

**CSA1503 Cloud computing and big data analytics for IOT**

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**List of Experiments**

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| **S.No** | **Question / Experiment** | **CO** | **Blooms Level** |
| 1 | Create a simple cloud software application for Flight Reservation System using any Cloud Service Provider to demonstrate SaaS | CO1 | BL6 |
| 2 | Create a simple cloud software application for Online Shopping E-Commerce Platform using any Cloud Service Provider to demonstrate SaaS. | CO1 | BL6 |
| 3 | Create a simple cloud software application for Property Buying & Rental process (In Chennai city) using any Cloud Service Provider to demonstrate SaaS | CO1 | BL6 |
| 4 | Create a simple cloud software application for Car Booking Reservation System using any Cloud Service Provider to demonstrate SaaS. | CO1 | BL6 |
| 5 | Create a simple cloud software application for Library book reservation system for SIMATS library using any Cloud Service Provider to demonstrate SaaS | CO1 | BL6 |
| 6 | Demonstrate virtualization by Installing Type-2 Hypervisor in your device, create and configure VM image with a Host Operating system (Either Windows/Linux). | CO2 | BL6 |
| 7 | Create a Virtual Machine with 1 CPU, 2GB RAM and 15GB storage disk using a Type 2 Virtualization Software and change the Hardware Compatibility of  that VM. | CO2 | BL6 |
| 8 | Create a Virtual Hard Disk and allocate the storage using VM ware Workstation. | CO2 | BL6 |
| 9 | Create a Snapshot of a VM and Test it by loading the Previous Version/Cloned VM. | CO2 | BL6 |
| 10 | Create a Cloning of a VM and Test it by loading the Previous Version/Cloned VM. | CO2 | BL6 |
| 11 | Demonstrate Virtual Box by Installing Type-2 Hypervisor in your device , create and configure VM image with a Host Operating system as Linux. | CO2 | BL6 |
| 12 | Change the Hardware compatibility of a Virtual Box by clone which is already created and configured. | CO2 | BL6 |
| 13 | Create a Cloning of a VM in Virtual Box and Test it by loading the Previous Version/Cloned VM. | CO2 | BL6 |
| 14 | Create a Virtual Box Snapshot and Cloning of a Virtual Machine and Test it by loading the Cloned Virtual Machine. | CO2 | BL6 |
| 15 | Demonstrate how you will a Configure a VM instance using virtual box in your local machine and allocate CPU, memory and storage space as per a specified requirement. Write the steps for Installation of Guest OS (Ubuntu) image in that instance. | CO2 | BL6 |
| 16 | Demonstrate Infrastructure as a Service (IaaS) by creating a resources group using a Public Cloud Service Provider (Azure), configure with minimum CPU, RAM, and Storage. | CO1 | BL6 |
| 17 | Demonstrate Infrastructure as a Service (IaaS) by creating a Virtual Machine using a Public Cloud Service Provider (Azure), configure with required  memory and CPU. | CO1 | BL6 |
| 18 | Demonstrate Infrastructure as a Service (IaaS) by establishing the remote connection, launch the created VM image and run in your desktop | CO1 | BL6 |
| 19 | Create a Simple Web Application using Java or Python and host it in any Public Cloud Service Provider (Azure/GCP/AWS) to demonstrate Platform as a Service (PaaS). | CO1 | BL6 |
| 20 | Demonstrate Platform as a Service (PaaS) create and configure a new VM Image in any Public Cloud Service Provider to get the Ubuntu Server 22.04 LTS. | CO1 | BL6 |
| 21 | Demonstrate Database as a Service (DaaS) by creating and configuring a new VM Image in any Public Cloud Service Provider. | CO3 | BL6 |
| 22 | Create and manage Email Communication Service resources using any Public Cloud Service Provider (Azure/GCP/AWS) to demonstrate the Communication as a Service (CaaS). | CO3 | BL6 |
| 23 | Create a Storage service using any Public Cloud Service Provider (Azure/GCP/AWS) and check the public accessibility of the stored file to demonstrate Storage as a Service. | CO3 | BL6 |
| 24 | Create a SQL storage service and perform a basic query using any Public Cloud Service Provider (Azure/GCP/AWS) to demonstrate Database as a Service (DaaS). | CO3 | BL6 |
| 25 | Demonstrate Storage as a Service (SaaS) by creating and configuring a new VM Image from the Market Place and compute the expenses incurred using any Public Cloud Service Provider. | CO3 | BL6 |