

GANPAT UNIVERSITY									
FACULTY OF ENGINEERING & TECHNOLOGY									
Programme	Bachelor of Technology				Branch/Spec.	Computer Science & Engineering (CS)			
Semester	VI				Version	1.0.0.0			
Effective from Academic Year			2022-23		Effective for the batch Admitted in			June 2021	
Subject code	2CSE609		Subject Name		DATA SECURITY SYSTEMS				
Teaching scheme					Examination scheme (Marks)				
(Per week)	Lecture(DT )		Practical(Lab. )		Total		CE	SEE	Total
	L	TU	P	TW					
Credit	3	0	2	0	5	Theory	40	60	100
Hours	3	0	4	0	7	Practical	60	40	100
Pre-requisites:									
Knowledge of SQL queries and other databases, Knowledge of advanced UNIX commands, Familiarity with data protection standards									
Learning Outcome:									
After Successful completion of the course, students will be able to:									
<ul style="list-style-type: none"> <li>● Understand data security and its importance</li> <li>● Understand Different Data Security Compliance and Standard</li> <li>● Discover data security vulnerabilities in real-time</li> <li>● Protect critical data with secure solutions</li> </ul>									
Theory syllabus									
Unit	Content								Hrs
1	<b>Data Security Overview and Architecture:</b> Overview, Functionality, Components, Architecture, Architectural Components, Capturing database traffic, Using Aggregation and Central Management								7
2	<b>User Interface:</b> Navigating the user interface, Using the command line interface (CLI), Access Management								8
3	<b>System View and Data Management:</b> System View and Configuration, Data Management, Groups, Building groups, Populating Groups								7
4	<b>Policy Management:</b> Policy Overview, Installing and Creating Policies, Access Rules, Exception and Extrusion Rules, Selective Audit Trail Policy, Policy Rule Order and Logic, S-GATE								7
5	<b>Auditing, Vulnerability Assessment, and Discovery:</b> Using the configuration Auditing System (CAS), Performing Vulnerability Assessment, Using Database Discovery, Custom Queries and Reports								8
6	<b>Compliance Workflow Automation:</b> Creating a Compliance Workflow, Managing Audit Results, File Activity Monitoring, File Activity Monitoring Components, Organizing Files, Creating Policies that manage files								8
Suggested Practical List									
Practical contents will be based on following concepts:									
<ul style="list-style-type: none"> <li>● Guradium Interface</li> <li>● Data Extraction</li> <li>● Data Security Policy</li> <li>● Data Auditing</li> </ul>									

Text Books												
1	Data driven Security- Analysis, Visualization and dashboards by Jay Jacobs, Bob Rudis Wiley Publication.											
Reference link												
1	Deployment Guide for InfoSphereGuardium By Whei-Jen Chen, Boaz Barkai, Joe M DiPietro, VladislavLangman, Daniel Perlov, Roy Riah, Yosef Rozenblit, Abdiel Santos, Redbooks											
Course Outcomes:												
COs	Description											
CO1	Understand data security and its importance											
CO2	Understand Different Data Security Compliance and Standard											
CO3	Discover data security vulnerabilities in real time											
CO4	Protect critical data with secure solutions											
Mapping of CO and PO:												
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	1	2	2	1	1	1	0	1	2	2
CO2	3	3	3	3	3	2	3	3	1	1	2	1
CO3	3	2	2	3	3	2	3	3	1	3	3	2
CO4	3	2	2	3	3	2	3	3	1	2	2	2