**PROJECT DESIGN PHASE-2**

**CLOUD DEPLOYMENT**

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| **Date** | **03 NOV 2023** |
| **Team ID** | **NM2023TMID04681** |
| **Project name** | **BUILD AN EVENT MANAGEMENT SYSTEM** |
| **Maximum marks** | **2 marks** |

**Deploying an EVENT MANAGEMENT SYSTEM on a cloud platform offers scalability, reliability, and accessibility. Here's a general process for deploying your project on the cloud:**

**Select a Cloud Provider:**

- Choose a cloud provider that best fits your project's needs. Common options include AWS (Amazon Web Services), Azure, Google Cloud Platform (GCP), or other providers like Heroku or DigitalOcean.

**Set Up Cloud Resources:**

- Create the necessary cloud resources, such as virtual machines (EC2 on AWS, VM on GCP), databases (RDS on AWS, Cloud SQL on GCP), storage, and networking components.

**Database Setup:**

- Set up a database to store event data, user profiles, and other information. Ensure that it's properly configured for security, scalability, and redundancy.

Application Deployment:

- Deploy your EVENT MANAGEMENT SYSTEM application code to the cloud infrastructure. This may involve setting up web servers, load balancers, and application containers.

**Scaling and Load Balancing:**

- Configure auto-scaling and load balancing to handle increased traffic during peak times. This ensures that your system can accommodate a growing number of users.

**Domain and SSL Configuration:**

- If you have a custom domain, configure it to point to your cloud resources. Set up SSL certificates to secure your website using HTTPS.

**Data Backup and Recovery:**

- Implement regular data backups and disaster recovery procedures to safeguard against data loss.

**Monitoring and Logging:**

- Set up monitoring and logging tools to keep track of system performance, user activity, and security incidents. Services like AWS CloudWatch, Azure Monitor, or Google Cloud Logging can be useful.

**Security Measures:**

- Implement security best practices, including firewalls, identity and access management (IAM) controls, and encryption for data in transit and at rest.

**Content Delivery Network (CDN):**

- Use a CDN to distribute static assets, ensuring fast content delivery to users worldwide and reducing server load.

**Testing and Staging Environments:**

- Create separate environments for testing and staging, allowing you to verify updates and changes before deploying them to the production environment.

**Continuous Integration/Continuous Deployment (CI/CD):**

- Implement CI/CD pipelines to automate code deployments and ensure that changes are thoroughly tested before reaching the production environment.

**Cost Monitoring and Optimization:**

- Continuously monitor and optimize your cloud usage to control costs. Many cloud providers offer cost management tools to help you with this.

**User Data Privacy and Compliance:**

- Ensure compliance with data protection regulations (e.g., GDPR) and implement user data privacy measures.

**Documentation and Knowledge Sharing:**

- Document your cloud setup and share knowledge with your team to ensure smooth operation and maintenance.

**Support and Incident Response:**

- Develop incident response plans and provide support to address issues promptly.

**Backup Plans and Redundancy:**

- Implement backup plans, redundancy, and failover mechanisms to minimize downtime and data loss.