**Studio 3T tool**

Studio 3T is a powerful and user-friendly integrated development environment (IDE) for MongoDB. It is designed to simplify and enhance the experience of working with MongoDB databases. Here's an introduction to the key features and functionalities of Studio 3T:

* MongoDB GUI:

Studio 3T provides a graphical user interface (GUI) for interacting with MongoDB databases, making it easier for developers and database administrators to manage MongoDB data.

* Query Builder:

The tool includes a visual Query Builder that allows users to construct MongoDB queries using a point-and-click interface. This can be helpful for those who are not comfortable with writing raw MongoDB queries.

* Aggregation Editor:

Studio 3T features an Aggregation Editor that simplifies the construction of MongoDB aggregation pipelines. Users can visually design and test aggregation stages.

* Import and Export Tools:

Studio 3T facilitates data import and export operations. Users can import data from various formats (e.g., JSON, CSV) into MongoDB collections and export data from MongoDB collections to different file formats.

* Data Visualization:

The tool provides various data visualization features, including tree and table views, which make it easy to explore and understand the structure of MongoDB documents.

* Schema Explorer:

Studio 3T includes a Schema Explorer that allows users to explore the structure of their MongoDB databases, collections, and documents. It provides a quick overview of the data model.

* Task Automation:

Automation features enable users to schedule tasks such as data backups, imports, and exports. This helps streamline repetitive database management tasks.

* Query Code Generation:

Studio 3T can automatically generate code snippets in various programming languages (e.g., JavaScript, Java, Python) based on the MongoDB queries and operations performed in the GUI. This can be useful for developers integrating MongoDB into their applications.

* Index Management:

The tool provides functionality for managing MongoDB indexes, including the creation, modification, and removal of indexes to optimize query performance.

* Connection Management:

Users can easily manage connections to multiple MongoDB instances, both locally and remotely. Studio 3T supports connecting to standalone servers, replica sets, and sharded clusters.

Here are general steps for migrating databases from PostgreSQL to MongoDB

**Source Database (PostgreSQL) Connection:**

* Open Studio 3T
* Launch Studio 3T on your machine.
* Select Source Database:

In Studio 3T, choose the option to connect to a relational database as the source. Select PostgreSQL as the source database.

* Configure Source Connection
* Provide the following details for the PostgreSQL source database:

URL of the Driver: [PostgreSQL JDBC Driver URL]

Port Number: [PostgreSQL Port Number]

Database Name: [Source Database Name]

Click on the "Connect" button to establish a connection to the PostgreSQL source database.

**Target Database (MongoDB) Connection:**

* Select Target Database:

In Studio 3T, choose the option to connect to a MongoDB database as the target.

* Configure Target Connection
* Provide the following details for the MongoDB target database:

URL of the Driver: [MongoDB Driver URL]

Port Number: [MongoDB Port Number]

Database Name: [Target Database Name]

Click on the "Connect" button to establish a connection to the MongoDB target database.

**Migration Execution:**

* Run Migration:

With both the source (PostgreSQL) and target (MongoDB) databases connected, click on the "Run" button to start the migration process.

**Post-Migration Enhancements**

* Review in MongoDB Compass:
* Open MongoDB Compass to review the migrated data in the MongoDB target database.
* Enhance Results:

Utilize various options in Studio 3T to enhance the migration results:

1. Skip Duplicate IDs: Configure options to skip duplicate IDs during the migration.
2. Override Records with Same ID: Choose to override records in the target MongoDB database if they have the same ID.

