**INTERNSHIP FINAL REPORT**

Student Name : DHAKSHANA SREE B

University : SRI KRISHNA COLLEGE OF TECHNOLOGY,

COIMBATORE,TAMILNADU.

Major : B.E CSE(ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)

Internship Duration : April 1st, 2025 - May 5th, 2025

Company : Shadow Fox

Domain : PYTHON DEVELOPMENT

Mentor : Mr. Hariharan

Coordinator : Mr. Aakash

**OBJECTIVE**

The objective of this report is to document and present the tasks and learning outcomes accomplished during the internship. It aims to showcase the practical application of foundational and intermediate Python programming skills, including basic syntax, data structures, web scraping, and logic-based problem solving. This report also reflects the progress made, challenges encountered, and knowledge gained throughout the internship experience.

**TASKS AND RESPONSIBILITIES**

1. **Python Programming**:

Completed beginner-level tasks involving the basics of Python, including variables, data types, loops, conditionals, and functions.

2. **Web Scraping**:

Implemented a web scraping project using Python's BeautifulSoup and Requests libraries to extract data from websites.

3. **Word Guessing Game**:

Focused on improving the user experience by designing game logic and adding features such as hints and visual progress.

4. **Collaboration & Research**:

Worked independently on all tasks, but also collaborated with mentors and utilized online resources, such as ChatGPT, for guidance and inspiration.

### **LEARNING OUTCOMES**

1. **Enhanced Python Programming Skills**

Gained strong foundational knowledge of Python syntax and logic

structures.

1. **Understanding of Web Scraping Techniques**

Acquired the ability to extract useful data from websites using

libraries like BeautifulSoup and requests.

1. **Problem-Solving and Logical Thinking**

Developed a word guessing game that improved my logical

thinking and algorithm-building skills.

1. **Independent Research and Debugging**

Strengthened my ability to research coding problems and find

appropriate solutions through online resources.

### **CHALLENGES AND SOLUTION**

**1. Challenge: Understanding the Basics of Python Programming**  
Solution:  
Initially, I found it difficult to grasp the syntax and logic structure of Python. I overcame this by practicing simple programs regularly, referring to Python documentation, and seeking help from online communities. Over time, consistent practice helped me build confidence in writing code independently.

**2. Challenge: Debugging Errors in Code**  
Solution:  
Frequent errors and bugs, especially in logic-based programs like the word guessing game, were a hurdle. I learned to debug by using print statements to trace issues and gradually adopted systematic debugging techniques. This improved my problem-solving ability significantly.

**3. Challenge: Web Scraping Complex Web Pages**  
Solution:  
While scraping websites, dealing with inconsistent HTML structures and dynamic content was challenging. I addressed this by learning how to inspect page elements using browser tools and using libraries like BeautifulSoup effectively. In cases where data was loaded dynamically, I learned about APIs and JavaScript rendering.

**CONCLUSION**

This internship has been a valuable learning journey that allowed me to enhance my technical skills and gain practical experience in Python programming. From writing basic programs to handling intermediate-level tasks like web scraping and developing mini-projects, I have grown more confident in my ability to solve problems and apply logic effectively.

The opportunity to explore real-world scenarios and work independently helped me understand the importance of self-learning, time management, and adaptability. I sincerely thank ShadowFox for providing this platform, which has significantly contributed to my personal and professional development.

**ACKNOWLEDGEMENT**

I would like to express my sincere gratitude to **ShadowFox** for providing me with the opportunity to take part in this internship and showcase the tasks I have completed. This experience has played a key role in improving my practical understanding of Python programming and related concepts.

I would also like to thank my mentor and coordinator,Mr.Hariharan and Mr.Aakash , for their continuous support, guidance, and encouragement throughout the internship. Their valuable insights and feedback have greatly enhanced my learning experience.