Functional Programmi

Project Title Scala Proj

Group Name: Group11

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About the Project

- **Your Speci c Contribution:**
  - Get data from Neo4j, Print the output of the
    impactScores for each year) (years: 2024, 2023
- **Methodology or Approach:**
  - Set Up Spark Neo4j: Install the Spark-Neo4j
    Neo4j details (URL, username, password).
  - Sample Data in JSONL: Create a JSONL le
    scores.
  - Push Data:
    - Read JSONL with spark.read.json).
    - Create CVE, Description, and ImpactScore
    - Insert into Neo4j using the Neo4j-Spark con
  - De ne Relationships: Create relationships (HA
    CVE and ImpactScore.
  - Query: Use Cypher to query the nodes and re

Challenges and Learning

- **Challenges Faced and Their Resolutions:**
  - Handling large datasets efficiently.
  - Ensuring correct relationship creation betwee
  - Optimized Spark con gurations for better per
  - Used proper Cypher queries for de ning relati
- **Learning Gained:**
  - Gained experience in integrating Spark with N
  - Learned how to manage data flow and relatio
- **Future Improvements:**
  - Could improve data processing speed by tweal
  - Implement more complex relationships and da