Assignment for Day 1: Introduction to DevOps

Company Overview
Motion Recruitment is a high-end technology consulting firm based in the Northern Virginia area. They specialize in solving large-scale and complex problems in computer science and software development. As a new member of the DevOps team, your mission is to understand the core principles of DevOps and familiarize yourself with cloud computing services.

Task Information

As a new member of the DevOps team at Motion Recruitment, you will demonstrate your understanding of DevOps culture, lifecycle, tools, and practices across three cloud platforms: AWS, Azure, and Google Cloud Platform (GCP). This assignment will lay the groundwork for future tasks and projects.

Assignment Details

Objective

To gain foundational knowledge of DevOps principles, tools, and cloud services, and to create an account and initial setup on AWS, Azure, and GCP.

Requirements

1. **Create Cloud Accounts:**
   - **AWS:**
     - Create an AWS account (if you don't already have one).
     - Follow the [AWS account creation guide](#).
   - **Azure:**
     - Create an Azure account using the [Azure free account](#).
   - **GCP:**
     - Create a Google Cloud account using the GCP free tier.
2. **Document the Account Creation Process:**
   - Create a document titled **"Cloud Account Setup"** and describe the steps taken to create accounts on each platform. Include screenshots for each step.
3. **Introduction to DevOps:**
   - Write a brief summary (250-300 words) explaining the following:
     - **DevOps culture and principles**: What does it mean to have a DevOps culture in an organization?
     - **The DevOps lifecycle**: Outline the key phases of the DevOps lifecycle and their importance.
     - **Benefits of DevOps in software development**: Discuss how adopting DevOps can improve software delivery and collaboration.

4. **Explore DevOps Tools:**
   - Choose one tool from each category (CI/CD, Containerization, Infrastructure as Code) and provide:
     - A brief overview (150-200 words) of the tool, its primary purpose, and how it fits into the DevOps lifecycle.
     - Examples of how this tool can be used on AWS, Azure, and GCP. Include links to the official documentation or relevant resources.
5. **Tools Overview:**
   - **CI/CD Tools:** Jenkins, GitHub Actions
   - **Containerization Tools:** Docker, Kubernetes
   - **Infrastructure as Code Tools:** Terraform, AWS CloudFormation, Azure Resource Manager (ARM) templates
6. **Connect with the Community:**
   - Join an online DevOps community or forum (e.g., DevOps Subreddit, Stack Overflow, or DevOps Discord servers).
   - Post a question or engage in a discussion related to DevOps principles or tools. Document your engagement in your assignment submission.

Implementation Guidelines

- Ensure clarity and conciseness in your documentation.
- Use screenshots where applicable to enhance understanding.
- Follow best practices for collaboration and engagement in the community.
- Maintain a structured format for the document (headings, bullet points, etc.).

Submission Instructions

1. Compile your findings and documentation into a single PDF document titled **"DevOps Day 1 Assignment - [Your Name]"**.
2. Include links to any resources or communities you engaged with.
3. Submit the PDF document to your instructor by the end of the day.

Evaluation Criteria

Your assignment will be evaluated based on:

1. Completeness and accuracy of the cloud account creation documentation.
2. Clarity and depth of the summaries on DevOps culture, lifecycle, and benefits.
3. Insightfulness of the tool overviews and relevance to cloud platforms.
4. Engagement in the online DevOps community.
5. Overall organization and professionalism of the submission.

Good luck with your assignment!