**ECHS Final task**

Text to image synthesis on NVIDIA Jetson Orin Nano Steps:

**Step 1: Set Up Hugging Face API**

1. **Get an API Key:**
   * Log in to [Hugging Face](https://huggingface.co/).
   * Go to your account settings and generate an API token.
2. **Select a Text-to-Image Model:**
   * Use a publicly available model like stabilityai/stable-diffusion-2.

**Step 2: Create a Web Interface**

We’ll create a lightweight web app using **Flask** (a Python-based web framework). The web app will:

1. Accept user input (a text prompt).
2. Send the prompt to the Hugging Face Inference API.
3. Display the generated image on the web page.

Install required dependencies:

*pip3 install flask requests*

**Step 3: Write the Flask Application**

**Step 4: Create the HTML Template**

Save the file as templates/index.html

**Step 5: Run the Web Application**

Run the Flask app from your terminal

*python3 app.py*

Open your browser and go to http://127.0.0.1:5000/.

Enter a text prompt, and the app will display the generated image.

**Alternate APIs**

If you don’t want to use Hugging Face, here are some other options:

1. **DeepAI API**: DeepAI Text-to-Image API
2. **Replicate API**: [Replicate](https://replicate.com/) offers hosted AI models for inference.