

## **Cloud Databases – 4-Week Program (2 hours per class)**

### **Class 1: Introduction to Cloud Databases**

- Overview of cloud computing and cloud databases
- Benefits of cloud databases vs. on-premise databases
- Key concepts: SQL vs. NoSQL, database instances, storage, and scalability
- Introduction to popular cloud database services

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### **Class 2: Creating Cloud Databases**

- Setting up **Oracle Cloud Database**
- Setting up **Microsoft SQL Server on the cloud**
- Setting up **MySQL RDS (Relational Database Service)**
- Understanding database configuration, security, and access control
- Hands-on: Creating your first cloud database instance

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### **Class 3: Data Migration**

- Techniques to migrate data from local/on-premise databases to cloud databases
- Tools and services for migration
- Handling large datasets and maintaining data integrity
- Hands-on: Migrating sample data to cloud instances

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### **Class 4: Database Backups & Monitoring**

- Importance of backups and disaster recovery strategies

- Automating backups in Oracle, SQL Server, and MySQL RDS
- Monitoring cloud database performance and metrics
- Hands-on: Setting up monitoring dashboards and alerts
- Best practices for cloud database management

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## **Outcome by the End of 4 Weeks**

- Understanding of cloud database concepts and services
- Ability to create and configure cloud databases (Oracle, SQL Server, MySQL RDS)
- Practical skills in migrating data to the cloud
- Knowledge of backups, monitoring, and maintaining cloud databases
- Confidence to manage cloud database instances effectively