Session 2 — Swap the Engine

Space Builder: Emotion Detector

What You'll Build

A Space that detects the emotion in each sentence you type — anger, joy, sadness, fear, surprise, disgust, or neutral. It was trained on tweets!

Step 1 — Create a New Space

1. Go to huggingface.co/new-space (log in if needed)
2. In the "Space name" field, type: emotion-detector
3. Under "Select the Space SDK", choose Gradio
4. Under "Select the Space hardware", choose Free — CPU basic
5. Leave everything else as default
6. Click Create Space

Step 2 — Create the requirements.txt File

1. On your Space page, click the Files tab (near the top)
2. Click Add file → Create a new file
3. In the filename field at the top, type: requirements.txt
4. In the big text area below, copy and paste this exactly:

> *Your Space page will open. It's empty right now — we're about to add the code.*

5. Click Commit new file to main (the blue button at the bottom)

Step 3 — Create the app.py File

1. Click Add file → Create a new file (again)
2. In the filename field, type: app.py
3. In the big text area, copy and paste ALL of the code below:

```
transformers
torch
gradio
```

4. Click Commit new file to main

Step 4 — Wait for It to Build

1. Click the App tab (at the top of your Space page)
2. You'll see "Building" — this takes 2–5 minutes
3. When it's done, your Space will appear!

Step 5 — Try It Out!

1. Paste a text message conversation — does the AI read the emotions right?
2. Try song lyrics or a poem
3. Type something sarcastic — does the model get confused?

Troubleshooting

```
import gradio as gr
from transformers import pipeline
import re

# Load an emotion classification model (trained on tweets)
classifier = pipeline("text-classification", model="j-hartmann/emotion-english-distilroberta-ba
  se")

def analyze_text(text):
    if not text or not text.strip():
        return "Type or paste some text above first!"

    # Split into sentences
    sentences = [s.strip() for s in re.split(r'(?<=[.!?])\s+(?=[A-Z"])', text) if len(s.strip()
  ) > 10]

    if len(sentences) == 0:
        return "I need at least one full sentence. Try typing a bit more!"

    # Classify each sentence
    output_lines = []
    for sentence in sentences:
        result = classifier(sentence)[0]
        label = result["label"]
        score = result["score"]
        output_lines.append(f"{label.upper()} ({score:.0%}): {sentence}")

    return "\n\n".join(output_lines)

demo = gr.Interface(
    fn=analyze_text,
    inputs=gr.Textbox(lines=8, placeholder="Type or paste some text here..."),
    outputs=gr.Textbox(label="Emotion Analysis", lines=12),
    title="Emotion Detector",
    description="Paste any text and see what emotion the AI detects in each sentence. This mode
  l was trained on tweets — how does it handle other kinds of text?",
    examples=[
        ["I can't believe we won the championship! The whole team was screaming. Coach just sto
  od there crying. Best night of my life."],
        ["The test is tomorrow and I haven't started studying. My notes are a mess. I don't eve
  n understand chapter 4. Maybe I should just give up."],
        ["The weather today is partly cloudy with a high of 72. Traffic on the highway is movin
  g smoothly. The library closes at 5pm."],
    ],
)

demo.launch()
```

```
Make sure you copy the ENTIRE code block — from the very first line to the very last. Missing e
  ven one line can cause errors.
```

```
If you see a red error: Click the Logs tab to read the error message. The most common fix is to
   double-check that requirements.txt has the right contents and that app.py was copied complet
  ely.
```

Problem	Fix

"Runtime error"	Check the Logs tab. Usually means a typo in app.py. Re-copy the code carefully.
Space stuck on "Building"	Wait up to 5 minutes. Free CPU Spaces can be slow. If it’s been more than 10 minutes, try deleting the Space and starting over.
"ModuleNotFoundError"	Your requirements.txt is missing a library. Make sure it matches exactly what’s shown above.
Space loads but nothing happens	Make sure the last line of app.py is demo.launch() with no extra spaces before it.