Week2 HomeWork: Use Google colab for this homework – preferred. (VScode is also fine)

**Problem 1:**

Using a Groq API Key, write a code to get the following questions answered. Use any LLM that Groq provides from [Playground - GroqCloud](https://console.groq.com/playground)

1. How is Machine learning different from GenAI ? The answers must be consistent between runs and maxim output should be less than 200 tokens.

2. Generate a python code on how to calculate the square root of three numbers and test with few examples. This has to be done within the notebook itself. you can’t run generated outside current notebook.

Also write the input and its answers to JSON file for the following format or CSV format.

{

“Question1”: “Answer 1 ……………..”

“Question2”: “Answer 2 ……………..”

}

**Problem 2:**

Using a Groq API Key and one of the LLM that Groq supports, write a code how to predict home price prediction using LLM. (Hint: use prompts and LLM to solve this. Not worry out accuracy prediction of home prices itself)

You can compare the prediction that LLM does vs Traditional model prediction. And see the differences

Use sample data set in the share point : [california\_housing\_train.csv (sharepoint.com)](https://netorgft1612603-my.sharepoint.com/:x:/r/personal/chandra_pillutla_zionclouds_com/_layouts/15/Doc.aspx?sourcedoc=%7B3EA5323E-AA6B-4C15-B93F-984D30C2BFBA%7D&file=california_housing_train.csv&action=default&mobileredirect=true)

Use random 50 to 80 rows from train.csv (see above)

Use the notebook code from week1 folder called: “**traditinal\_ai\_model\_development.ipynb**” for your reference.