NETWORKING & SYSTEM ADMINISTRATION LAB
(20MCA136)

LAB RECORD

Submitted in partial fulfilment of the requirements for the award of the degree of Master of Computer Applications of A P J Abdul Kalam Technological University, Kerala.

Submitted by:

SREYAS SATHEESH (SJC23MCA-2053)

MASTER OF COMPUTER APPLICATIONS

ST. JOSEPH'S COLLEGE OF ENGINEERING AND TECHNOLOGY, PALAI

CHOONDACHERRY P.O, KOTTAYAM

KERALA

May 2024

ST. JOSEPH' S COLLEGE OF ENGINEERING AND TECHNOLOGY, PALAI

(An ISO 9001: 2015 Certified College)

CHOONDACHERRY P.O, KOTTAYAM, KERALA

CERTIFICATE

This is to certify that the Networking & System Administration Lab Record (20MCA136) submitted by **Sreyas Satheesh**, a student of **Second** semester **MCA** at **ST. JOSEPH'S COLLEGE OF ENGINEERING AND TECHNOLOGY, PALAI** in partial fulfilment for the award of Master of Computer Applications is a bonafide record of the lab work carried out by him under our guidance and supervision. This record in any form has not been submitted to any other University or Institute for any purpose.

Dr. Rahul Shajan
Associate Professor
(Head, Department of
Computer Application**)**

Mr. Anish Augustine K
Assistant Professor,
Dept. of Computer Application
(Faculty In-Charge)

Submitted for the End Semester Examination held on ————————————

Examiner 1

Examiner 2

DECLARATION

I Sreyas Satheesh, do hereby declare that the Networking & System Administration Lab Record (20MCA136) is a record of work carried out under the guidance of Mr. Anish Augustine K, Asst. Professor, Department of Computer Applications, SJCET, Palai as per the requirement of the curriculum of Master of Computer Applications Programme of A.P.J Abdul Kalam Technology University, Thiruvananthapuram. Further, I also declare that this record has not been submitted, full or part thereof, in any University / Institution for the award of any Degree / Diploma.

Place: Choondacherry   SREYAS SATHEESH

Date :   (SJC23MCA-2053)

DEPARTMENT OF COMPUTER APPLICATIONS

VISION

To emerge as a center of excellence in the field of computer education with distinct identity and quality in all areas of its activities and develop a new generation of computer professionals with proper leadership, commitment and moral values.

MISSION

- Provide quality education in Computer Applications and bridge the gap between the academia and industry.
- Promoting innovation research and leadership in areas relevant to the socio-economic progress of the country.
- Develop intellectual curiosity and a commitment to lifelong learning in students, with societal and environmental concerns.

COURSE OUTCOMES:

After the completion of the course 20MCA136 Networking & System Administration Lab the student will be able to:

CO 1	Install and configure common operating systems.	K3 (Apply)
CO 2	Perform system administration tasks.	K3 (Apply)
CO 3	Install and manage servers for web applications.	K2 (Understand)
CO 4	Write shell scripts required for system administration.	K3 (Apply)
CO 5	Acquire skill sets required for a DevOps.	K3 (Apply)

CONTENT

5	File system hierarchy in a common Linux distribution	63	21-03-2024
6	Installation and configuration of LAMP stack. Deploy in an open-source application such as phpMyAdmin and WordPress.	68	27-03-2024
7	Build and install software from source code, familiarity with make and cmake utilities expected	74	03-04-2024
8	Introduction to command line tools for networking IPv4 networking, network commands	76	11-04-2024
9	Analyzing network packet stream using tcpdump and Wireshark	79	17-04-2024
10	Introduction to Hypervisors and VMs, Xen or KVM Introduction to Containers: Docker, installation and deployment	81	24-04-2024
11	Installing and configuring modern frameworks like Laravel	85	02-05-2024
12	Ansible play book deployment		04-05-2024