how configure pgsql for arabic text

To configure PostgreSQL for handling Arabic text, follow these steps:

Database Setup

1. **Create a Database with UTF-8 Encoding**: Ensure that your PostgreSQL database is created with UTF-8 encoding, which supports Arabic characters.

```
CREATE DATABASE your_database_name WITH ENCODING 'UTF8';
```

2. **Set Client Encoding**: When connecting to the database, set the client encoding to UTF-8. This can be done by executing the following command in your SQL session:

```
SET client_encoding TO 'UTF8';
```

Alternatively, you can set the environment variable `PGCLIENTENCODING` before starting your PostgreSQL session:

```
export PGCLIENTENCODING=UTF8
```

Inserting Arabic Text

3. **Use Proper Text Encoding**: When inserting Arabic text, ensure that your SQL scripts are saved in UTF-8 format without BOM (Byte Order Mark). Tools like Notepad++ allow you to save files in this format.

4. **Insert Data**: You can insert Arabic text directly into your tables using standard SQL commands. For example:

```
INSERT INTO your_table (your_column) VALUES ('مرحبا');
```

Handling Special Cases

5. **Using Extensions for Better Support**: If you need advanced features like full-text search or normalization, consider using extensions such as `unaccent` or `PostArabic`. The `unaccent` extension can help with normalizing Arabic text for search purposes.

6. **Arabic Shaping**: If you require Arabic shaping (which adjusts the appearance of characters based on their position in words), you may look into the PostArabic extension, though its use has diminished with improvements in other systems.

Troubleshooting Common Issues

- If you encounter gibberish characters when inserting Arabic text, ensure that both your database and client encoding are set to UTF-8.

- Check that your SQL scripts are correctly encoded and that your terminal or script execution environment supports UTF-8.

By following these steps, you should be able to effectively configure PostgreSQL to handle Arabic text without issues.

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