VTU Virtual Internship Program

WEEK	DAY	Module Name	Module content	LAB
1	1	**Program Orientation**	Course orientation ,Evaluation metrics,Evaluation Criteria,Live and Recorded Classes deails	
	2	**Pre-Project Development Courses**	Agile principle,Scrum Framework,User stories,	
	3		Repositories and Branching, Pull Requests and Code Reviews, GitHub Actions,	
	4		user-focused approach to solving problems through empathy, creativity, and iteration.	
2	1	**Basic Understanding of Cloud Computing Concepts**	Basic Networking Knowledge: Networking Fundamentals: Understanding IP addresses, DNS, firewalls, load balancing, VPNs, and virtual networks.	
	2		HTTP/HTTPS Protocols: How the web works in terms of communication protocols.	
	3		cloud service models (IaaS, PaaS, SaaS), and cloud deployment models (public, private, hybrid).	
	4		Storage Basics:Object storage ,block storage and file storage	
3	1	**Containerization and Virtualization**	Knowledge of web development technologies (HTML, CSS, JavaScript) and RESTful APIs	
	2			
	3			
	4		Introductory knowledge of major cloud platforms (e.g., IBMCLOUD,AWS, Azure, Google Cloud) and their key services	
4	1	**Introduction to Cloud Computing and IBM Cloud**	IBM Cloud Overview: Key features, services, and market positioning	Objective: Set up an IBM Cloud account, navigate the IBM Cloud console, and explore available services and features. Lab Experiment: Implementing Cloud Service Models
	2		Comparison with Other Cloud Providers: AWS, Azure, Google Cloud	
	3		IBM Cloud ID Creation and Platform overview	
	4		IBM Cloud Architecture: Overview of the IBM Cloud architecture and key components	
5	1	**Cloud Application Development**	Introduction to IBM Cloud Services	LAB :Getting Started with Code Engine Apps on IBM CLOUD
	2		Watson AI, Cloud- native application development	
	3		Introduction to IBM CODE Engine	
6	1	**Cloud Application Development**	DevOps practices in cloud application development	
	2		Intoduction to IBM Cloud tools for application , Integrating APIs and	
	3		Introduction to IBM Continuous Delivery	
7	1	**REST Architecture and Watson API**	Understanding REST Architecture	LAB :Integrate Watson's cognitive services into your app using a RESTful approach
	2		Setting Up IBM Watson API	
	3		REST API Interactions with Different Watson Services	
8	1	**IBM Cloud Services**	Introduction to Data Services on IBM Cloud	LAB :IBM Cloud and Cloudant
	2		Pratice Watson AI services	
	3		Integrate AI services with Watson,adding Data storage and Analytics	
9	1	**Advanced Cloud Application Management**	Introduction to Containerization and Docker Kubernetes , Basics Overview	Lab Experiment : Develop the IBM Cloud app
	2		Deploying and Managing Containerized Applications, Kubernetes	
	3		Building and Deploying Functions on IBM Cloud Functions, Use Cases for	
10	1	**IBM Cloud DevOps Services**	IBM Kubernetes Service (IKS): Introduction and key features	
	2		Understanding Serverless Architecture Concepts and Use Cases for	
	3		Building and Deploying Functions on IBM Cloud Functions	
11	1	**Cloud Data Management**	Cloud Database Management and Data Services, Cloud-Based Databases:	Lab Experiment: Containerize a sample application using Docker, and deploy it to IBM Cloud.
	2		Data Integration and Management in the Cloud	
	3		IBM Cloud Security Features and Best Practices, Regulatory Compliance	
12		**Project Work**		
13				
14				