

We created two separate environments, production and testing,

Production:

https://is883-group-project-g5.streamlit.app/

https://github.com/rjcontrerasr/IS883-Group-Project-G5/blob/main/streamlit\_app.py

Testing

https://is833-fin-prueba3-g5.streamlit.app/

https://github.com/rjcontrerasr/is833-fin-prueba3-g5/blob/main/requirements.txt

Execution Testing

Initial greeting and information gathering

Stored Product: Vehicle loan or lease

Stored Subproduct: Loan

Subproduct Identification Source: LLM

Stored Issue: Struggling to pay your loan

Issue Identification Source: LLM

Financial Support Chatbot

[https://raw.githubusercontent.com/JeanJMH/Financial\\_Classification/main/Classification\\_data.csv](https://raw.githubusercontent.com/JeanJMH/Financial_Classification/main/Classification_data.csv)

	Product	Sub-product	Issue
11	Credit card	General-purpose credit card	Problem with a purchase
12	Checking or savings account	Checking account	Closing an account
13	Debt collection	Medical debt	Attempts to collect debt
14	Credit card	General-purpose credit card	Problem with a purchase
15	Student loan	Federal student loan service	Dealing with your lender
16	Student loan	Federal student loan service	Struggling to repay your loan
17	Credit reporting or other personal consumer reports	Credit reporting	Unable to get your credit report
18	Credit card	General-purpose credit card	Other features, terms, or policies
19	Credit card	Store credit card	Fees or interest
20	Money transfer, virtual currency, or money service	International money transfer	Money was not available
21	Debt collection	I do not know	False statements or representations

hi

Hello! How can I assist you today? Please describe your issue, and I'll do my best to help you.

im rick

How can I help?

Share

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Manage

## Testing memory of the chatbot

The screenshot shows a web browser window with the address bar displaying "is833-fin-prueba3-g5.streamlit.app". The chatbot interface has a sidebar on the left with the following text:

- Stored Product: Vehicle loan or lease
- Stored Subproduct: Loan
- Subproduct Identification Source: LLM
- Stored Issue: Struggling to pay your loan
- Issue Identification Source: LLM

The chat history shows the following messages:

- User: hi
- Bot: Hello! How can I assist you today? Please describe your issue, and I'll do my best to help you.
- User: im rick
- Bot: Hi Rick! It's nice to meet you. Please let me know what issue you're experiencing, and I'll be happy to assist you.
- User: I have an issue
- Bot: I'm here to help, Rick. Could you please describe your issue in more detail?
- User: "I am filing a complaint regarding my vehicle purchase from Wheels of Chicago, which has led to serious financial harm due to predatory lending and deceptive contract practices. I, XXXX XXXX, purchased a XXXX XXXX from Wheels of Chicago on XX/XX/XXXXXX/XX/XXXX at an inflated price of over (16000.00), nearly three times the cars market value. The financing terms mean I will end up paying over (30000.00) until XXXX, far beyond what I believe is fair. While the signing process of contracts was being conducted, the employee wouldnt let me read every document that was being signed in order to inform me of what was being agreed upon and forced me to sign everything without the knowledge of each disclosure. Below are some issues I have faced since the purchase. Key issues include : 1. Excessive Interest Rate : The high-interest loan terms make repayment difficult, which seems to be a predatory lending practice. 2. Lack of Disclosure : The dealership did not fully disclose the actual cost or high interest associated with the loan, which may violate TILA. 3. Vehicle Quality : The car has needed repairs since the first day, indicating potential misrepresentation of its condition."
- User: How can I help?

At the bottom right, there is a "Manage app" button.

Entering the complaint and having a formal message acknowledging the customer of the message created.

This screenshot shows the same chatbot interface as the previous one, but with a more detailed response from the bot. The chat history now includes:

- User: "I am filing a complaint regarding my vehicle purchase from Wheels of Chicago, which has led to serious financial harm due to predatory lending and deceptive contract practices. I, XXXX XXXX, purchased a XXXX XXXX from Wheels of Chicago on XX/XX/XXXXXX/XX/XXXX at an inflated price of over (16000.00), nearly three times the cars market value. The financing terms mean I will end up paying over (30000.00) until XXXX, far beyond what I believe is fair. While the signing process of contracts was being conducted, the employee wouldnt let me read every document that was being signed in order to inform me of what was being agreed upon and forced me to sign everything without the knowledge of each disclosure. Below are some issues I have faced since the purchase. Key issues include : 1. Excessive Interest Rate : The high-interest loan terms make repayment difficult, which seems to be a predatory lending practice. 2. Lack of Disclosure : The dealership did not fully disclose the actual cost or high interest associated with the loan, which may violate TILA. 3. Vehicle Quality : The car has needed repairs since the first day, indicating potential misrepresentation of its condition."
- Bot: Thank you for providing the details of your issue. Based on your description, your complaint has been categorized under: **Vehicle loan or lease**, specifically the subcategory: **Loan**, with the issue categorized as: **Struggling to pay your loan**. A ticket has been created for your issue, and it will be forwarded to the appropriate support team. They will reach out to you shortly to assist you further. If you have any more questions or need additional assistance, please let me know!
- User: The issue was directly identified by the model.

Below the user's message, there is a small text line: "Technician identified Product, Subproduct, and Issue." followed by a "How can I help?" input field with a right arrow button.

At the bottom right, there is a "Manage app" button.

## Debugging

Created temporary variables on the left side panel and after the confirmation to the customer to confirm the model was properly following the instructions given.

The screenshot shows a web browser window with the URL `is833-fin-prueba3-g5.streamlit.app`. The interface is divided into two main sections. On the left, a sidebar contains several text labels: "Stored Product: Vehicle loan or lease", "Stored Subproduct: Loan", "Subproduct Identification Source: LLM", "Stored Issue: Struggling to pay your loan", and "Issue Identification Source: LLM". The main content area on the right displays a series of messages from a Jira task creation process. It starts with "Starting Jira task creation process...", followed by a user description extracted from a complaint. Then, it states "Assigned issue: Issue with Vehicle loan or lease - Loan: Struggling to pay your loan". Below this, it shows "Prepared Jira task details:" and an "Agent execution result:" which includes a JSON-like structure for creating a task. A green box highlights the message: "Jira task created successfully for the issue: Issue with Vehicle loan or lease - Loan: Struggling to pay your loan". The process concludes with "Task creation process completed successfully." and a "How can I help?" prompt.

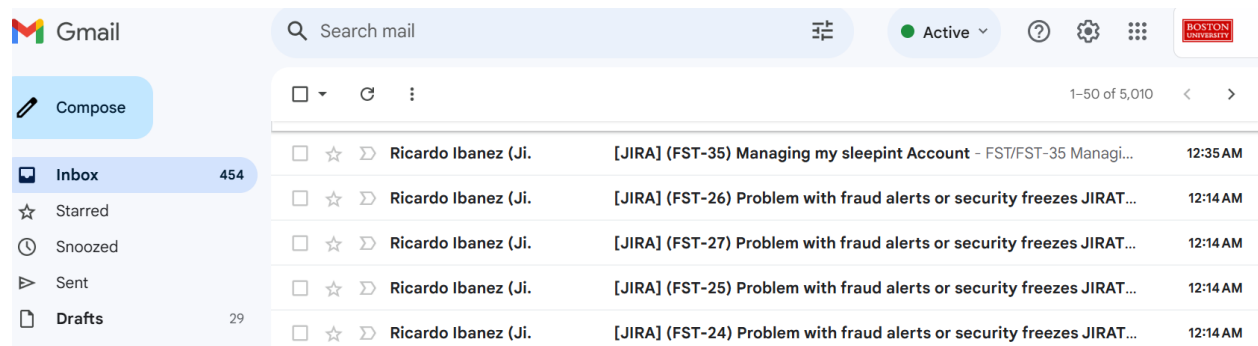
## Confirmed the creation of the tasks using the JIRA agent.

The screenshot shows the Jira web interface in the "List" view for the "FST" project. The URL is `is883-genai-r.atlassian.net/jira/core/projects/FST/list?sortBy=key&direction=DESC`. The interface includes a top navigation bar with "Jira", "Your work", "Projects", "Filters", "Dashboards", "Teams", "Plans", "Assets", and "Apps". A search bar is on the right. The left sidebar shows the "Projects" section with "FST" selected. The main content area displays a table of tasks. The table has columns for checkboxes, Type, Key, Summary, Status, Category, Assignee, and Due date. The tasks listed are:

	Type	Key	Summary	Status	Category	Assignee	Due date
<input type="checkbox"/>	Task	FST-144	Issue with Vehicle loan or lease - Loan: Struggling to pay you...	DONE			
<input type="checkbox"/>	Task	FST-143	Issue with Checking or savings account - Savings account: Pr...	DONE			
<input type="checkbox"/>	Task	FST-142	Issue with Mortgage - Conventional home mortgage: Troubl...	DONE			
<input type="checkbox"/>	Task	FST-141	Issue with Checking or savings account - Checking account: ...	DONE			
<input type="checkbox"/>	Task	FST-140	Issue with Credit reporting or other personal consumer repor...	DONE			
<input type="checkbox"/>	Task	FST-139	Issue with Mortgage - Other type of mortgage: Trouble durin...	DONE			
<input type="checkbox"/>	Task	FST-138	Managing my Mortgage Account	DONE			
<input type="checkbox"/>	Task	FST-137	Managing my Mortgage Account	DONE			
<input type="checkbox"/>	Task	FST-1	Pruebita	DONE			

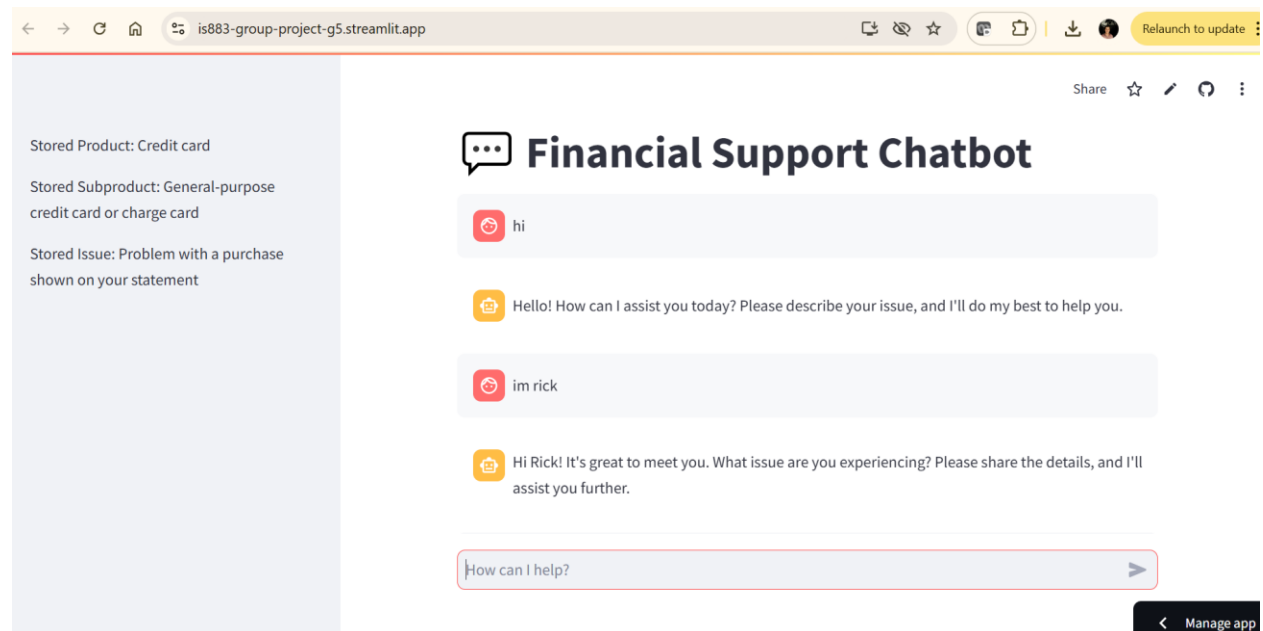
On the right side of the interface, there is a "Quickstart" panel with a "Project created" notification and a "Get started with list" section. The "List" view is highlighted, showing a preview of the task list and a "Guide me" button.

## Email notification test



## Production model

### Testing conversation of the LLM



## Requesting more details from the user to create ticket

is883-group-project-g5.streamlit.app

Relaunch to update

Share ☆ ↻ ⋮

Stored Product: Credit card

Stored Subproduct: General-purpose credit card or charge card

Stored Issue: Problem with a purchase shown on your statement

i have an issue

I'm here to help, Rick. Could you please describe the issue you're facing?

an issue with my bank

Thank you for sharing that, Rick. Could you provide a bit more detail about the specific issue you're experiencing with your bank? This will help me assist you better.

my credit card was stolen and a purchase of 10k was completed

How can I help?

Manage app

## Answer to customer

is883-group-project-g5.streamlit.app

Relaunch to update

Share ☆ ↻ ⋮

Stored Product: Credit card

Stored Subproduct: General-purpose credit card or charge card

Stored Issue: Problem with a purchase shown on your statement

Thank you for sharing that, Rick. Could you provide a bit more detail about the specific issue you're experiencing with your bank? This will help me assist you better.

my credit card was stolen and a purchase of 10k was completed

Thank you for providing the details of your issue. Based on your description, your complaint has been categorized under: **Credit card**, specifically the subcategory: **General-purpose credit card or charge card**, with the issue categorized as: **Problem with a purchase shown on your statement**. A ticket has been created for your issue, and it will be forwarded to the appropriate support team. They will reach out to you shortly to assist you further. If you have any more questions or need additional assistance, please let me know!

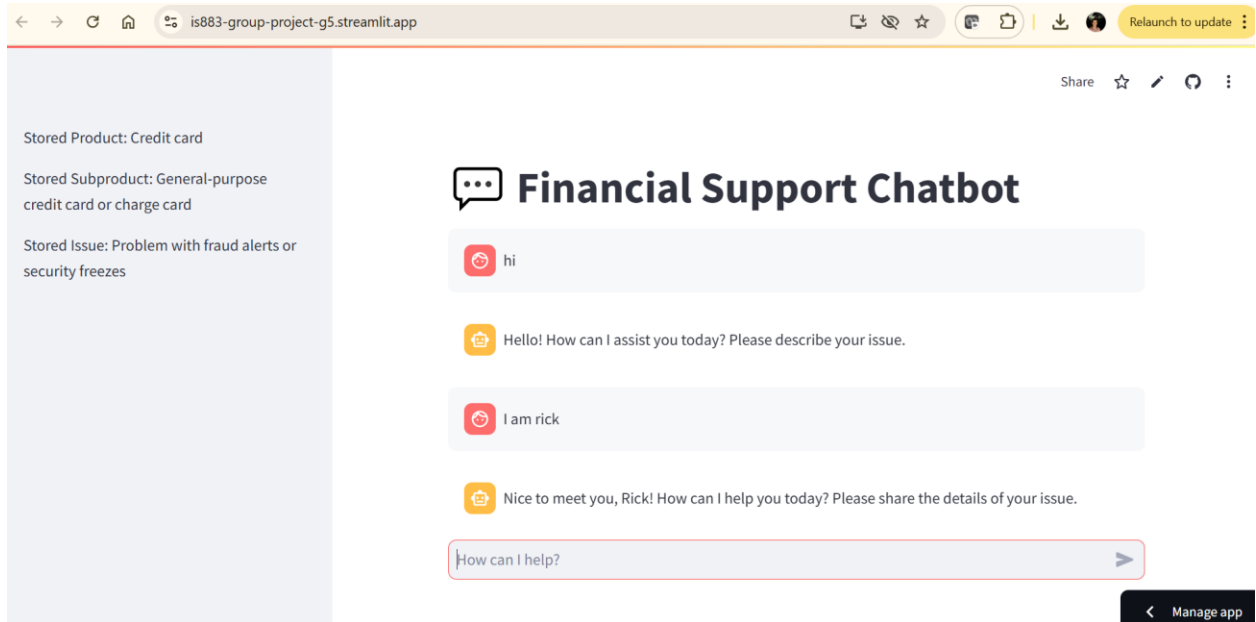
The issue was directly identified by the model.

How can I help?

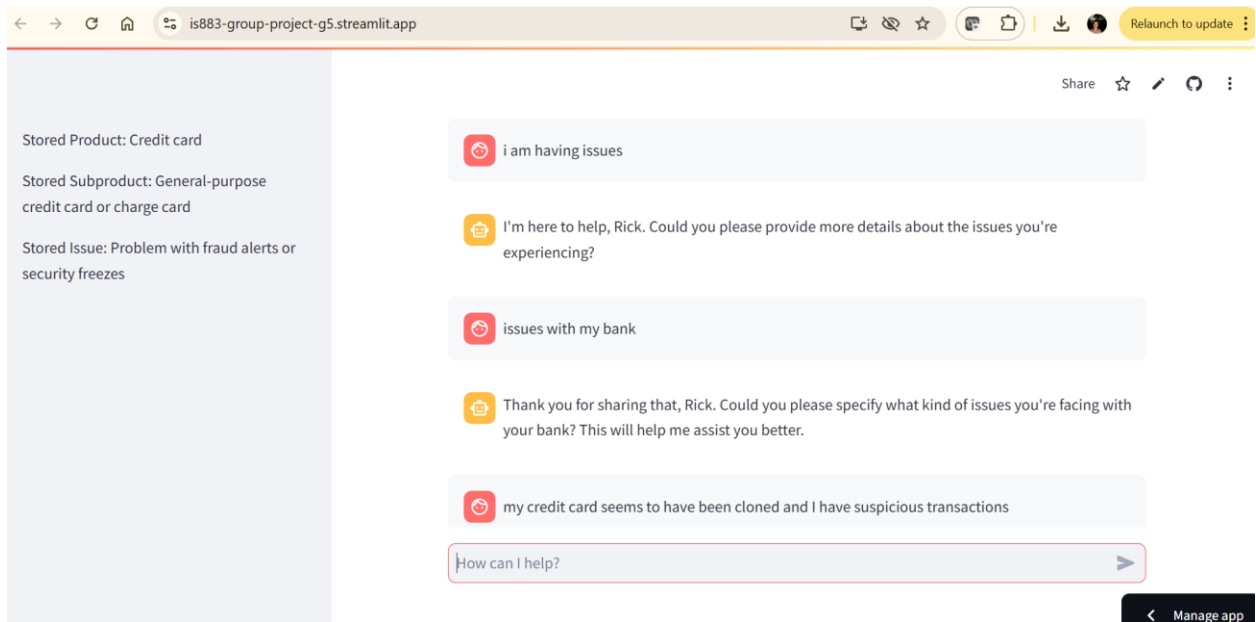
Manage app

## Production testing 2

## Greetings and gathering information



### Conversation continues and issue reporting



## Response to user and jira confirmation

Stored Product: Credit card

Stored Subproduct: General-purpose credit card or charge card

Stored Issue: Problem with fraud alerts or security freezes

Thank you for providing the details of your issue. Based on your description, your complaint has been categorized under: **Credit card**, specifically the subcategory: **General-purpose credit card or charge card**, with the issue categorized as: **Problem with fraud alerts or security freezes**. A ticket has been created for your issue, and it will be forwarded to the appropriate support team. They will reach out to you shortly to assist you further. If you have any more questions or need additional assistance, please let me know!

The issue was directly identified by the model.

Starting Jira task creation process...

Prepared Jira task details.

Jira task created successfully for the issue: Issue with Credit card - General-purpose credit card or charge card: Problem with fraud alerts or security freezes

How can I help?

Manage app

## Evidence From JIRA of the new task

is883-genai-r.atlassian.net/jira/core/projects/FST/list?sortBy=key&direction=DESC

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Q Search

Project settings

Summary Board List Calendar Timeline Approvals Forms Pages Attachments Issues Reports Archived Issues Shortcuts

Search list

	Type	Key	Summary	Status	Category	Assignee	Due date
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-148	Issue with Credit card - General-purpose credit card or charge...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-147	Issue with Checking or savings account - Savings account: Pr...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-146	Issue with Credit card - General-purpose credit card or charg...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-145	Issue with Credit card - General-purpose credit card or charg...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-144	Issue with Vehicle loan or lease - Loan: Struggling to pay you...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-143	Issue with Checking or savings account - Savings account: Pr...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-142	Issue with Mortgage - Conventional home mortgage: Troubl...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-141	Issue with Checking or savings account - Checking account: ...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-140	Issue with Credit reporting or other personal consumer repor...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-139	Issue with Mortgage - Other type of mortgage: Trouble durin...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-138	Managing my Mortgage Account	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-137	Managing my Mortgage Account	DONE			

Project created

Congratulations! A project has been created for your team to collaborate in.

View all projects

Get started with list

View dates on calendar

Plan ahead with timeline

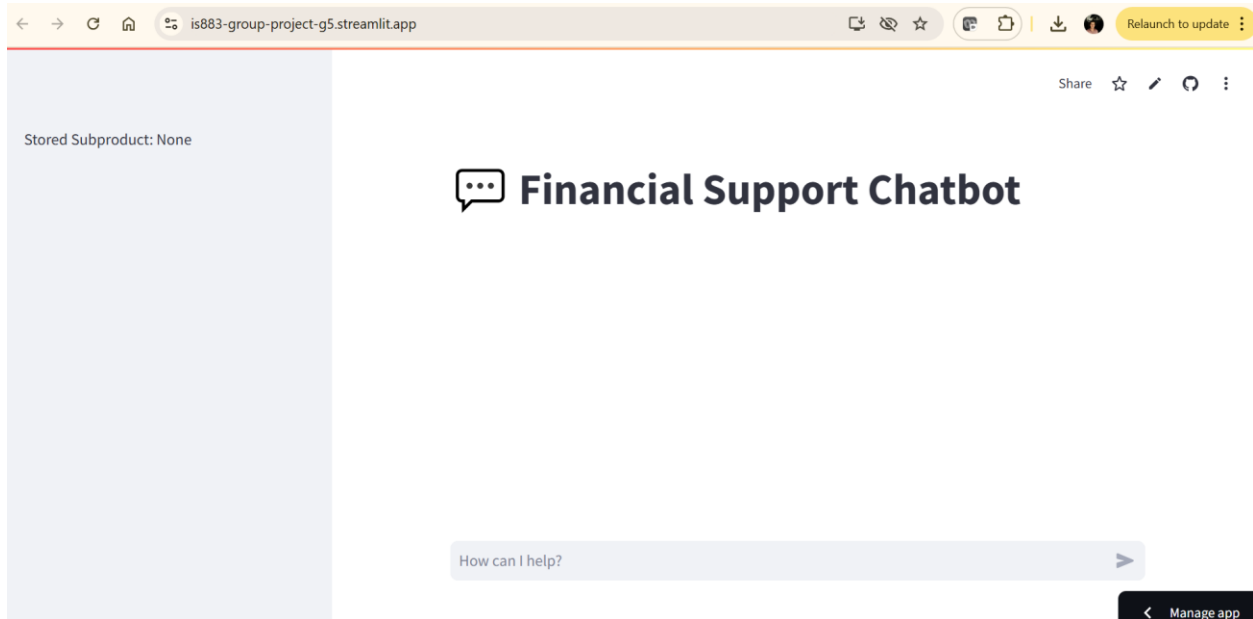
Collect information for your team with forms

Personalize your project

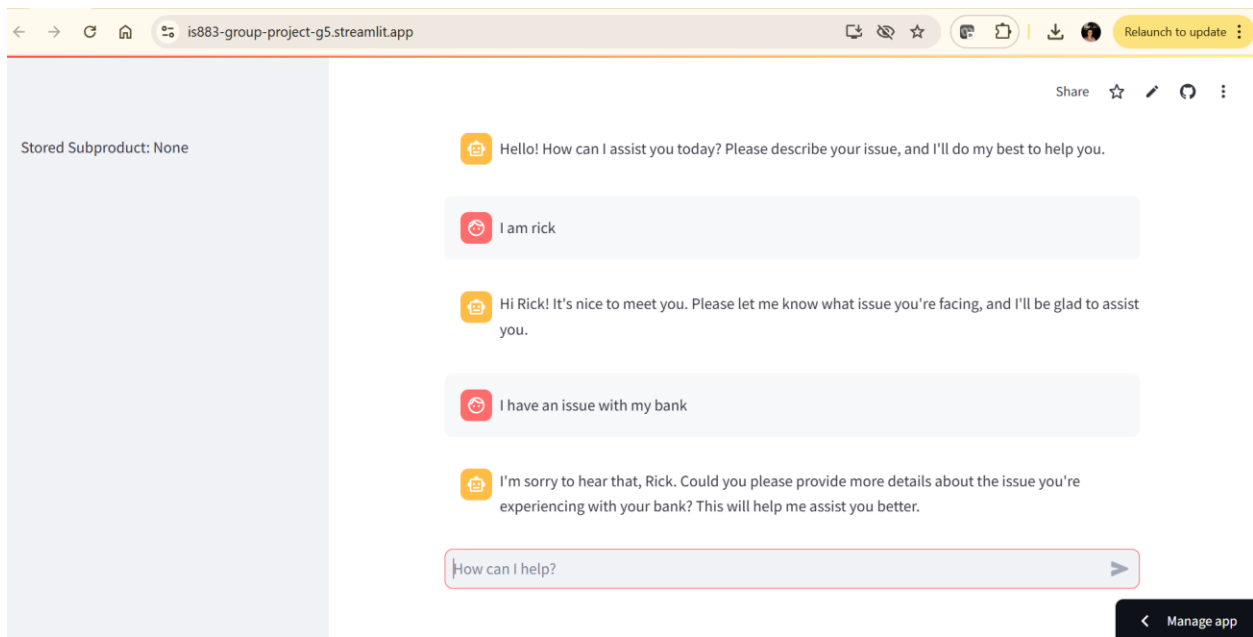
Find help and give feedback

Dismiss Quickstart

## Clean test in production environment



## Greeting and validating issue details





## Issue description and classification

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is883-group-project-g5.streamlit.app

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👤 Relaunch to update ⋮

Share ☆ ✎ 🔄 ⋮

🏠 I'm sorry to hear that, Rick. Could you please provide more details about the issue you're experiencing with your bank? This will help me assist you better.

🔴 i have a home loan and last time i was being charged three times what I have to pay and I have made all my payments on time!

🏠 Thank you for providing the details of your issue. Based on your description, your complaint has been categorized under: **Mortgage**, specifically the subcategory: **Other type of mortgage**, with the issue categorized as: **Trouble during payment process**. A ticket has been created for your issue, and it will be forwarded to the appropriate support team. They will reach out to you shortly to assist you further. If you have any more questions or need additional assistance, please let me know!

Starting Jira task creation process...

How can I help?

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< Manage app

## Confirmation of Jira ticket created

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is883-group-project-g5.streamlit.app

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👤 Relaunch to update ⋮

Share ☆ ✎ 🔄 ⋮

🏠 Thank you for providing the details of your issue. Based on your description, your complaint has been categorized under: **Mortgage**, specifically the subcategory: **Other type of mortgage**, with the issue categorized as: **Trouble during payment process**. A ticket has been created for your issue, and it will be forwarded to the appropriate support team. They will reach out to you shortly to assist you further. If you have any more questions or need additional assistance, please let me know!

Starting Jira task creation process...

Prepared Jira task details.

Jira task created successfully for the issue: Issue with Mortgage - Other type of mortgage: Trouble during payment process

Task creation process completed successfully.

How can I help?

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< Manage app

## Evidence of the task created in Jira

is883-genai-r.atlassian.net/jira/core/projects/FST/list?sortBy=key&direction=DESC

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Search

Projects

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FST

View all projects

FST

Summary Board List Calendar Timeline Approvals Forms Pages Attachments Issues Reports Archived Issues Shortcuts

Search list

Share Filter Group Format Chart More

<input type="checkbox"/>	Type	Key	Summary	Status	Category	Assignee	Due date
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-149	Issue with Mortgage - Other type of mortgage: Trouble durin...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-148	Issue with Credit card - General-purpose credit card or charg...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-147	Issue with Checking or savings account - Savings account: Pr...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-146	Issue with Credit card - General-purpose credit card or charg...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-145	Issue with Credit card - General-purpose credit card or charg...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-144	Issue with Vehicle loan or lease - Loan: Struggling to pay you...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-143	Issue with Checking or savings account - Savings account: Pr...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-142	Issue with Mortgage - Conventional home mortgage: Troubl...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-141	Issue with Checking or savings account - Checking account: ...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-140	Issue with Credit reporting or other personal consumer repor...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-139	Issue with Mortgage - Other type of mortgage: Trouble durin...	DONE			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FST-138	Manavino mv Mortgage Account	DONE			

+ Create

You're in a team-managed project [Give feedback](#)

Project settings

Quickstart

Project created

Get started with list

List

The list view helps you manage and update your work items quickly and easily, just like the spreadsheets you're familiar with.

Guide me

View dates on calendar

Plan ahead with timeline

Collect information for your team with forms

Dismiss Quickstart