**SAVEETHA SCHOOL OF ENGINEERING**

**SAVEETHA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCES**

**INSTITUTE OF CSE**

**CSA15- CLOUD COMPUTING AND BIG DATA ANALYTICS**

**LIST OF EXPERIMENTS**

1. Create a simple cloud software application for Flight Reservation System using any Cloud Service Provider to demonstrate SaaS include the necessary fields such as one way, round trip, From, to, Departure, Departure, Travelers & Class, Fare Type, International and Domestic Flights etc.
2. Create a simple cloud software application for Property Buying & Rental process (In Chennai city) using any Cloud Service Provider to demonstrate SaaS include the necessary fields such as Buy, Rent, commercial, Rental Agreement , Rental Agreement, Area, place, Range, property value etc.
3. Create a simple cloud software application for Car Booking Reservation System using any Cloud Service Provider to demonstrate SaaS include the necessary fields such as search for cabs, from, to, rental , out station, Package type, hours/Days etc.
4. Create a simple cloud software application for Library book reservation system for SIMATS library using any Cloud Service Provider to demonstrate SaaS include the necessary fields such as Title of the book, author, publications, Year, edition, no of copies, Rack no, status (taken/returned) etc.
5. Create a simple cloud software application for Mark Sheet Processing System using any Cloud Service Provider to demonstrate SaaS include the necessary fields such as name of the student, Reg no of the student , Subjects , Marks, Average, percentage, rank, overall performance etc.
6. Create a simple cloud software application for Payroll Processing System using any Cloud Service Provider to demonstrate SaaS include the necessary fields such as Name of the employee, experience in present org , over all experience, basic pay, HRA, DA, TA, net pay, gross pay etc.
7. Create a simple cloud software application for Students Attendance System using any Cloud Service Provider to demonstrate SaaS include the necessary fields such as name of the students, course, present , Absent, course attendance, OD request, grade, attendance percentage, etc.
8. Create a simple cloud web application for student counselling system using any Cloud Service Provider to demonstrate SaaS with the fields of student name, age, address, phone, subjects studied, Year of passing, percentage of marks, domain interest, etc.
9. Create a simple cloud software application for Hospital information system for SIMATS Hospital using any Cloud Service Provider to demonstrate SaaS with fields of patient name, age, address, phone, email, Attender name, attender phone, doctor name, diseases, etc.
10. Create a simple cloud software application to run a c program to display the student information using any Cloud Service Provider to demonstrate SaaS with the template of student name, reg no, address, phone, age, courses, grades and attendance report, progress report, Semester mark sheet forms
11. Create a simple cloud software application for online super market using any Cloud Service Provider to demonstrate SaaS with the template of customer name, address, phone, email, items, quantity etc. with the item classification form.
12. Demonstrate virtualization by Installing Type-2 Hypervisor in your device, create and configure VM image with a Host Operating system (Either Windows/Linux).
13. Create a Virtual Machine with 1 CPU, 2GB RAM and 15GB storage disk using a Type 2 Virtualization Software.
14. Create a Virtual Hard Disk and allocate the storage using VM ware Workstation
15. Create a Snapshot of a VM and Test it by loading the Previous Version/Cloned VM
16. Create a Cloning of a VM and Test it by loading the Previous Version/Cloned VM
17. Change Hardware compatibility of a VM (Either by clone/create new one) which is already created and configured.
18. Install Virtualbox/VMware Workstation with different flavours of linux or windows OS on top of your present windows environment.
19. Install a C compiler in the virtual machine created using virtual box / VM Ware Workstation / Player and execute Simple C Programs.
20. Install Virtualbox with different flavours of linux or windows OS on top of windows 10 using custom installation.
21. Install Virtualbox/VMware Workstation with different flavours of linux or windows OS on top of windows 7 or 8.
22. To write a procedure to run the virtual machine of different configuration and to check how many virtual machines can be utilized at a particular time.
23. Write a Procedure To Attach Virtual Block To The Virtual Machine And Check Whether It Holds the Data Even After The Release Of The Virtual Machine
24. To showcase the virtual machine migration based on the certain condition from one host to the other.
25. 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.
26. Demonstrate Infrastructure as a Service (IaaS) by creating a Virtual Machine using a Public Cloud Service Provider (Azure), configure with required memory and CPU.
27. Demonstrate Infrastructure as a Service (IaaS) by establishing the remote connection, launch the created VM image and run in your desktop.
28. Demonstrate Platform as a Service (PaaS) create and configure a new VM Image in any Public Cloud Service Provider
29. 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).
30. Demonstrate Storage as a Service (SaaS) create and configure a new VM Image in any Public Cloud Service Provider
31. 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.
32. Database as a Service (DaaS) create and configure a new VM Image in any Public Cloud Service Provider
33. 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)
34. 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
35. Demonstrate Platform as a Service (PaaS) create and configure a new VM Image in any Public Cloud Service Provider to get windows server Gen2.
36. Demonstrate Platform as a Service (PaaS) create and configure a new VM Image in any Public Cloud Service Provider to get Microsoft windows 10.
37. Demonstrate Platform as a Service (PaaS) create and configure a new VM Image in any Public Cloud Service Provider to get Windows Server 2019 Small.
38. Perform the basic configuration setup for installing HADOOP 2.x like creating the HDUSER and SSH localhost
39. Install Hadoop 2.x and configure the Name Node and Data Node.
40. Launch the Hadoop 2.x and test the Map-Reduce Platform with Hadoop.