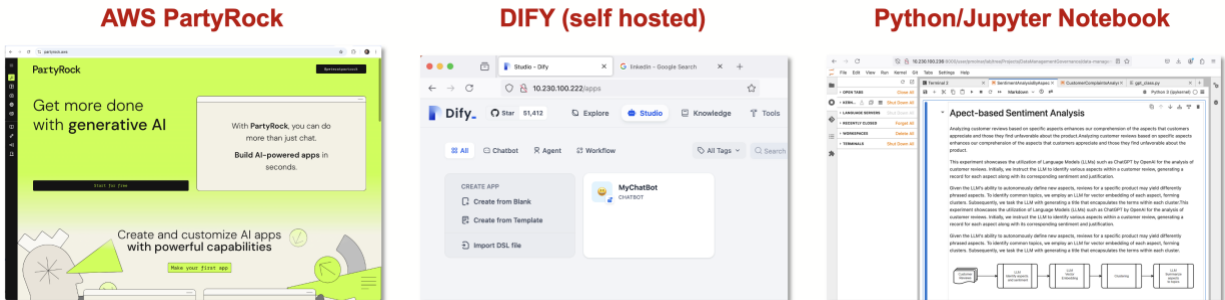


Activities

Documents and example code at <https://github.com/molnarai/genai-exercises/>



AWS Party Rock

1. Visit <https://partyrock.aws>
2. Select "Get started for free."
3. Sign in with your personal Google, Apple or Amazon account.
4. Setup your username

The system does NOT REQUIRE a credit card. No charges, Just a usage limit.

Clear your browser cache and data after this session!

Dify (on-premises)

1. Visit <http://10.230.100.222/>
2. Sign in with one of the guest accounts (use the guest email)

Python/Jupyter Notebook

1. Visit <http://10.230.100.236:8000/>
2. Log in with one of the guest accounts
3. Clone GIT repository: <https://github.com/molnarai/genai-exercises.git>
4. Choose "Conda Python 3.12" kernel

Build a Personalized Financial Insights Generator (PartyRock)

Description:

Participants will create an AI-powered app that generates personalized financial insights for users based on their transaction data. The app will help users understand their spending patterns and offer actionable recommendations for financial improvement.

Instructions:

1. **Sign in to PartyRock.**
2. **App Setup:**
 - Describe the app as: *“This app provides personalized financial insights based on user transaction data.”*
 - Use the **User Input Widget** to collect inputs such as monthly income, expenses (e.g., rent, groceries), and savings goals.
3. **Configure Text Generation:**
 - Add a text generation widget with a prompt like: *“Based on an income of \${{income}} and monthly expenses of \${{expenses}}, provide three personalized tips to improve savings and manage finances better.”*
4. **Test & Refine:**
 - Test the app by inputting different financial scenarios.
 - Adjust the prompt to provide more specific or actionable insights (e.g., suggesting investment options or budget adjustments).
5. **Share the App:** Share the app link with other groups for feedback.

Create a Loan Affordability Calculator (PartyRock)

Description:

Participants will design an app that helps users determine their loan affordability based on their income, expenses, and credit score. This activity emphasizes creating a useful tool for loan officers or customers looking for quick loan assessments.

Instructions:

1. **Sign in to PartyRock.**
2. **App Setup:**
 - Describe the app as: *“This app calculates loan affordability based on user inputs like income, expenses, and credit score.”*
 - Use the **User Input Widget** to collect information such as monthly income, total expenses, and credit score.
3. **Dynamic Variables Chain:**
 - Add a text generation widget that uses dynamic variables from user inputs.
 - Example prompt: *“Given an income of \${{income}}, expenses of \${{expenses}}, and a credit score of {{credit_score}}, calculate the maximum loan amount this person can afford.”*
4. **Test & Refine:**
 - Test with different inputs and adjust the prompt to ensure accurate loan calculations.
5. **Share & Discuss Results.**

Build a Customer Support Chatbot for Financial Queries (Dify)

Description:

Participants will use Dify's platform to create a customer support chatbot that answers common financial service-related queries, such as account balances, loan applications, or transaction history.

Instructions:

1. **Log into Dify.**
2. **Design the Chatbot Workflow:**
 - Use Dify's visual workflow editor to create a chatbot that handles common queries like *"What is my account balance?"* or *"How do I apply for a loan?"*.
 - Define prompts such as: *"Answer this question based on the user's query: {{user_question}}."*
3. **Knowledge Base Integration:**
 - Upload relevant documents (e.g., FAQ documents or policy guides) into Dify's knowledge base.
 - Ensure the chatbot retrieves accurate information from these documents when responding to user queries.
4. **Test & Iterate:**
 - Test by asking various financial questions related to account management or loans.
 - Refine prompts based on chatbot performance.
5. **Deploy & Share.**

Create a Financial Report Generator (PartyRock)

Description:

Participants will build an AI-powered tool that generates monthly or quarterly financial reports based on user-provided data such as revenue, expenses, and profit margins.

Instructions:

1. **Sign into PartyRock.**
2. **App Setup:**
 - Describe your app as: *“This app generates automated financial reports based on user-provided data.”*
3. **Input Widgets Setup:**
 - Use multiple input widgets for users to enter revenue, expenses, profit margins, etc.
4. **Text Generation Widget:**
 - Create a prompt like: *“Generate a financial report summarizing revenue of \${{revenue}}, expenses of \${{expenses}}, and profit margin of {{profit_margin}} for Q{{quarter}}.”*
5. **Test & Adjust:**
 - Test various report scenarios and refine suggestions by adjusting prompt parameters such as model temperature or top-p values.
6. **Share & Discuss Results with Other Groups.**

Build a Personalized Banking Experience Chatbot (Dify)

Description:

Participants will use Dify to build a chatbot that provides personalized banking experiences by recommending products like savings accounts or investment plans based on user profiles.

Instructions:

1. **Log into Dify.**
2. **Design Chatbot Workflow:**
 - Create a chatbot that asks users about their financial goals (e.g., saving for retirement, buying a house) and recommends appropriate banking products.
3. **Prompt Refinement with Function Calls:**
 - Define prompts like: *“Based on your goal of {{goal}}, we recommend the following product(s): {{product_recommendation}}.”*
4. **Integration with Financial Data APIs:**
 - Optionally integrate with external APIs to pull real-time product data or interest rates for more accurate recommendations.
5. **Test & Refine Workflow:**
 - Test by simulating different user profiles and refine responses accordingly.
6. **Deploy & Collaborate with Other Groups for Feedback.**

Sources

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