief to have someone to rely on. It feels good to have a strong support system!
 - (If not) I see, you're managing your assets independently. That's impressive!

[Opinion]

- Do you think investing in stocks is risky? I'm curious if you're investing in stocks, and if so, how do you think one should invest? I'm investing in stocks, but due to market volatility, I'm a bit scared, so I only hold 5 shares in an IT company. What are your thoughts on stock investing?
 - (If) Oh, you're investing in stocks too! It seems we share similar thoughts. While volatility is a concern, it's great that you're continuing to invest.
 - (If not) I see! You're right, the market situation can be quite complicated at times.
- What do you think about cryptocurrency? Do you think it's worth investing in? I'm interested in cryptocurrency, but its volatility makes me hesitant. However, many people around me are getting into it, so I'm still thinking about it. What are your thoughts?
 - (If they share the same view) Oh, you have similar concerns about cryptocurrency! I also find it hard to make a decision due to its volatility. It's comforting to know you're thinking the same.

- (If they have a different view) I see! You have a clear stance on cryptocurrency. It's great to hear different perspectives. Your thoughts might help me with my own decision.
- What do you think about borrowing money for consumption? Specifically, do you think it's appropriate to take out a loan for investment purposes?
I still feel uneasy about investing, so I haven't taken out a loan to invest. But I understand others who do, since it's high risk, high reward! What do you think about borrowing money for consumption?
 - (If they share the same view) You're also cautious about loans. I can relate to your thoughts. Taking out a loan for investment definitely requires a cautious approach, right?
 - (If they have a different view) I see! You're more positive about taking out a loan for investment. Hearing about your experience and perspective gives me a new viewpoint.
- Do you trust public pensions for retirement, or are you preparing for retirement in other ways?
I'm currently feeling uneasy about relying too much on public pensions, so I'm considering other options. How about you?
 - (If they share the same view) You also feel uneasy about public pensions. I'm in the same boat, so I'm looking into other options as well. It would be great to explore ways to prepare together.
 - (If they have a different view) I see! You have a positive view of public pensions. I'd love to hear what made you feel confident about them.
- In the current economic situation, do you think saving or investing is more important? I feel that saving is safe, but lately, I can't deny the importance of investing. What's your choice?
 - (If they share the same view) You agree with the safety of saving! But it seems you also recognize the importance of investing, just like I do. It seems we're facing the same dilemma. Let's try to find a good balance together.
 - (If they have a different view) I see! You place more weight on investing. I'm curious about your strategy. It's great to hear different perspectives.
- Do you think buying lottery tickets is a financially wise decision? I sometimes buy lottery tickets, but honestly, I don't have high expectations. How about you? And what's your reason for buying lottery tickets?
 - (If they share the same view) You think similarly about lottery tickets! You don't expect much, but it seems you enjoy the occasional thrill, just like I do.
 - (If they have a different view) I see! That's an interesting take on lottery tickets. Your view on the lottery is intriguing! It's great to hear diverse opinions.
- What do you think about purchasing insurance? Do you think insurance is really necessary, or do you see it as an unnecessary expense? I think health insurance is necessary, which is why I signed up for it, but sometimes the cost feels burdensome. That's why I check for cheaper insurance once a year!

- (If they think insurance is necessary) You also feel that health insurance is important! It's reassuring to know we think alike. Looking for more affordable insurance options is also important, I agree.
 - (If they think insurance is unnecessary) I see! You're right, sometimes insurance costs can feel wasteful.
- How do you feel about receiving financial support from family or friends? If someone asked you to lend them money, how would you respond?
I'm not very good at saying no. I haven't been asked for loans often, but it's not easy to turn people down. Unless it's someone really important, like close family or a few close friends, I'd try to say no. How about you?
 - (If they share the same view) You also find it hard to say no. It seems we're dealing with the same concern. It would be helpful to think together about how to handle these situations.
 - (If they have a different view) I see! You're more firm about financial support. Your approach seems like the right one, too!

[Emotion]

- With the increasing volatility in the financial markets, how do you feel and what do you think about your current financial situation? Lately, I've been feeling a bit anxious because of the market volatility.
 - (If they are confident) It's great that you're confident about your financial situation! I'd love to share some of that confidence.
 - (If they are not confident) I feel anxious too, so I completely understand. Let's work together to find ways to manage our finances more securely.
- Whenever the stock market crashes, I get a little shaken, especially when cryptocurrency values drop. How do you feel when you hear news about the stock market decline or a sharp drop in cryptocurrency? Do these changes affect your investment decisions?
 - (If they feel strong anxiety) You're feeling the same way as I am. It would be helpful for us to think together about how to handle these situations.
 - (If they are less affected) It seems you're handling it more calmly! I'm trying to maintain that kind of steadiness as well.
- How do you feel when you think about your or your family's financial future? What do you think is the reason for these feelings? I worry a lot about my family's financial future, so I've been saving and investing, but the anxiety never seems to go away.
 - (If they worry a lot) I see, I feel the same way quite often. It would be helpful to work together to find ways to reduce those worries.
 - (If they worry less) You don't seem to worry much about it. I envy that mindset! I'll try to think more like you do.
- Lately, inflation has made grocery shopping quite stressful for me. The rising cost of living has been weighing on my mind. How do you feel about the recent price increases and how have they impacted your daily life?
 - (If they feel burdened) I see. It looks like we're both feeling the same burden. Let's try to find ways to save, even a little bit, together.

- (If they don't feel burdened) It seems you don't feel that much pressure. I wish I could have that kind of ease as well!
- Sometimes after making a big purchase, I regret it. I often wonder, "Was this really okay to spend on?" How do you feel when making big spending decisions? How do those emotions influence your future choices?
 - (If they feel stressed and regretful often) You've had similar experiences as I have. How about we work together to improve our spending habits?
 - (If they don't feel much regret) You don't seem to regret your purchases much. I'll try to adopt that mindset too!
- Do you ever feel burdened or uncomfortable when discussing financial matters with friends or a partner? Or do you feel other emotions? Sometimes I find it a bit awkward to bring up money with friends or a partner. How do you feel?
 - (If they feel burdened) You feel the same kind of burden as I do. Let's think about how we can reduce this discomfort together.
 - (If they don't feel burdened) You don't seem to feel burdened by it at all. I'll try to get more comfortable talking about money as well.
- When I'm in a relationship, I sometimes find myself thinking about my partner's financial situation and how it might affect our relationship. How about you? How do you think your partner's financial situation has affected or might affect your emotions in a romantic relationship or marriage?
 - (If it has a big impact) You feel the same way as I do. Let's work together to build a healthy financial partnership.
 - (If it doesn't have a big impact) It seems you don't let financial matters affect your relationship much. I wish I could have that kind of ease!
- Sometimes I feel discouraged when I see economic inequality. It makes me wonder what I can do. How do you feel when you see economic inequality worsening? How do these feelings influence your life?
 - (If they feel discouraged or powerless) You feel the same way I do. Let's try to find ways to overcome these feelings together.
 - (If they don't feel discouraged) You manage to keep a positive outlook even in these situations. I'm trying to adopt a positive mindset like you!

3. Utility Theory

[Fact]

- What is your monthly income?
I'll provide you with an ideal ratio for savings, investments, living expenses, and emergency funds based on your monthly income.
 - So, your monthly income is xx KRW.
 - (If none) You currently don't have any income. In that case, we'll need a financial plan tailored to your current income structure.

- How much have you saved so far?
I'll find the appropriate financial management strategies based on the size of your assets.
 - You've saved a lot. Great! I'll recommend some strategies for growing these assets effectively.
 - (If none) I see. Got it.
- Do you have any additional sources of income? If so, how do you earn this extra income?
If you provide more details, I can suggest other areas you might be interested in exploring, along with tax-saving tips.
 - You're earning xx KRW per month from xx as additional income.
 - (If none) You don't have any additional income.
In that case, I'll share some of the common additional income sources people are choosing these days.
- How much student loan or other debt do you have left?
There are important guidelines depending on the type of loan.
If you let me know, I can provide tips on how to manage your loans and reduce interest payments.
 - You have a xx loan. Got it. I'll analyze the optimized repayment plans that experts recommend for managing this loan.
 - (If none) You don't have any loans. Got it.
- How much do you spend on housing or car expenses per month?
I'll suggest specific ways to manage your fixed expenses efficiently and reduce costs (e.g., saving on insurance or maintenance costs).
 - You spend xx KRW per month on housing/car maintenance. Got it.
Based on your housing type/car maintenance costs, I'll prepare tips and asset management advice from experts.
 - (If none) You don't have any housing/car maintenance expenses. Got it.
- How much do you spend on credit card payments each month?
I'll organize cost-saving tips based on your financial management pattern.
- So, which category do you spend the most on each month? For example, food, housing, or hobbies?
Based on your spending habits, I'll suggest specific ways to reduce expenses, along with efficient methods for managing your budget or dividing your accounts.
 - You spend the most on xx. Got it.
- What is the approximate asset size of your parents?
There are many inquiries about inheritance as well. I can provide advice on how to manage taxes and what to prepare in advance.
 - The asset size is around xx. I'll prepare advice and information based on that.
 - (If none or unknown) I see. Got it. If you need inheritance or tax advice in the future, feel free to reach out.

[Opinion]

- Do you think investing in stocks is risky? Are you currently investing in stocks, and if so, how do you think one should invest?

If you provide more details, I can suggest a stock portfolio that suits your investment style.

- (If they are investing in stocks) Oh, you're investing in stocks! That's great, you already have some experience. I'll create a tailored portfolio based on your investment style.
- (If they think investing in stocks is risky or are not investing) I see, you feel that stock investing is somewhat risky. In that case, let's work together to find a stable investment strategy that matches your risk tolerance.
- What are your thoughts on cryptocurrency? Do you think it's worth investing in? If you let me know how you feel about cryptocurrency, I can provide the best strategy that matches your risk profile.
 - (If they are positive about cryptocurrency) You're interested in cryptocurrency! Based on your interest, I'll help create a strategy that minimizes risk while aiming for potential returns.
 - (If they are skeptical about cryptocurrency) You're cautious about cryptocurrency. If you feel the risk is too high, I can suggest alternative investment strategies to balance it out.
- What do you think about borrowing for consumption? Specifically, do you think taking out a loan for investment purposes is appropriate? Your opinion will help me provide personalized advice on whether borrowing for investment is a suitable choice for you.
 - (If they are positive about borrowing for investment) You're considering borrowing for investment. In that case, let's explore ways to minimize interest while maximizing returns.
 - (If they are negative about borrowing for investment) You feel that borrowing for investment is a bit burdensome. In that case, I'll help you create a financial plan that won't push you beyond your comfort zone.
- Do you trust public pensions for retirement, or are you preparing for retirement in other ways? If you share your retirement plans with me, I can suggest an optimal strategy that combines public pensions with other investment methods.
 - (If they trust public pensions) You rely on public pensions. It might be a good idea to also consider other investment strategies to supplement your pension.
 - (If they are preparing in other ways) You're preparing for retirement using various methods. Let's combine these approaches to create the best retirement strategy for you.
- In the current economic situation, do you think saving or investing is more important? Let me know which you think is more important, and I'll recommend the best financial plan for the current economic climate.
 - (If they think saving is more important) You believe saving is more important. In that case, I'll help you create a financial plan that focuses on stable saving methods.

- (If they think investing is more important) You prioritize investing. I'll suggest an efficient investment strategy that aligns with your goals.
- Do you think buying lottery tickets is a financially wise choice? Why do you think so? If you share your thoughts on lottery purchases, I can take that into account when creating an overall financial plan that works for you.
 - (If they are positive about buying lottery tickets) You enjoy buying lottery tickets! While it's fun, long-term financial planning is also important, so let's create a strategy that aligns with your goals.
 - (If they are negative about buying lottery tickets) You're cautious about buying lottery tickets. In that case, I'll suggest more stable ways to grow your assets.
- What are your thoughts on purchasing insurance? Do you think insurance is really necessary, or do you view it as an unnecessary expense? If you share your thoughts on insurance, I can help you choose the right insurance products or give tips on reducing unnecessary costs.
 - (If they think insurance is necessary) You understand the importance of insurance. I'll recommend the best insurance products for your needs.
 - (If they think insurance is unnecessary) You see insurance as an unnecessary expense. In that case, let's work together to reduce any unnecessary insurance costs.
- How do you feel about receiving financial support from family or friends? If someone asked you to lend them money, how would you respond? If you share your thoughts on financial support, I can help you create a financial plan to consider in such situations.
 - (If they are positive about financial support) You believe financial support is important. I'll suggest a plan that helps you manage your finances securely, even in those situations.
 - (If they are negative about financial support) You take a cautious approach to financial support. Let's create a strategy for managing your finances independently.

[Emotion]

- With increasing volatility in the financial markets, how do you feel about your current financial situation? Based on your response, I'll provide tailored portfolio advice to help you cope with market fluctuations. Let's find strategies to keep your financial situation more stable.
 - (If they are confident) It's great that you're confident about your financial situation. I'll suggest ways to strengthen your portfolio, allowing you to maintain and enhance your financial stability.
 - (If they are not confident) You're feeling anxious about your financial situation. Don't worry, we'll work together to find strategies that help you manage your finances securely, even in the face of market volatility.
- How do you feel when you hear news about a stock market decline or a sharp drop in cryptocurrency values? Do these changes affect your investment decisions? I'll suggest long-term investment strategies that can give you

peace of mind, even during market downturns. Let's explore ways to reduce investment stress while pursuing stable returns.

- (If they feel strong anxiety) You seem to feel significant anxiety about market declines. I'll recommend long-term investment strategies that will help you feel secure, while also minimizing risk and pursuing stable returns.
 - (If they are not greatly affected) You don't seem to be too shaken by market fluctuations. I'll help you maintain this calm while developing more efficient investment strategies to achieve stable returns.
- When you think about your or your family's financial future, how do you feel? What do you think is the reason for these feelings? I'll provide customized saving and investment plans to help ease your worries and strengthen your financial stability. Let's work together to prepare for the future.
 - (If they worry a lot) You seem to have a lot of concerns about your financial future. I'll suggest a personalized plan to strengthen your financial stability and help reduce your worries, so you can look at the future more positively.
 - (If they worry a little) You don't seem to worry much about your financial future. I'll suggest tailored strategies to help you maintain this mindset while preparing for a more stable future.
- With recent inflation and rising costs, how do you feel about the increase in living expenses? How has this situation affected your daily life? I'll suggest financial strategies to help you manage your living expenses efficiently and cope with inflation. Let's explore ways to reduce costs while increasing financial stability.
 - (If they feel burdened) You're feeling burdened by the increase in living expenses. I'll suggest financial strategies to help you manage your living expenses efficiently and cope with inflation.
 - (If they don't feel burdened) It's good to hear that you don't feel burdened by the increase in living expenses. Still, let's discuss additional ways to save and prepare for inflation.
- When making big spending decisions, how do you feel? How do those emotions affect your choices afterward? I'll provide budgeting tips that match your spending patterns and suggest ways to reduce unnecessary expenses. Let's work together to find ways to reduce stress and gain financial flexibility.
 - (If they feel frequent stress and regret) You often feel stressed or regretful about your spending decisions. I'll offer personalized budgeting tips and cost-saving strategies to help reduce these feelings and gain financial freedom.
 - (If they don't feel much stress) You don't feel much stress or regret about your spending decisions. Even so, let's explore ways to manage your spending more efficiently.
- Do you ever feel burdened or uncomfortable when discussing financial matters with friends or a partner? Or do you feel other emotions? I'll analyze tips from others on building healthy financial communication and share them with you. Let's find ways to strengthen relationships while achieving financial goals together.

- (If they feel burdened) You feel burdened or uncomfortable discussing financial matters. I'll suggest ways to reduce these feelings and build healthy financial communication.
 - (If they don't feel burdened) It's great that you don't feel burdened discussing financial matters. I'll provide tips to help you maintain these strong relationships while achieving your financial goals.
- How do you think your partner's financial situation has affected or might affect your emotions in a romantic relationship or marriage? I'll share expert advice on how to discuss and resolve financial issues with your partner, helping you build a healthy financial partnership and prepare for a stable future together.
 - (If their partner's financial situation has a big impact) Your partner's financial situation has had a significant impact on your emotions. I'll suggest ways to foster open communication and build a healthy financial partnership with expert advice.
 - (If their partner's financial situation has little impact) It's great that your partner's financial situation hasn't had a big impact on you. Let's still explore financial strategies to help you prepare for a stable future together.
- How do you feel when you see economic inequality worsening? How do these feelings influence your life? I'll provide practical advice and strategies to help you overcome these feelings and achieve your financial goals.
 - (If they feel discouraged or powerless) It's unfortunate that you feel discouraged by economic inequality. Let's work together to find practical strategies to help you overcome these feelings and achieve your financial goals.
 - (If they don't feel discouraged) It's great that you don't feel discouraged by economic inequality. Using your positive energy, I'll suggest strategies to help you achieve your goals even more effectively.

4. Questionnaire

privacy concern

- How concerned are you about providing personal information to this chatbot?
Not concerned at all (1) – Very concerned(7)

Disclosure Comfort

- How comfortable did you feel about disclosing personal information to this chatbot?
Not comfortable at all (1) – Completely comfortable(7)

Intimacy

- How friendly did the interaction with this chatbot feel to you?
Not feel friendly (1) – Felt friendly(7)

Usefulness

- How useful did you find this chatbot?

Not feel useful (1) – Felt useful (7)

Willingness to Share

- I am (not) willing to disclose my personal information to this chatbot.

Not at all (1) – A lot(7)