AMBALA COLLEGE OF ENGINEERING AND APPLIED RESEARCH, AMBALA

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Lecture Plan (PE-CS-S314A)

Name of the Faculty : Er. Rajwinder Kaur (Theory & Practical)
Discipline : CSE
Semester : 6th
Subject : Unix & Linux Programming
Lesson Plan Duration : 15 weeks (from Feb 2024 to June 2024)

**** Work Load (Lecture/Practical) per week (in hours): Lectures-03, Practicals-04**

Week	Theory		Practical	
	Lecture Day	Topic	Practical Day	Topic
1st	1st	Linux Startup: User accounts, accessing Linux - starting and shutting processes, Logging in and Logging out	1st	Install LINUX on a PC having some other previously installed operating system. All operating systems should be usable.
	2nd	Unix commands like zip, unzip, pack, unpack, compress, uncompress		
	3rd	Various types of shells,Shell Programming		
2nd	4th	Unix file system: Linux/Unix files, i-nodes and structure	2nd	To Study Linux and its basic Commands.
	5th	file system related commands, Shell as command processor		
	6th	shell variables, creating command substitution		
3rd	7th	scripts, functions, conditionals, loops, customizing environment	3rd	As supervisor create and maintain user accounts.
	8th	Class Test		
	9th	Shell scripts, Regular Expressions and Filters: Introducing regular expressions patterns		
4th	10th	Regular Expressions: syntax, character classes, quantifiers	4th	To study vi editor
	11th	introduction to grep and		

		programming		
	12th	introduction to grep, egrep and programming		
5th	13th	introduction to sed and programming	5th	Using bash shell develop simple programs
	14th	programming with awk		
	15th	Programming with perl		
6th	16th	File Compression Techniques		
	17th	Data redundancy elimination using fingerprint generation deduplication	6th	Write a script to Check whether a number is even or odd.
	18th	Data similarities removal using delta techniques for data reduction storage		
7th	19th	Parallel compression with Xdelta utility		
	20th	Assignment(Data techniques) and Revision	7th	Using bash shell develop simple shell programs.
	21st	The C Environment: C compiler		
8th	22nd	The C Environment: C compiler		
	23rd	The C Environment: C programmes	8th	Write a script to check whether a number is even or odd.
	24th	vi editor, compiler options		
9th	23rd	sheel scripts using c		
	24th	managing projects, memory management	9th	Internal viva 1
	25th	use of makefile, cmake		
	26th	Class Test		
10th	27th	calculations, memory management		
	28th	static and dynamic memory	10th	Develop advanced shell Scripts using grep.
	29th	static and dynamic libraries, dynamic loader		
11th	30th	Debugging tools like gdb		
	31st	fixed-size and variable-size blocks of data files chunks divisor chunking techniques like Frequency Based Chunking	11th	Develop advanced shell Scripts using sed.
	32nd	fixed-size and variable-size blocks of data files chunks divisor chunking techniques like Frequency Based Chunking		

12th	33rd	Content Defined Chunking Unix based open source coding	12th	Compile and debug various C programs using different options.
	34th	Processes in Linux: Processes		
	35th	starting and stopping processes		
13th	36th	initialization processes, rc and init files	13th	Write a program to count from 1 to 10.
	37th	job control - at, batch, cron, time		
	38th	network files, security, privileges		
14th	39th	authentication,password administration	14th	To find the biggest and smallest of three numbers.
	40th	archiving, Signals and signal handlers		
	41st	Threading, Linux I/O system.		
15th	42nd	Networking tools like ping, telnet, ftp, route		
	43rd	Firewalls and security	15th	Final Internal viva
	44th	Backup and Restore tar, cpio, Case Study: PCOMPRESS open source free software		

Er.Rajwinder Kaur

Faculty

Er.Seema Rani

Co-ordinator