import streamlit as st

import pandas as pd

import matplotlib.pyplot as plt

# Title and description

st.title("Enhanced BRRR Underwriter")

st.write("Analyze your BRRR (Buy, Rehab, Rent, Refinance) project with detailed inputs, outputs, and visuals.")

# Input fields

st.header("Input Your Project Details")

purchase\_price = st.number\_input("Purchase Price ($)", min\_value=0, value=250000, step=1000)

rehab\_cost = st.number\_input("Rehab Cost ($)", min\_value=0, value=93500, step=1000)

arv = st.number\_input("Estimated After Repair Value (ARV) ($)", min\_value=0, value=500000, step=1000)

ltc\_percentage = st.slider("Approved Loan-to-Cost (%)", min\_value=0, max\_value=100, value=70)

monthly\_rent = st.number\_input("Estimated Monthly Rent ($)", min\_value=0, value=3000, step=100)

# Dropdown for financing options

financing\_option = st.selectbox("Select Financing Option", ["Conventional Loan", "Hard Money Loan", "Private Lender"])

# Calculations

total\_cost = purchase\_price + rehab\_cost

ltc\_amount = (ltc\_percentage / 100) \* total\_cost

equity = arv - total\_cost

cash\_required = total\_cost - ltc\_amount

gross\_rent = monthly\_rent \* 12

roi = (gross\_rent / total\_cost) \* 100 if total\_cost > 0 else 0

# Outputs

st.header("Analysis Results")

st.write(f"\*\*Total Cost:\*\* ${total\_cost:,.2f}")

st.write(f"\*\*Loan-to-Cost Amount (LTC):\*\* ${ltc\_amount:,.2f}")

st.write(f"\*\*Equity After Repairs:\*\* ${equity:,.2f}")

st.write(f"\*\*Cash Required:\*\* ${cash\_required:,.2f}")

st.write(f"\*\*Gross Annual Rent:\*\* ${gross\_rent:,.2f}")

st.write(f"\*\*ROI (Return on Investment):\*\* {roi:.2f}%")

# Graphs

st.header("Visualizations")

fig, ax = plt.subplots()

labels = ['Purchase Price', 'Rehab Cost', 'Equity']

values = [purchase\_price, rehab\_cost, equity]

ax.pie(values, labels=labels, autopct='%1.1f%%', startangle=90)

ax.axis('equal') # Equal aspect ratio ensures the pie chart is circular.

st.pyplot(fig)

# Exporting results

st.header("Export Results")

export\_data = {

"Metric": ["Purchase Price", "Rehab Cost", "Total Cost", "LTC Amount", "Equity", "Cash Required", "Gross Annual Rent", "ROI"],

"Value": [purchase\_price, rehab\_cost, total\_cost, ltc\_amount, equity, cash\_required, gross\_rent, roi]

}

df\_export = pd.DataFrame(export\_data)

if st.button("Download Results as CSV"):

df\_export.to\_csv("BRRR\_Analysis\_Results.csv", index=False)

st.success("Results exported successfully! Check your file directory.")

# Additional tips

st.header("Pro Tips")

st.write("Ensure your rehab budget includes contingencies. Consider your financing option's interest rates and terms.")