# **Process Definition Document (PDD)**

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| Date | 21st Aug 2025 |
| Project | **GST Reconciliation (Zoho Books ↔ GSTR‑2B)** |
| Prepared By | Harpinder Singh |
| Stakeholders | Harpinder Singh, Mr. Neeraj Agg, Mr. Pawan Negi & Ms. Vandana Seth |

## **1. Purpose & Outcome**

Deliver a zero‑install, browser‑based app (PWA) that reconciles **Zoho Books** purchases with **GSTR‑2B**, and outputs a single Excel file containing standardized summaries. Target outcome: **sub‑second** processing, consistent reporting, and fewer manual errors.

## **2. Scope & Assumptions**

**In Scope** - Upload of a monthly Excel with **two sheets**: *GSTR‑2B* and *Zoho Data*. - Reconciliation logic with configurable **tolerance** (default **₹10**). - Generation of six output sheets in a single workbook. - PWA install support on Chrome/Edge/iOS.

**Out of Scope** - Direct API fetch from GST portal / Zoho Books. - Workflow approvals, email automation, data archival.

**Assumptions** - Column headers are consistent with the provided template.

## **3. Inputs & Required Format**

**File**: Excel (.xlsx) with sheets **“GSTR‑2B”** and **“Zoho Data”**.  
**Required columns** (both sheets): - *GSTIN of Supplier*, *Trade Name*, *Invoice Date*, *Invoice Number*, - *Invoice Value*, *Integrated Tax (IGST)*, *Central Tax (CGST)*, *State Tax (SGST)*, *Taxable Value*.

*The template* ***Input\_Format.xlsx*** *is attached with the rollout email.*

## **4. Process Flow**

**4.1 AS‑IS**

1. Download **GSTR‑2B** for the target period from the GST portal (Excel/CSV).
2. Export **Purchase Book** from **Zoho Books** for the same period.
3. Open a master workbook and **standardize headers/formats** (GSTIN, Trade Name, Invoice Date, Invoice Number, values). Normalize invoice numbers (trim/uppercase, remove spaces/dashes, unify slashes, drop leading zeroes).
4. Use Excel formulas (e.g., **VLOOKUP/INDEX‑MATCH**) on **(GSTIN, Invoice Number)** to compare **Invoice Value**, **IGST/CGST/SGST**, and **Taxable Value**.
5. Create manual summaries: **Zoho Book Vs GSTR**, **GSTR Vs Zoho Book**, **Sum totals**, **Bills‑wise**, **GSTIN‑wise**, **Trade Name‑wise** (pivots/totals).
6. Review exceptions (missing in Book/2B, minor value differences), apply an informal **tolerance** threshold, and annotate.
   1. **TO‑BE**
7. User opens the app → sets **Tolerance (₹)** if needed.
8. Uploads the source Excel.
9. App validates sheets/headers and **normalizes keys** (GSTIN → uppercase; Invoice No. → uppercase, strip spaces/dashes, unify slashes, drop leading zeroes).
10. Groups by **(GSTIN, Invoice Number)** and sums numeric fields.

5. Compares Zoho vs 2B, computes differences, applies tolerance. Auto‑downloads reconciliation\_output.xlsx with all summaries.

## **5. Matching Rules & Tolerance**

* **Primary key**: *(GSTIN, Invoice Number)* after normalization.
* **Differences**: values within **±₹Tolerance** are treated as **0** (considered matched).
* **Status tags**: *Match*, *Missing in Book*, *Missing in 2B*, *Mismatch: Invoice/Tax/Taxable*.

## **6. Outputs (Single Excel)**

1. **Zoho Book Vs GSTR** – invoice‑level differences (Zoho → 2B).
2. **GSTR Vs Zoho Book** – invoice‑level differences (2B → Zoho).
3. **Sum Function** – totals and net difference.
4. **Bills Wise Summary** – consolidated per bill (with status).
5. **GSTIN Wise Summary** – supplier‑wise totals and differences.
6. **Trade Name Wise Summary** – trade‑name roll‑up of differences.

## **7. Non‑Functional & Security**

* **Performance**: typical runs complete in **milliseconds**.
* **Privacy**: processing happens **entirely in the browser**; files are not uploaded to servers.
* **Availability**: static app on Vercel; no server state.
* **Installability**: PWA support (Add to Home Screen / Install App).
* **Auditability**: tolerance value visible in UI; deterministic outputs.

## **8. Roles & RACI**

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| Role | Responsibility | R | A | C | I |
| Accounts Users | Uploads file; reviews output | R |  |  |  |
| Mr. Neeraj Aggarwal | Acceptance, tolerance policy |  | A | C | I |
| Harpinder Singh (RV) | Build, maintenance, fixes, domain/SSL, deploys | R |  | C | I |

R: Responsible, A: Accountable, C: Consulted, I: Informed

## **9. Deployment & Access**

* **URL**: https://recorv.vercel.app
* **Environments**: Dev → UAT → Prod (single URL after sign‑off).
* **Install (PWA)**: Chrome/Edge → *Install app*; iOS Safari → *Add to Home Screen*.
* **Artifacts**: source in Drive; Vercel build logs retained.

## **10. Risks & Mitigation**

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| Risk | Impact | Mitigation |
| Header mismatch / changed export | Processing fails | Provide template, validate headers, quick parser updates |
| Extremely large files | Slow processing | Recommend monthly splits; staged upload guidance |
| User confusion on tolerance | Recon disputes | Default ₹10, inline help text, training note |

## **11. Acceptance Criteria**

* The app accepts the template file and produces all **six** sheets.
* Differences within **±₹10** evaluate to **0** across all sheets.
* Total figures in **Sum Function** align with source totals.
* Performance: output generated in **≤ 2 seconds** for typical monthly files.
* PWA install prompt available; app loads offline with basic shell.

## **12. Change Control & Support**

* **Contact**: Harpinder Singh (RV Solutions) – [*Harpinder.singh@rvsolutions.in*](mailto:Harpinder.singh@rvsolutions.in)

## **13. Sign‑off**

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| --- | --- | --- | --- |
| Name | Role | Signature | Date |
| Harpinder Singh | Owner / Developer |  | 21‑Aug‑2025 |
| Mr. Pawan Negi | Process Owner |  | 22-Aug-2025 |
| Mr. Neeraj Aggarwal | Approver |  | 22-Aug-2025 |