Step 1: Import the Translator

from googletrans import Translator

- You are importing the Translator class from the googletrans library.
- Translator is the main tool that lets you:
    - Translate text into another language.
    - Detect the language of a text.
- **Important:** googletrans works by connecting to Google Translate behind the scenes.

Step 2: Create a Translator object

translator = Translator()

- You are creating an instance of the Translator class and storing it in a variable called translator.
- This object is like your “translator tool” that you will use for all translations and detections.
- Without creating this object, you cannot call translate() or detect().

Step 3: Define the translate_text function

def translate_text(text, dest="en"):

- Defines a function named translate_text.
- **Parameters:**
    - text: the text you want to translate.
    - dest: the language you want to translate into (default "en" for English).
- This function will take text and return its translation.

Step 4: Try translating the text

```
try:
    result = translator.translate(text, dest=dest)
    return result.text
```

- Inside the try block:
    1. translator.translate(text, dest=dest):
        - Calls Google Translate to translate your text into the dest language.
        - Returns a Translated object containing details like:

        - text → the translated text
        - src → detected source language
        - pronunciation → how to pronounce it
    2. result.text → gets only the translated text.
- return result.text → sends the translated text back to whoever called the function.

Step 5: Handle translation errors

except Exception as e:

print(f"Translation error: {e}")

return text

- If something goes wrong (like no internet or unsupported language), Python jumps to the except block.
- print(f"Translation error: {e}") → shows the error message for debugging.
- return text → returns the **original text** instead of crashing your program.

Step 6: Define the detect_language function

def detect_language(text):

- Defines a function named detect_language.
- Takes one parameter: text, the text whose language you want to detect.

Step 7: Try detecting the language

try:

result = translator.detect(text)

return result.lang

- translator.detect(text):
    - Sends the text to Google Translate to detect its language.
    - Returns an object containing:
        - lang → the detected language code (like "en" for English, "fr" for French).
        - confidence → how sure Google is about the detection.
- return result.lang → returns only the language code.

Step 8: Handle detection errors

except Exception as e:

print(f"Language detection error: {e}")

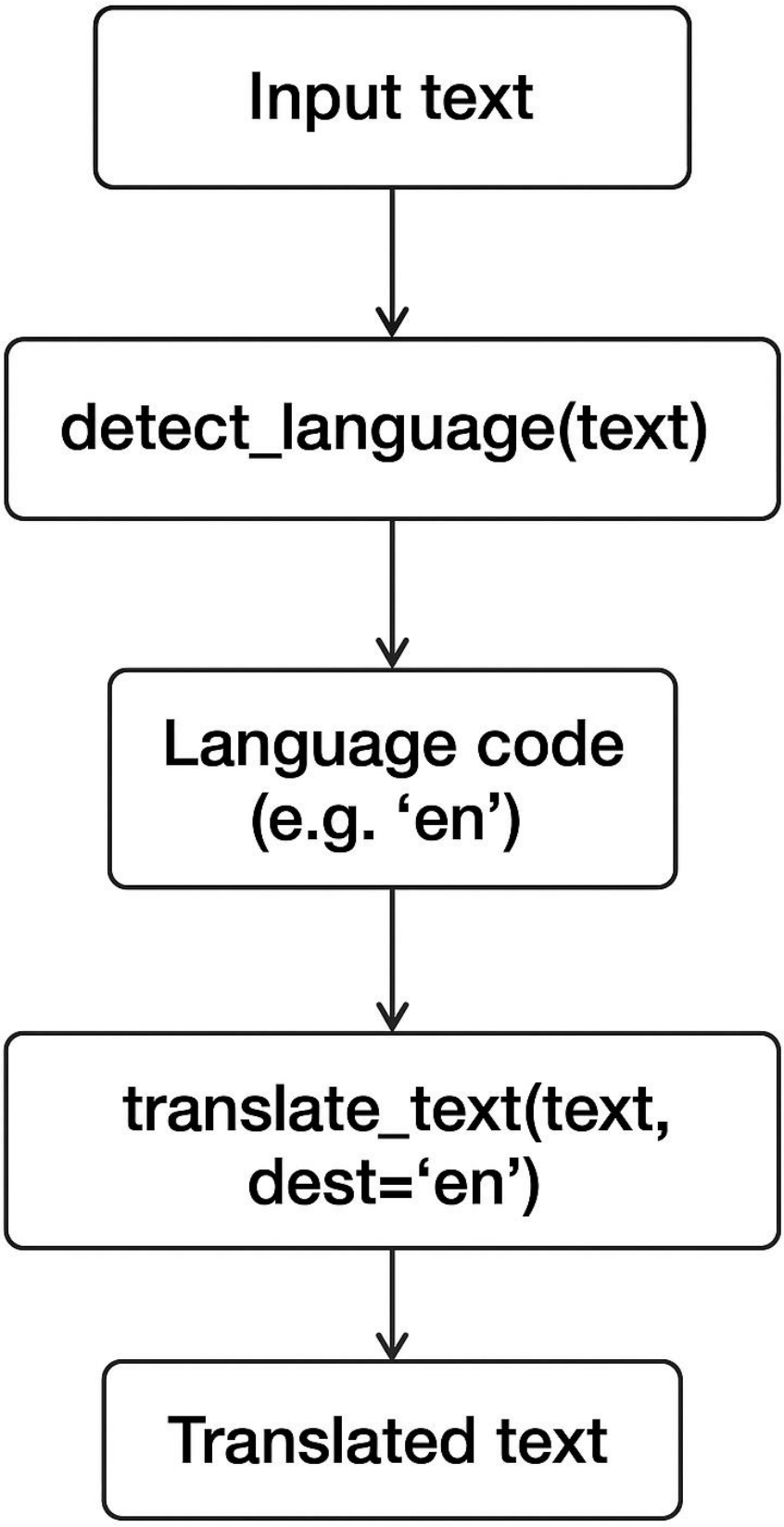
return "en"

- If language detection fails (e.g., network issue), Python jumps to the except block.
- Prints the error message.
- Returns "en" (English) as a **default fallback**.

Step 9: How it works together

1. detect_language("Bonjour") → returns "fr"
2. translate_text("Bonjour", dest="en") → returns "Hello"

- You can use these functions together to automatically translate any text from any language to your desired language.


Input text
detect_language(text)
Language code
(e.g. ‘en’)
translate_text(text,
dest=‘en’)
Translated text