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| **Syllabus for Diploma in “IT, Networking and Cloud”** | | | | | |
| **Elective Subject 2 : Cloud Enterprise Developer : 320 Hrs.** | | | | | |
| **Hour No.** | **Learning outcome** | **Professional Skills (Trade Practical)** | | **Professional Knowledge (Trade Theory)** | |
|  |  | **(With indicative Hours)** | | | |
| 1-200 | Able to Build a web application on modern cloud-based architectures and services | **Skills on Managing application with serverless compute, DevOps and API management Services (50 Hrs)**   * Analyze your web app on migration tools and develop strategy of migration * Create DevOps toolchain for cloud foundry application and enable CI/CD * Create Serverless functionality using AWS Lambda * Create multiple connected functions on AWS Lambda * Create serverless functionality using IBM Cloud Function * Create multiple connected functions on IBM Cloud Functions   **Skills on creating RESTful APIs and working with them (50 hours)**   * Create API on IBM Cloud using API management service with Cloud Function operations * Extend API with multiple related functionalities. * Connect web app hosted in cloud with API service and make functionalities available over different routes to web app * Create containerized application over AWS ECS service using docker images * Scale container application using Kubernetes AWS EKS service   **Skills on hybrid application design and deployment (25 hours)**   * Create hybrid web application (cloud to cloud) using MongoDB Atlas database and web application hosted in IBM Cloud Foundry (PaaS) * Create an on-premises server run hybrid application connected to database hosted in cloud | | **(75 Hrs of Theory)**   * Migrating application to Cloud- planning, strategy, requirements, migration techniques * Understanding DevOps, tools, DevOps services in Cloud * AWS Code Commit, Deploy and Pipeline * IBM Cloud DevOps Toolchain & Services * Understanding REST API, API services in IBM and AWS Cloud. * Serverless architecture and related services * Container applications, docker, Kubernetes, services in cloud supporting container applications * Hybrid Application scenarios, architectures and best practices | |
| 201-320 | Able to deploy cloud application on hybrid architectures | | Projects: (120 Hrs)  Create a small data analytics dashboard application and host in cloud environment. (Suggested: Heroku App Cloud Environment) | |
|  | **Revision** | | | |
|  | **Examination** | | | |