PostgreSQL Logical Replication: Publisher vs Subscriber Responsibilities

1️ Tasks to Run ONLY on PUBLISHER

What	Why
Triggers	Only publisher executes triggers. Subscriber only copies data changes.
Functions / Procedures	Business logic stays on publisher. Subscriber doesn't run them.
Sequences (auto increment ids)	Keep sequences on publisher to avoid duplication. Subscriber uses copied data only.
DML (Insert / Update / Delete)	Application writes happen only on publisher. Subscriber just receives changes.
Roles / Privileges for application users	Application connects to publisher. Subscriber is not used for writes.

2️ Tasks to Run ONLY on SUBSCRIBER

What	Why
Create Subscription	Subscription connects subscriber to publisher and receives data.
Set Roles / Privileges for Monitoring (Optional)	If monitoring tools access subscriber, grant read permissions.
Read Queries for Reporting (Optional)	Can run reports or BI tools on subscriber safely.

3️ Tasks You MUST Run on BOTH (Publisher and Subscriber)

What	Why
Create Tables	Logical replication does not replicate schema. Same tables needed on both.
Primary Keys	Required on both for replication to work.
Indexes	Improves performance on subscriber for queries.

Extensions (uuid-ossp, pgcrypto, etc.)	Same extensions needed to avoid errors.
Views / Materialized Views	Not replicated. Must create manually.
Users / Roles (optional)	If monitoring tools or reporting users need access to both.

4️⃣ Tasks You DO NOT Run on Subscriber

What	Why
Application DML (Insert / Update / Delete)	Writes happen only on Publisher. Subscriber is read-only.
Triggers	Subscriber will not run triggers — by design.
Functions called by app	Application connects to Publisher for logic, not Subscriber.
Sequence Updates	Subscriber receives data; sequence not needed here.

Summary Table

Activity	Publisher	Subscriber
Data Changes (Insert/Update/Delete)	Yes	No (receives only)
Triggers	Yes	No
Functions	Yes	No
Sequences	Yes	No
Create Tables	Yes	Yes
Primary Keys	Yes	Yes
Indexes	Yes	Optional
Extensions	Yes	Yes
Views / Materialized Views	Yes	Yes
Users / Roles	Yes	Optional
Create Subscription	No	Yes