PROJECT DESIGN PHASE-2

CLOUD DEPLOYMENT

Date	**2 November 2023**
Project Name	**Project – How to Create a Reel Design Using Canva**

1. Introduction

The Cloud Deployment Documentation provides guidelines for deploying the "Creating Reel Designs Using Canva" project on a cloud infrastructure. This document outlines the setup, deployment process, monitoring, scaling, backup, and disaster recovery strategies.

2. Deployment Overview

The project aims to utilize Canva's design tools to create reel designs for digital marketing. The deployment will be on a cloud infrastructure to ensure scalability and reliability.

3. Infrastructure Setup

3.1. Cloud Service Provider

Select a cloud service provider (e.g., AWS, Azure, GCP) and create an account.

3.2. Virtual Machines

Set up virtual machines (VMs) for hosting the application. Determine the appropriate VM size, instance type, and operating system. Ensure high availability and redundancy where necessary.

3.3. Load Balancer
Implement a load balancer to distribute incoming traffic across multiple VM instances. This improves reliability and performance.

3.4. Databases
Set up databases for storing user data, media assets, and application configurations. Choose a scalable database solution, such as RDS (Relational Database Service) or NoSQL databases based on project requirements.

4. Deployment Process

4.1. Pre-deployment Tasks
Install required dependencies and libraries on VMs.
Secure VM instances by configuring firewalls and access controls.
Configure DNS settings for the project's domain name.

4.2. Deployment Steps
Deploy the application code to VM instances.
Configure the application to integrate with Canva API and other third-party APIs.
Set up media asset storage and ensure it's accessible to the application.
Configure databases and perform data migration, if necessary.
Implement load balancing and routing rules.
Test the application thoroughly.

4.3. Post-deployment Tasks
Monitor resource utilization, application performance, and security.
Implement security best practices, including encryption and access controls.
Continuously update and maintain the infrastructure and application.

5. Monitoring and Scaling

Set up monitoring tools to track system performance, user interactions, and application health. Implement auto scaling policies to automatically adjust the number of VM instances based on traffic and resource utilization.

6. Backup and Disaster RecoverY

Establish backup and disaster recovery strategies for critical data, configurations, and application code. Regularly backup databases and ensure that data can be restored in case of data loss or system failure.