CO-PO-PSO Mapping Table

# 1. Course Outcomes (COs)

* CO1: Define key terms and components related to database clustering and distributed databases.
* CO2: Explain the processes for deploying, monitoring, and managing database clusters.
* CO3: Apply CRUD operations, automation tools, and cluster monitoring utilities to manage data and nodes.
* CO4: Analyze performance metrics and identify solutions to cluster connectivity and latency problems.
* CO5: Evaluate the effectiveness of security mechanisms and backup strategies in a database system.
* CO6: Design and implement cluster configurations and communication architectures for different scenarios.

# 2. Program Outcomes (POs)

* PO1: Engineering Knowledge
* PO2: Problem Analysis
* PO3: Design/Development of Solutions
* PO4: Conduct Investigations
* PO5: Modern Tool Usage
* PO6: Engineer & Society
* PO7: Environment & Sustainability
* PO8: Ethics
* PO9: Individual & Team Work
* PO10: Communication
* PO11: Project Management
* PO12: Life-long Learning

# 3. Program Specific Outcomes (PSOs)

* PSO1: Ability to design and manage data-centric solutions using modern database technologies.
* PSO2: Ability to implement secure, scalable, and fault-tolerant distributed database systems.

# 4. CO-PO-PSO Mapping Table

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CO \ PO/PSO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
| CO1 | 3 | 2 | 1 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 2 | 2 |
| CO2 | 3 | 3 | 2 | 2 | 3 | 1 | 0 | 1 | 1 | 2 | 1 | 2 | 3 | 2 |
| CO3 | 3 | 3 | 3 | 2 | 3 | 1 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 |
| CO4 | 3 | 3 | 2 | 3 | 3 | 1 | 0 | 1 | 1 | 2 | 2 | 3 | 2 | 3 |
| CO5 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 3 | 3 | 3 |
| CO6 | 3 | 3 | 3 | 3 | 3 | 1 | 0 | 1 | 2 | 2 | 2 | 3 | 3 | 3 |