# SpecForge: Primer Cards

Five minutes of background before you build. Cynergy Coding Club, RUAS Peenya. All examples are fictional.

### 1. Course specification

The official document for one course. It holds: title, code, credits, a summary, the Course Outcomes, the unit-wise syllabus, teaching hours, the assessment plan, the CO-PO-PSO map and resources. Many people edit it over the years, so it drifts and mistakes creep in. **Your app's job: read the messy one and produce a corrected one.**

### 2. Credits: L:T:P

Lecture : Tutorial : Practical hours. **3:0:1** means 3 lecture, 0 tutorial, 1 practical. A non-zero Practical means the course has a lab, so it uses the Integrated template. Otherwise it uses the Non-Lab template.

### 3. Question-paper blueprint

A second document that lists the Course Outcomes and the units for the same course. When you have both, the blueprint decides the COs and the syllabus. Everything else comes from the existing spec.

### 4. Course Outcome (CO)

What a student can do at the end of the course, written as a verb plus content. Example: *"Explain how a stack stores data."* A course has a handful, numbered CO-1, CO-2 and so on.

### 5. Bloom's level

How deep a CO goes, taken from its first verb.

| Level | Name | Typical verbs |
|---|---|---|
| 1 | Remember | define, list, recall, state |
| 2 | Understand | explain, describe, summarise, classify |
| 3 | Apply | apply, solve, use, implement |
| 4 | Analyse | analyse, compare, differentiate, select |
| 5 | Evaluate | evaluate, assess, justify, critique |
| 6 | Create | design, develop, build, construct |

### 6. PO and PSO

**PO (Programme Outcome):** broad abilities the whole degree builds. There are 11, numbered PO-1 to PO-11 (for example PO-3 is about design, PO-5 about using tools).
**PSO (Programme Specific Outcome):** abilities specific to this programme. Here there are two, PSO-1 and PSO-2. The exact wording of each is in Annexure A, which is in your kit.

## 7. The CO-PO-PSO map

A table that says how strongly each CO supports each PO and PSO. Rows are COs, columns are POs and PSOs.

| Value | Meaning |
|---|---|
| 3 | very strong |
| 2 | strong |
| 1 | moderate |
| blank | no link |

Fictional example (only 4 columns shown):

| CO | Bloom | PO-1 | PO-3 | PO-5 | PSO-1 |
|---|---|---|---|---|---|
| CO-1 Explain data structures | 2 | 3 | | | 1 |
| CO-2 Implement a sorting routine | 3 | 2 | 2 | 3 | 2 |
| CO-3 Design a small app | 6 | 1 | 3 | 3 | 3 |

Every filled cell needs a one-line reason. A low Bloom's level (CO-1, "Explain") cannot map strongly to design (PO-3). Tool use (PO-5) needs a real lab or programming activity.

## 8. Defects

Mistakes inside the messy spec, for example hours that do not add up, a CO in one table but missing from another, or text left over from a different course. Finding them is a bonus level (L4).

## 9. What your app does, in five steps

1. Read the spec (and blueprint). 2. Pick the template. 3. Fill it with the right COs and units. 4. Build the CO-PO-PSO map with reasons. 5. Export the output file and submit it for a score.