☐ 1. Sentiment Analysis of Product Reviews

Goal: Predict if a review is *positive* or *negative*.

What you'll do:

- In SageMaker Studio, open the "JumpStart" tab.
- Choose the **"Text Classification (Sentiment Analysis)"** model (pre-built by AWS).
- Use a small sample CSV file (e.g. 10–20 Amazon review lines).
- Click **"Deploy"** — SageMaker automatically sets up the model endpoint.
- Type a few example sentences and see if the model predicts *positive* or *negative*.

Concept learned: Natural Language Processing (NLP) and real-time inference.

☐ 2. Image Classification — Identify Cats vs. Dogs

Goal: Use a pretrained image model to classify images.

Steps:

- Go to **SageMaker JumpStart → Image Classification**.
- Select a pre-trained model (e.g. ResNet-50).
- Upload 5–10 images of cats and dogs.
- Deploy the model — SageMaker handles the rest.
- Test each image and see which label it predicts.

Concept learned: Computer Vision and image inference.

☐ 3. Predict House Prices (Simple Regression)

Goal: Estimate house prices based on a few features like size, bedrooms, location.

Steps:

- Download a small dataset (e.g. from Kaggle or a CSV of 20 rows).
- Open SageMaker Studio → **AutoML (Autopilot)**.

- Upload your CSV and select **"Predict price"** as target.
- SageMaker automatically builds, trains, and evaluates a model.
- View the model report and make a few test predictions.

Concept learned: AutoML and supervised regression.

☐ 4. **Sales Forecasting**

Goal: Predict next week's sales from past sales data.

Steps:

- Prepare a 2-column CSV: `date, sales.`
- Use **JumpStart → Time Series Forecasting**.
- Upload the CSV, deploy the pretrained model.
- Check the predicted sales values and trend chart.

Concept learned: Forecasting and time series prediction.

☐ 5. **Detect Fake News Headlines**

Goal: Classify whether a headline is "Real" or "Fake".

Steps:

- Use **JumpStart → Text Classification (Binary)**.
- Upload a small dataset with two columns: `headline, label` ("real"/"fake").
- Deploy the pre-trained model.
- Type a few headlines manually to test.

Concept learned: Text classification and binary prediction.

⚙ Tips to Stay Free-Tier Safe

- Always pick **ml.t3.medium** or **ml.t2.medium** instance types (free-tier eligible).
- **Stop or delete** endpoints once you're done (otherwise you'll be billed).
- Use **JumpStart** or **Autopilot** instead of writing Python code — these are *click-and-run* tools.