Charotar University Of Science & Technology
Faculty Of Technology & Engineering
Chandubhai S. Patel Institute Of Technology
Smt. Kundanben Dinsha Patel Department Of Information Technology

WEEKLY REPORT

Summer Internship 2024

Student Name: Aziz Moriswala Roll No: D22IT211

Week No: 1 Duration: 1st June 2024 : 5th June 2024

Company Name: Prodigy InfoTech

Project Name: Ceaser Cipher tool

Summary of Work done the week (Attach supporting Documents):

Day 1: Understanding and Planning

- **Research and Documentation:** Study the Caesar Cipher algorithm, including how it works for both encryption and decryption.
- **Requirement Analysis:** Identify the functionalities required for the tool (e.g., taking user input for text and key, performing encryption and decryption).
- **Project Planning**: Create a project timeline with milestones and deadlines, outlining daily and overall goals.

Day 2: Setting Up the Development Environment

- **Software Installation:** Install necessary software and libraries such as Python and a text editor or IDE.
- **Version Control Setup:** Initialize a Git repository for version control and create the initial project structure.
- **Pseudocode Development:** Write pseudocode for the encryption and decryption functions to outline the logic.

Day 3: Developing Core Functions

- **Encryption Function:** Implement the function to encrypt text using the Caesar Cipher method, accepting user input for the plaintext and key.
- **Decryption Function:** Implement the function to decrypt text, accepting user input for the ciphertext and key.
- **Initial Testing:** Test both functions with various inputs to ensure they work correctly and handle edge cases.

Day 4: Building the User Interface

- **Interface Design:** Decide on the type of user interface (console-based).
- **Implementation:** Develop the user interface to take inputs for text and key, and to display the encrypted or decrypted text.

- **Integration and Testing:** Integrate the core functions with the user interface and test for usability and functionality.

Day 5: Testing and Documentation

- **Comprehensive Testing**: Perform thorough testing to identify and fix any bugs or issues in the tool.
- **User Documentation:** Write documentation explaining how to use the tool, including examples of encryption and decryption, and installation instructions if needed.
- **Technical Documentation:** Document the code with comments, explanations, and an overview of the algorithm and functions. Prepare a final report summarizing the project objectives, challenges, and achievements.

In this week, I've developed a tool to encrypt & decrypt the text using Ceaser Cipher by using python programming language. In ceaser cipher we have a shift value function which is use to shift the letter by its given shift value, for encryption process we have to add the sihft value in the plain text to get a cipher text and for decryption process we have to subtract the shift value to the cipher text in order to get the plain text.

Plans for next week:

In next week, I will develop a tool which will encrypt & decrypt the image using pixel manipulation.

References:

https://www.geeksforgeeks.org/caesar-cipher-in-cryptography/

Aziz Moriswala
Name & Signature

Dr. Purvi Prajapati
External Guide **Internal Guide**