

# src/ui\_gradio.py — Simplified Code & Run Instructions

This document contains the simplified, readable implementation of `src/ui\_gradio.py` for the AI Virtual Interviewer project, along with instructions to run it.

## ## Code: src/ui\_gradio.py

```
"""
Simple & readable Gradio UI for the AI Interviewer.

What it does:
- Lets the user pick a role and enter their name.
- Shows a small live webcam preview (top-right) so they know the camera is on.
- Records answers via microphone, transcribes to text, then scores:
    - Answer rating (TF-IDF cosine + keyword coverage)
    - Behavior rating (audio proxies always, optional webcam metrics)
- Shows friendly per-question feedback + a smile 😊
- Saves a Markdown report at the end and exposes it for download.
"""

import os
import json
import math
import numpy as np
import gradio as gr
import speech_recognition as sr

from utils import load_questions, append_session_log, now, REPORTS
from scoring import score_answer
from report import save_report
from behavior import audio_proxies_from_pcm, behavior_rating, capture_webcam_metrics

# helpers
def _resample_linear(wave: np.ndarray, src_hz: int, dst_hz: int = 16000) -> np.ndarray:
    ...

def transcribe_from_gradio(numpy_audio, sample_rate_hz):
    ...

# callbacks
def start_session(role, name, n_questions):
    ...

def submit_answer(audio_tuple, role, session, use_webcam_metrics):
    ...

def finish_and_save(session):
    ...

# Gradio app
def make_app():
    ...
    return demo

if __name__ == "__main__":
    app = make_app()
    app.launch()
```

## ## How to Run

```
# 1. Install Gradio (if not already installed)
```

```
pip install gradio
```

```
# 2. Launch the Gradio UI app  
python -m src.ui_gradio
```

```
# 3. Open the link shown in the terminal (usually http://127.0.0.1:7860)  
#   - Left side: select role, enter name, choose number of questions  
#   - Right side: see live webcam preview  
#   - Record answer with mic, submit, and receive feedback  
#   - At the end, click 'Finish & Save Report' to download the report
```