



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)



Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai
Accredited by NAAC-UGC with 'A++' Grade (Cycle III) & Accredited by NBA (B.E - CSE, EEE, ECE, Mech & B.Tech.IT)
COIMBATORE-641 035, TAMIL NADU

DEPARTMENT OF COMPUTER APPLICATIONS

19CAE716 – DATA SCIENCE

UNIT – I: INTRODUCTION TO DATA SCIENCE

TOPIC: OWNERS OF THE DATA



Key Roles in Data Governance

Data governance includes processes for ensuring the usability, integrity, availability, and security of data within organizational systems. Often, the core goal of data governance is to prevent misuse and unauthorized access while ensuring accuracy, consistency, and trustworthiness in regard to data.

In the world of data governance, there are three primary responsibility levels.

- ✓ **Data Owner**
- ✓ **Data Steward**
- ✓ **Data Custodian**





Data Owners

Data Ownership

Manage data integrity

Data is a competitive advantage

You can take action from your data

- ✓ The data owner is accountable for a particular dataset, and it's their job to manage that data and the risk that comes with it.
- ✓ Generally, data owners are the ones that have to ensure various definitions are in place.
- ✓ Ensuring data quality and taking action if issues are discovered also fall in their lane.
- ✓ Managing data quality reporting is another core responsibility.
- ✓ Data owners are often required to ensure that all company policies and regulatory compliance needs are met.
- ✓ This can include the proper classification of data, ensuring correct management, guaranteeing appropriate levels of security, and establishing access control protocols.
- ✓ However, data owners aren't necessarily the ones that have to handle the more technical aspects that ensure their responsibilities are handled.
- ✓ Instead, they can coordinate with subject-matter experts, effectively directing tasks as necessary to comply with data governance policies or various requirements.



Role of Data Owners

- ✓ Data owners play a critical role in an organization's operations. Someone has to bear the final responsibility for sensitive data; the data owner holds that accountability and oversees that data, reducing the risk of mishaps such as improper storage or faulty access controls.
- ✓ Since having a single person oversee all of the data an organization collects is impractical – if not impossible – companies typically separate out the responsibilities based on functional areas.
- ✓ The goal is to select employees with the proper core knowledge, the right access to resources, and the personal motivation to ensure datasets are handled correctly and that all policy and regulatory compliance needs are met.
- ✓ Data owners then have the ability to delegate out tasks relating to the dataset, often by building a team that covers various data-related responsibility levels.



Data Stewards

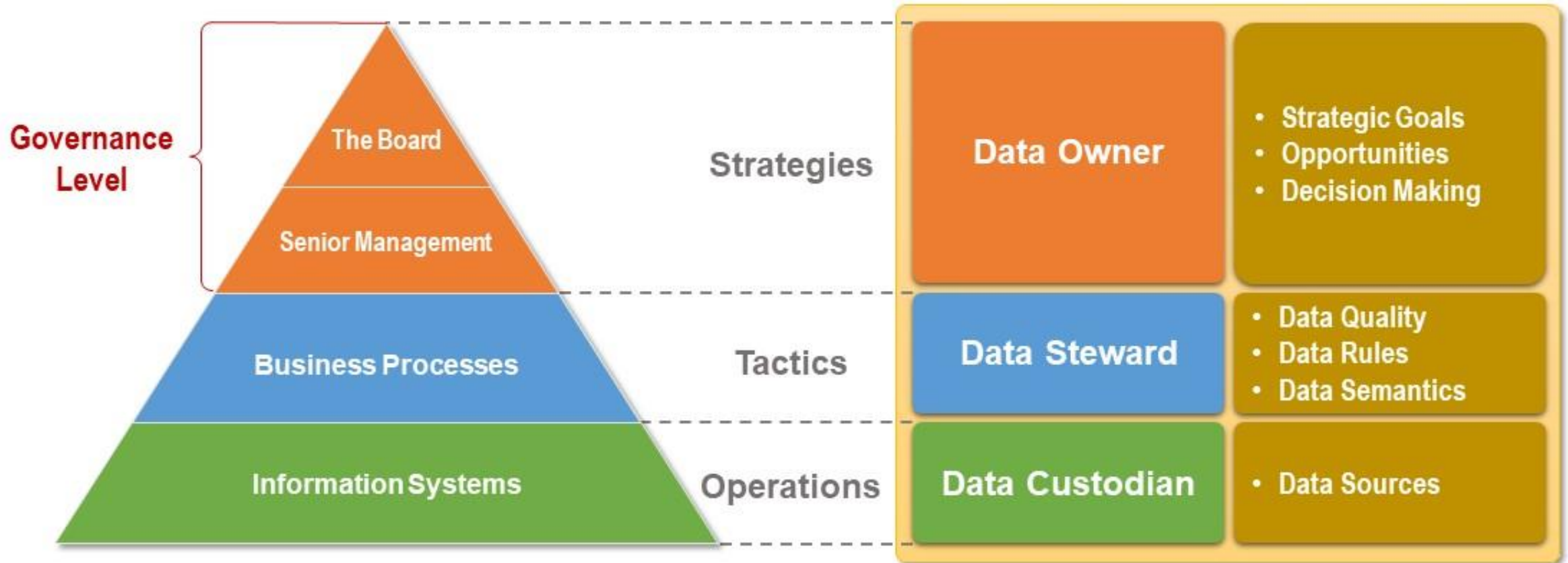
- ✓ A Data Steward is a subject expert with a thorough understanding of a particular data set.
- ✓ The Data Steward is responsible for ensuring the classification, protection, use, and quality of that data, in line with the Data Governance standards set by the Data Owner.
- ✓ To understand the meaning of a Data Steward, remember that “**subject expert**” does not necessarily mean they come from an IT background.
- ✓ Depending on an organization’s data and business nature, a subject expert might have experience in business, operations, IT, or a project-specific function.
- ✓ Typically, the Data Owner appoints a Data Steward. Depending on the scale of an organization and its data, one or more Data Stewards may be appointed to assist the Data Owner in implementing the organization’s Data Governance policies.



A Data Custodian is responsible for implementing and maintaining security controls for a given data set in order to meet the requirements specified by the Data Owner in the Data Governance Framework.



Enterprise Data Management





Aspect	Data Owner	Data Steward	Data Custodian
Primary Responsibility	Ultimate accountability for data.	Manage and ensure data quality, accuracy, and integrity.	Implement and maintain the technical aspects of data management.
Decision Authority	Has the final say on data access, use, and security policies.	Implements policies set by data owners.	Executes and enforces policies set by data owners and stewards.
Data Governance	Establishes high-level data governance policies.	Implements data governance policies and procedures.	Enforces technical aspects of data governance.
Accountability	Accountable for the overall well-being of the data.	Accountable for the quality and proper use of specific data sets.	Accountable for the technical infrastructure supporting data.
Business Focus	Focuses on business needs and strategy.	Balances business needs with data quality and compliance.	Primarily concerned with technical aspects of data storage and access.
Involvement in Data Lifecycle	Involved in the entire data lifecycle.	Involved in specific stages of the data lifecycle.	Mainly involved in the storage and retrieval stages of the data lifecycle.
Examples	Executive leadership, business unit managers.	Data analysts, subject matter experts.	Database administrators, IT specialists.