Session 10 — Build Your Own

Space Builder: Your Own AI Tool (Template)

What You'll Build

YOUR project! This is a starter template. You'll change the model, the title, the description, and the examples to make it your own. The comments in the code tell you exactly what to change.

Step 1 — Create a New Space

1. Go to huggingface.co/new-space (log in if needed)

2. In the "Space name" field, type: my-ai-tool

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:

> *This is a TEMPLATE — it works as-is, but you're meant to customize it. The comments marked "CHANGE THIS" tell you exactly what to modify. If you get stuck, the rescue templates are in the session materials.*

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:

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

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. First, get the template working as-is — it does basic sentiment analysis

2. Then change the model name on line 20 to try a different model

3. Update the title, description, and examples to match your new model

Troubleshooting

```
transformers
torch
gradio
```

```
# ======================================
# YOUR SPACE NAME HERE
# ======================================
# To customize this template:
# 1. Change the model (line 20)
# 2. Change the title and description (line 32-33)
# 3. Change the examples (line 34-37)
# 4. Change how results are displayed (line 27)
# ======================================

import gradio as gr
from transformers import pipeline

# CHANGE THIS: Pick your model from https://huggingface.co/models
# Examples:
#    "distilbert-base-uncased-finetuned-sst-2-english"  -> sentiment (positive/negative)
#    "j-hartmann/emotion-english-distilroberta-base"     -> emotions (anger, joy, surprise...)
#    "facebook/bart-large-mnli"                          -> zero-shot (you pick the labels)
#    "distilgpt2"                                        -> text generation
#    "sshleifer/distilbart-cnn-12-6"                     -> summarization
model = pipeline("sentiment-analysis", model="distilbert-base-uncased-finetuned-sst-2-english")

# CHANGE THIS: Your analysis function
def analyze(text):
    if not text or not text.strip():
        return "Enter some text above!"
    result = model(text[:512])[0]
    return f"{result['label']} ({result['score']:.1%} confidence)"

# CHANGE THIS: Title, description, and examples
demo = gr.Interface(
    fn=analyze,
    inputs=gr.Textbox(lines=5, placeholder="Type or paste text here...", label="Input"),
    outputs=gr.Textbox(label="Result"),
    title="My AI Tool",                    # <- Change this
    description="Description here.",     # <- Change this
    examples=[                           # <- Change these
        ["Example input 1"],
        ["Example input 2"],
    ],
)

demo.launch()
```

Make sure you copy the ENTIRE code block — from the very first line to the very last. Missing even 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 completely.

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.