

# Internship Project Report - AI Code Reviewer

## Project Title: AI Code Reviewer

### Introduction

The AI Code Reviewer is a Python-based automation tool that helps analyze Python code for quality, formatting, and complexity. It assists developers in writing clean, maintainable, and PEP8-compliant code using a simple Streamlit interface.

### Abstract

This project integrates flake8 for detecting code style issues, black for automatic formatting, and radon for analyzing code complexity. Users can input or upload Python code, and the app generates a full report, improving readability and quality with real-time analysis.

### Tools & Technologies Used

- Python
- Streamlit
- flake8
- black
- radon
- subprocess, tempfile modules

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### **Steps Involved in Building the Project**

1. Designed a Streamlit UI with input area and upload option.
2. Integrated flake8 to display Python code violations.
3. Used black to auto-format code suggestions.
4. Added radon for complexity and maintainability analysis.
5. Displayed all results in an organized layout with export option.
6. Tested the system with different Python scripts.

### **Conclusion**

This project helped me understand how automated code review tools work in the real world. I also gained practical experience using developer tools like flake8, black, and radon, and improved my skills in building Python-based web apps with Streamlit. It was a valuable learning experience.