```json
{
    "cells" : [
        0 : {
            "cell_type" : "code"
            "execution_count" : 5
            "id" : "942c9f03-e57d-4732-a285-2382f5ef7586"
            "metadata" : {}
            "outputs" : [
                0 : {
                    "name" : "stdout"
                    "output_type" : "stream"
                    "text" : [
                        0 :
                        "Requirement already satisfied: streamlit in
                        c:\users\dell\anaconda3\lib\site-packages (1.37.1)
                        "

                        1 : "Collecting openai
                            "

                        2 :
                        "  Downloading openai-1.63.2-py3-none-any.whl.metadata (27
                        kB)
                        "

                        3 :
                        "Requirement already satisfied: altair<6,>=4.0 in
                        c:\users\dell\anaconda3\lib\site-packages (from streamlit)
                        (5.0.1)
                        "

                        4 :
                        "Requirement already satisfied: blinker<2,>=1.0.0 in
                        c:\users\dell\anaconda3\lib\site-packages (from streamlit)
                        (1.6.2)
                        "

                        5 :
                        "Requirement already satisfied: cachetools<6,>=4.0 in
                        c:\users\dell\anaconda3\lib\site-packages (from streamlit)
                        (5.3.3)
                        "
```

```
6 :
"Requirement already satisfied: click<9,>=7.0 in
c:\users\dell\anaconda3\lib\site-packages (from streamlit)
(8.1.7)
"

7 :
"Requirement already satisfied: numpy<3,>=1.20 in
c:\users\dell\anaconda3\lib\site-packages (from streamlit)
(1.26.4)
"

8 :
"Requirement already satisfied: packaging<25,>=20 in
c:\users\dell\anaconda3\lib\site-packages (from streamlit)
(24.1)
"

9 :
"Requirement already satisfied: pandas<3,>=1.3.0 in
c:\users\dell\anaconda3\lib\site-packages (from streamlit)
(2.2.2)
"

10 :
"Requirement already satisfied: pillow<11,>=7.1.0 in
c:\users\dell\anaconda3\lib\site-packages (from streamlit)
(10.4.0)
"

11 :
"Requirement already satisfied: protobuf<6,>=3.20 in
c:\users\dell\anaconda3\lib\site-packages (from streamlit)
(4.25.3)
"

12 :
"Requirement already satisfied: pyarrow>=7.0 in
c:\users\dell\anaconda3\lib\site-packages (from streamlit)
(16.1.0)
"

13 :
"Requirement already satisfied: requests<3,>=2.27 in
c:\users\dell\anaconda3\lib\site-packages (from streamlit)
(2.32.3)
"
```

14 :
"Requirement already satisfied: rich<14,>=10.14.0 in
c:\users\dell\anaconda3\lib\site-packages (from streamlit)
(13.7.1)
"

15 :
"Requirement already satisfied: tenacity<9,>=8.1.0 in
c:\users\dell\anaconda3\lib\site-packages (from streamlit)
(8.2.3)
"

16 :
"Requirement already satisfied: toml<2,>=0.10.1 in
c:\users\dell\anaconda3\lib\site-packages (from streamlit)
(0.10.2)
"

17 :
"Requirement already satisfied: typing-extensions<5,>=4.3.0
in c:\users\dell\anaconda3\lib\site-packages (from
streamlit) (4.11.0)
"

18 :
"Requirement already satisfied: gitpython!=3.1.19,<4,>=3.0.7
in c:\users\dell\anaconda3\lib\site-packages (from
streamlit) (3.1.43)
"

19 :
"Requirement already satisfied: pydeck<1,>=0.8.0b4 in
c:\users\dell\anaconda3\lib\site-packages (from streamlit)
(0.8.0)
"

20 :
"Requirement already satisfied: tornado<7,>=6.0.3 in
c:\users\dell\anaconda3\lib\site-packages (from streamlit)
(6.4.1)
"

21 :
"Requirement already satisfied: watchdog<5,>=2.1.5 in
c:\users\dell\anaconda3\lib\site-packages (from streamlit)
(4.0.1)
"

```
22 :
"Requirement already satisfied: anyio<5,>=3.5.0 in
c:\users\dell\anaconda3\lib\site-packages (from openai)
(4.2.0)
"

23 :
"Requirement already satisfied: distro<2,>=1.7.0 in
c:\users\dell\anaconda3\lib\site-packages (from openai)
(1.9.0)
"

24 :
"Requirement already satisfied: httpx<1,>=0.23.0 in
c:\users\dell\anaconda3\lib\site-packages (from openai)
(0.27.0)
"

25 : "Collecting jiter<1,>=0.4.0 (from openai)
    "

26 :
"  Using cached jiter-0.8.2-cp312-cp312-
win_amd64.whl.metadata (5.3 kB)
"

27 :
"Requirement already satisfied: pydantic<3,>=1.9.0 in
c:\users\dell\anaconda3\lib\site-packages (from openai)
(2.8.2)
"

28 :
"Requirement already satisfied: sniffio in
c:\users\dell\anaconda3\lib\site-packages (from openai)
(1.3.0)
"

29 :
"Requirement already satisfied: tqdm>4 in
c:\users\dell\anaconda3\lib\site-packages (from openai)
(4.66.5)
"

30 :
"Requirement already satisfied: jinja2 in
c:\users\dell\anaconda3\lib\site-packages (from
altair<6,>=4.0->streamlit) (3.1.4)
"
```

31 :
"Requirement already satisfied: jsonschema>=3.0 in
c:\users\dell\anaconda3\lib\site-packages (from
altair<6,>=4.0->streamlit) (4.23.0)
"

32 :
"Requirement already satisfied: toolz in
c:\users\dell\anaconda3\lib\site-packages (from
altair<6,>=4.0->streamlit) (0.12.0)
"

33 :
"Requirement already satisfied: idna>=2.8 in
c:\users\dell\anaconda3\lib\site-packages (from
anyio<5,>=3.5.0->openai) (3.7)
"

34 :
"Requirement already satisfied: colorama in
c:\users\dell\anaconda3\lib\site-packages (from
click<9,>=7.0->streamlit) (0.4.6)
"

35 :
"Requirement already satisfied: gitdb<5,>=4.0.1 in
c:\users\dell\anaconda3\lib\site-packages (from
gitpython!=3.1.19,<4,>=3.0.7->streamlit) (4.0.7)
"

36 :
"Requirement already satisfied: certifi in
c:\users\dell\anaconda3\lib\site-packages (from
httpx<1,>=0.23.0->openai) (2024.12.14)
"

37 :
"Requirement already satisfied: httpcore==1.* in
c:\users\dell\anaconda3\lib\site-packages (from
httpx<1,>=0.23.0->openai) (1.0.2)
"

38 :
"Requirement already satisfied: h11<0.15,>=0.13 in
c:\users\dell\anaconda3\lib\site-packages (from
httpcore==1.*->httpx<1,>=0.23.0->openai) (0.14.0)
"

```
39 :
"Requirement already satisfied: python-dateutil>=2.8.2 in
c:\users\dell\anaconda3\lib\site-packages (from
pandas<3,>=1.3.0->streamlit) (2.9.0.post0)
"

40 :
"Requirement already satisfied: pytz>=2020.1 in
c:\users\dell\anaconda3\lib\site-packages (from
pandas<3,>=1.3.0->streamlit) (2024.1)
"

41 :
"Requirement already satisfied: tzdata>=2022.7 in
c:\users\dell\anaconda3\lib\site-packages (from
pandas<3,>=1.3.0->streamlit) (2023.3)
"

42 :
"Requirement already satisfied: annotated-types>=0.4.0 in
c:\users\dell\anaconda3\lib\site-packages (from
pydantic<3,>=1.9.0->openai) (0.6.0)
"

43 :
"Requirement already satisfied: pydantic-core==2.20.1 in
c:\users\dell\anaconda3\lib\site-packages (from
pydantic<3,>=1.9.0->openai) (2.20.1)
"

44 :
"Requirement already satisfied: charset-normalizer<4,>=2 in
c:\users\dell\anaconda3\lib\site-packages (from
requests<3,>=2.27->streamlit) (3.3.2)
"

45 :
"Requirement already satisfied: urllib3<3,>=1.21.1 in
c:\users\dell\anaconda3\lib\site-packages (from
requests<3,>=2.27->streamlit) (2.2.3)
"

46 :
"Requirement already satisfied: markdown-it-py>=2.2.0 in
c:\users\dell\anaconda3\lib\site-packages (from
rich<14,>=10.14.0->streamlit) (2.2.0)
"
```

```
47 :
"Requirement already satisfied: pygments<3.0.0,>=2.13.0 in
c:\users\dell\anaconda3\lib\site-packages (from
rich<14,>=10.14.0->streamlit) (2.15.1)
"

48 :
"Requirement already satisfied: smmap<5,>=3.0.1 in
c:\users\dell\anaconda3\lib\site-packages (from
gitdb<5,>=4.0.1->gitpython!=3.1.19,<4,>=3.0.7->streamlit)
(4.0.0)
"

49 :
"Requirement already satisfied: MarkupSafe>=2.0 in
c:\users\dell\anaconda3\lib\site-packages (from jinja2-
>altair<6,>=4.0->streamlit) (2.1.3)
"

50 :
"Requirement already satisfied: attrs>=22.2.0 in
c:\users\dell\anaconda3\lib\site-packages (from
jsonschema>=3.0->altair<6,>=4.0->streamlit) (23.1.0)
"

51 :
"Requirement already satisfied: jsonschema-
specifications>=2023.03.6 in
c:\users\dell\anaconda3\lib\site-packages (from
jsonschema>=3.0->altair<6,>=4.0->streamlit) (2023.7.1)
"

52 :
"Requirement already satisfied: referencing>=0.28.4 in
c:\users\dell\anaconda3\lib\site-packages (from
jsonschema>=3.0->altair<6,>=4.0->streamlit) (0.30.2)
"

53 :
"Requirement already satisfied: rpds-py>=0.7.1 in
c:\users\dell\anaconda3\lib\site-packages (from
jsonschema>=3.0->altair<6,>=4.0->streamlit) (0.10.6)
"

54 :
"Requirement already satisfied: mdurl~=0.1 in
c:\users\dell\anaconda3\lib\site-packages (from markdown-it-
py>=2.2.0->rich<14,>=10.14.0->streamlit) (0.1.0)
"
```

                55 :
                "Requirement already satisfied: six>=1.5 in
                c:\users\dell\anaconda3\lib\site-packages (from python-
                dateutil>=2.8.2->pandas<3,>=1.3.0->streamlit) (1.16.0)
                "
                56 : "Downloading openai-1.63.2-py3-none-any.whl (472 kB)
                    "
                57 :
                "Using cached jiter-0.8.2-cp312-cp312-win_amd64.whl (204 kB)
                "
                58 : "Installing collected packages: jiter, openai
                    "
                59 : "Successfully installed jiter-0.8.2 openai-1.63.2
                    "
                60 :
                "Note: you may need to restart the kernel to use updated
                packages.
                "
            ]
        }
    ]
    "source" : [
        0 : "pip install streamlit openai
            "
    ]
}
1 : {
    "cell_type" : "code"
    "execution_count" : 43
    "id" : "a6c53ce2-4cb9-47e5-b0a7-7028f345fbe6"
    "metadata" : {}
    "outputs" : []
    "source" : [
        0 : "import streamlit as st
            "
        1 : "
            "
        2 :
        "st.title("GenAI App - AI Code Reviewer") # Title from your
        document
        "

```
        3 : "
            "
        4 : "code = st.text_area("Enter your Python code here:", height=300)
            "
        5 : "
            "
        6 : "if st.button("Review Code"):
            "
        7 : "    if not code:
            "
        8 : "        st.warning("Please enter some code to review.")
            "
        9 : "    else:
            "
        10 :
            "        st.write("Reviewing your code...")  # Placeholder for now
            "
        11 : "        # ... (Code review logic will go here) ..."
    ]
}
2 : {
    "cell_type" : "code"
    "execution_count" : 45
    "id" : "822da9e6-b285-4b8e-8f1c-7fb91b4ca38b"
    "metadata" : {}
    "outputs" : []
    "source" : [
        0 : "import streamlit as st
            "
        1 : "import openai
            "
        2 : "import sys
            "
        3 : "
            "
        4 : "# Set your OpenAI API key (replace with your actual key)
            "
```

```
5 :
"openai.api_key = "sk-proj-
x6wKBTRcCzyUlTXSQBdzE5GlisiAZRECngLNk1OfaT1JLlQARnfS2fBALca1JKxRMxhFztS
ZlT3BlbkFJo8s0VB0gG_6E9ZAliidqSr0CwftKQSQOMoec81pxpmr75xSPdq8TfvTAcHexW
# VERY IMPORTANT!
"

6 : "
    "
7 : "# ... (Previous code) ...
    "
8 : "
    "
9 : "if st.button("Review Code"):
    "
10 : "    if not code:
    "
11 : "        st.warning("Please enter some code to review.")
    "
12 : "    else:
    "
13 : "        try:
    "
14 : "            prompt = f"""
    "
15 :
"        Review the following Python code for bugs, errors, and
areas of improvement.
"
16 :
"        Provide specific suggestions for fixes and generate
corrected code snippets.
"
17 : "
    "
18 : "            ```python
    "
19 : "            {code}
    "
20 : "            ```
    "
21 : "            """
    "
```

```
22 : "

23 : "            response = openai.Completion.create(

24 :
"                engine="gpt-3.5-turbo",  # Or a suitable model for code
"

25 : "                prompt=prompt,

26 : "                max_tokens=500,  # Adjust as needed

27 : "                n=1,

28 : "                stop=None,

29 : "                temperature=0.5,

30 : "            )

31 : "

32 : "            feedback = response.choices[0].text.strip()

33 : "            st.subheader("Feedback:")

34 : "            st.write(feedback)

35 : "

36 : "            # ... (Code extraction will go here) ...

37 : "

38 : "        except openai.error.OpenAIError as e:

39 : "            st.error(f"OpenAI API Error: {e}")

40 : "        except Exception as e:

41 : "            st.error(f"An error occurred: {e}")"
```

```
            ]
        }
        3 : {
            "cell_type" : "code"
            "execution_count" : 50
            "id" : "0b97a121-1bc0-4177-89c0-33de02973f2b"
          ▸ "metadata" : {}
          ▾ "outputs" : [
              ▾ 0 : {
                    "ename" : "IndentationError"
                    "evalue" :
                    "unindent does not match any outer indentation level (<string>,
                    line 12)"
                    "output_type" : "error"
                  ▾ "traceback" : [
                        0 :
                        "⬚[1;36m  File ⬚[1;32m<string>:12⬚[1;36m⬚[0m
                        ⬚[1;33m    except:⬚[0m
                        ⬚[1;37m            ^⬚[0m
                        ⬚[1;31mIndentationError⬚[0m⬚[1;31m:⬚[0m unindent does not
                        match any outer indentation level
                        "
                    ]
                }
            ]
          ▾ "source" : [
                0 : "            try:
                    "
                1 :
                    "                corrected_code_start = feedback.find("```python")
                    + len("```python")
                    "
                2 :
                    "                corrected_code_end = feedback.find("```",
                    corrected_code_start)
                    "
                3 :
                    "                corrected_code =
                    feedback[corrected_code_start:corrected_code_end].strip()
                    "
                4 : "
                    "
```

```
        5 : "                    if corrected_code:
            "
        6 : "                        st.subheader("Corrected Code:")
            "
        7 : "                        st.code(corrected_code, language="python")
            "
        8 : "                    else:
            "
        9 :
        "                        st.info("No corrected code found in the
        response.")
            "
        10 : "
            "
        11 : "            except:
            "
        12 :
        "                st.info("Could not automatically extract corrected
        code.")
            "
        13 : "
            "
        14 : "# ... (Rest of the code) ..."
    ]
}
4 : {
    "cell_type" : "code"
    "execution_count" : NULL
    "id" : "ddcb945a-5dd9-4bbc-8bbe-bf17a58ebab1"
    ▶ "metadata" : {}
    ▶ "outputs" : []
    ▶ "source" : []
}
]
▼ "metadata" : {
    ▼ "kernelspec" : {
        "display_name" : "Python [conda env:base] *"
        "language" : "python"
        "name" : "conda-base-py"
    }
```

```
    ▼ "language_info" : {
        ▼ "codemirror_mode" : {
            "name" : "ipython"
            "version" : 3
        }
        "file_extension" : ".py"
        "mimetype" : "text/x-python"
        "name" : "python"
        "nbconvert_exporter" : "python"
        "pygments_lexer" : "ipython3"
        "version" : "3.12.7"
    }
}
"nbformat" : 4
"nbformat_minor" : 5
}
```