1. Prerequisites

- **Azure Functions Core Tools** (CLI):

  ```
  npm install -g azure-functions-core-tools@4 --unsafe-perm true
  ```

- **Node.js** (v18 LTS recommended).
- **Storage Emulator** (choose one):
  - **Azurite** (cross-platform, recommended):

    ```
    npm install -g azurite
    ```

    Run with: `azurite --silent --location ./azurite --debug ./azurite/debug.log`
- **Cosmos DB Emulator** (Windows only) or connect to a real Cosmos DB account.

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2. Unpack & Init

```
unzip azure-func-demo.zip
cd azure-func-demo
npm install
```

Confirm structure:

```
tree -L 2
```

Should show `HttpStarter`, `QueueWorker`, `BlobProcessor`, `CosmosWatcher`.

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3. Start Azurite (local storage)

Run in a separate terminal:

```
azurite --silent --location ./azurite --debug ./azurite/debug.log
```

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4. Start Functions Host

From project root:

```
func start
```

The CLI will print routes — expect something like:

```
HttpStarter: [POST] http://localhost:7071/api/HttpStarter
```

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5. Send Test Payload

Open another terminal and POST JSON:

```
curl -X POST http://localhost:7071/api/HttpStarter \
  -H "Content-Type: application/json" \
  -d '{"task":"analyze-report","priority":"high"}'
```

Expected response:

```
{ "message": "Task queued", "task": { "task": "analyze-report", "priority":
"high" } }
```

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6. Observe the Pipeline

1. **HttpStarter** puts JSON onto the queue.
2. **QueueWorker** consumes the queue → writes a blob (`processed/*.json`).
   Check in Azurite blob explorer or logs.
3. **BlobProcessor** reacts to new blob → inserts into Cosmos DB (`MyDB/Items`).
4. **CosmosWatcher** logs new docs as soon as they're written.

Logs in your `func start` terminal will show each step firing.

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7. Cosmos DB Emulator Setup (if local)

- Download: Cosmos Emulator.
- Connection string (paste into `local.settings.json`):

  ```
  "CosmosDBConnection":
  "AccountEndpoint=https://localhost:8081/;AccountKey=C2y6yDjf5...==;"
  ```

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8. Clean Up

Stop functions with `Ctrl+C`.
Storage data is persisted in the `./azurite` folder.