MTU
Ollscoil Teicneolaíochta na Mumhan
Munster Technological University

titanic_neo4j

Student Name: Laiba Asif

Student ID: R00201303

Module: NoSQL Data Architectures

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1) Importing the Data:

```
LOAD CSV WITH HEADERS FROM 'file:///titanic.csv' AS row
CREATE (passenger:Passenger {
  survival: toInteger(row.survival),
  pclass: toInteger(row.pclass),
  sex: row.sex,
  age: toFloat(row.age),
  sibsp: toInteger(row.sibsp),
  parch: toInteger(row.parch),
  ticket: row.ticket,
  fare: toFloat(row.fare),
  cabin: row.cabin,
  embarked: row.embarked
})
```

2) Database Design:

```
CREATE INDEX ON :Passenger(name)
```

3) Query Execution:

1) List alphabetically the names of all female passengers that survived:

```
MATCH (p:Passenger)
WHERE p.sex = 'female' AND p.survival = 1
RETURN p.name
ORDER BY p.name ASC
```

2) Output by class, the names of children who survived:

```
MATCH (p:Passenger)
```

```
WHERE p.age < 18 AND p.survival = 1
RETURN p.pclass, p.name
ORDER BY p.pclass ASC
```

3) Output by class, the names of children who did not survive:

```
MATCH (p:Passenger)
WHERE p.age < 18 AND p.survival = 0
RETURN p.pclass, p.name
ORDER BY p.pclass ASC
```

4)Count of children in each class that survived:

```
MATCH (p:Passenger)
WHERE p.age < 18 AND p.survival = 1
RETURN p.pclass, count(p) AS count
ORDER BY p.pclass ASC
```

5)Count of children in each class who did not survive:

```
MATCH (p:Passenger)
WHERE p.age < 18 AND p.survival = 0
RETURN p.pclass, count(p) AS count
ORDER BY p.pclass ASC
```