

Requirements Analysis & PRD

From raw data to clear requirements,
then distilled into a measurable product
document.



ADSI 2026

02 POSITION IN THE DEVELOPMENT FLOW

Where Analysis & PRD Sit



All these stages still belong to **SRS / SKPL** (requirements). Technical design only starts at **SDD / DPPL**.

03 CONCEPT What Is the Analysis Stage?

Analysis is the bridge that turns raw data from gathering into requirements that are clear, valid, and ready to document.

Without this stage, a requirements document is just a pile of wishes that may not truly be needed.

Raw data cannot become a PRD directly — it must be processed first.



04 CONCEPT What Happens During Analysis



Filter & Group

Organize overlapping data into requirement themes.



Validate

Confirm needs are real, not passing wishes; resolve conflicts.



Separate F / NF

Distinguish what the system does vs. its quality & constraints.



Prioritize

Rank requirements by importance, e.g. with MoSCoW.



Identify Actors

Determine who interacts with the system.



Set the Scope

Draw the line: what is in and what is outside the system.

05

CONCEPT + EXAMPLE

Functional vs Non-Functional Requirements



Functional

WHAT the system does

- The system can record sales transactions.
- The system can print monthly sales reports.
- The system can search products by name.
- The system can manage stock data.



Non-Functional

QUALITY & constraints

- The system responds to searches in < 3 seconds.
- User data is stored encrypted.
- The interface is easy for non-technical users.
- The system is 99% available during operating hours.

06

PRIORITIZATION TECHNIQUE

Prioritizing with MoSCoW

Not all requirements are equally important. MoSCoW helps define the product scope.



Must have

Mandatory. The product fails without it.

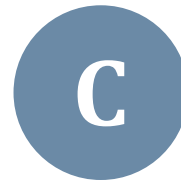
e.g. record transactions.



Should have

Important, but can wait a little.

e.g. automated reports.



Could have

Nice to have if time allows.

e.g. display themes.



Won't have

Agreed to skip for now.

e.g. mobile app.

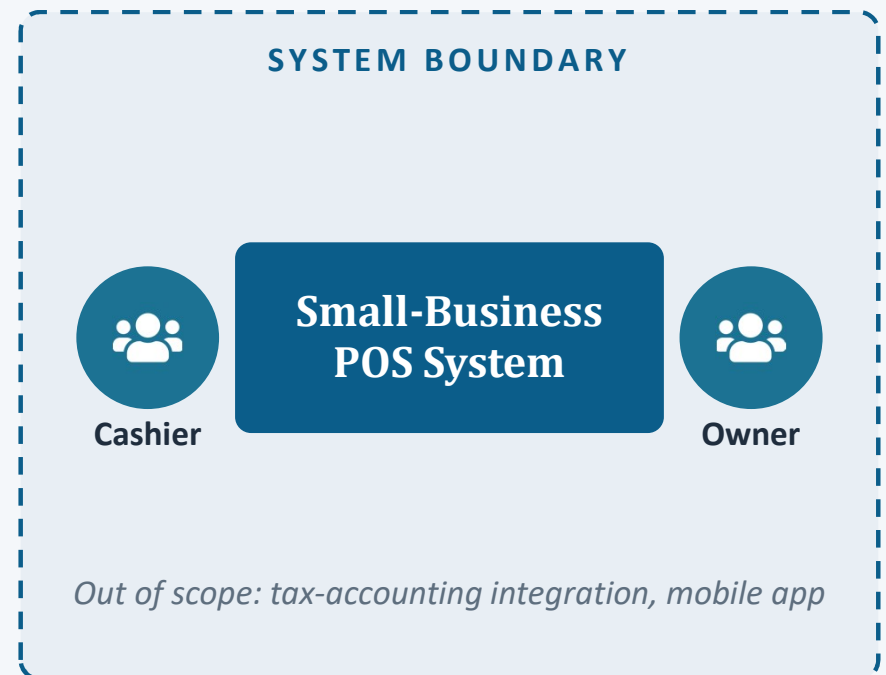
07 CONCEPT Actors & System Scope

Actors

Parties that interact with the system — people, roles, or other systems.

Scope

A firm boundary between what the system is responsible for and what lies outside it.



PRD



Product Requirements Document

A document that distills analysis results into a structured form, answering: “what product will be built and why.”

Product & business oriented

Narrative and readable

Feeds into later modeling

09 7 Core Components of a PRD

1



Vision / Goal

2



User Persona

3



User Story

4



Features

5



F / NF Requirements

6



Scope

7



Success Metrics

The next slides cover each component with examples.

10

COMPONENTS 1 & 2 + EXAMPLE

Product Vision & User Persona



Product Vision / Goal

States why the product exists and which problem it solves.

EXAMPLE

“Provide a digital POS system so small businesses can record transactions and stock automatically, quickly, and with fewer errors.”



User Persona

A semi-fictional profile representing a user type: who they are, their role, and their problem.

EXAMPLE

Sari, 35 — grocery-shop owner. Not tech-savvy. Needs a simple system that is quick to learn and not complicated.

11

COMPONENT 3 + EXAMPLE

User Story

FORMAT As a **[role]**, I want to **[action]**, so that **[benefit]**.



As a **cashier**, I want to **search products by name**, so that **transactions go faster**.



As a **shop owner**, I want to **view daily sales reports**, so that **I know how the business is doing each day**.



As a **cashier**, I want to **get an alert when stock runs low**, so that **items don't run out unnoticed**.

Features & Numbered Requirements



Features (by module)

- Transaction module: input, cart, print receipt
- Product module: add, edit, search items
- Stock module: monitoring & low-stock alerts
- Report module: daily & monthly sales



Numbered Requirements

Coded so they stay traceable all the way to design.

FR-01

The system can record transactions.

FR-02

The system can search products.

NFR-01

Search response < 3 seconds.

NFR-02

Transaction data is encrypted.

13

COMPONENTS 6 & 7 + EXAMPLE

Scope & Success Metrics



In Scope

- Transaction recording
- Product & stock management
- Sales reports



Out of Scope

- Online tax integration
- Mobile app
- Multi-branch



Success Metrics

40%

transaction time

90%

users finish
unaided

0

stock discrepancy
at month-end

From Finding to PRD: Small-Business POS



GATHERING FINDING

“I often miscount change and forget when items run out of stock.”



ANALYSIS RESULT

Needs: automatic transaction recording (Must) + stock alerts (Should).



INTO THE PRD

User story + transaction & stock features, with metric: stock discrepancy = 0.

In short: one user complaint is traced into a requirement, then framed cleanly in the PRD — complete with a way to measure success.

SUMMARY

Key Takeaways



Analysis turns raw data into requirements that are clear, valid, and prioritized.



The PRD distills those needs: vision, persona, user story, features, F/NF, scope, and metrics.



Analysis ↔ PRD is iterative — it is normal to loop back and refine.



Both belong to the SRS / SKPL (the “what”), not yet the SDD / DPPL (the “how”).

Up next: process & data modeling with DFD (Power Designer).