Terraform Lab: Exploring Function Categories

Objective: In this lab, you will explore a specific function category from the Terraform documentation and apply it practically to the app we are building. This exercise will help you understand how to leverage Terraform functions effectively in your infrastructure-as-code projects.

Prerequisites:

- Basic understanding of Terraform
- Access to the Terraform CLI
- Familiarity with the app we are building (provide brief app details here)

Instructions:

1. **Choose a Function Category:**
    - Go to the Terraform Documentation and explore the available function categories.
    - Select a category that you think would be useful for our app. Examples include:
        - String Functions
        - Numeric Functions
        - Collection Functions
        - Date and Time Functions
        - Encoding and Decoding Functions
        - Hash and Crypto Functions
2. **Select a Function:**
    - Within your chosen category, pick a specific function that you believe could enhance our Terraform configuration for the app.
3. **Implement the Function:**
    - Modify our existing Terraform configuration to incorporate the chosen function.
    - Provide a clear rationale in your documentation for why this function is beneficial for our app.
4. **Test and Validate:**
    - Apply the modified Terraform configuration to ensure that the function behaves as expected.
    - Validate the functionality by reviewing Terraform output and, if applicable, checking the resources created or modified.

5. **Document Your Findings:**
    - Write a short report (approximately 1-2 paragraphs) summarizing your experience:
        - Describe the function you chose and its purpose.
        - Explain how you integrated it into our Terraform configuration.
        - Reflect on any challenges faced and how you overcame them (if applicable).
        - Share any insights gained from using Terraform functions in a practical scenario.
6. **Submit Your Lab Report:**
    - Compile your findings into a document and submit it according to the submission guidelines provided.