# Future Enhancements – Step 2D: Plan Benefit Schedules

## 🔐 Security & Compliance

* Audit Log per Schedule – Track all create/update/delete actions with 'changed\_by', 'timestamp', and 'diff'.
* Regulatory Flags – Add fields like 'is\_compliant', 'regulatory\_code', 'coverage\_reference' for legal mapping.
* Versioning – Add 'version\_number', 'is\_latest', 'linked\_to\_version\_id' to track benefit schedule revisions.

## 🌍 Multilingual / Localization

* Extended Translations – Support 'name\_fr', 'description\_fr', and dynamic fallback logic.
* Language Switch Endpoint – Allow benefit retrieval in selected language ('?lang=ar' or 'Accept-Language' header).

## 💡 Smart UX / AI Enhancements

* AI Auto-Suggested Benefit Rules – GPT-based helper to auto-fill deductible, copay, etc. based on benefit type.
* Condition Builder UI – Drag-drop or visual editor for building complex AND/OR conditions (from 'benefit\_conditions').

## 🚦 Business Logic

* Benefit Scheduling Wizard – Step-by-step UI for admins to add grouped benefits (e.g., Outpatient Package).
* Limit Inheritance – Inherit limits or copay from parent schedule (e.g., “X-ray” inherits from “Outpatient”).
* Network-Specific Preapproval Rules – Rules that apply only for certain network tiers or providers.

## 📊 Analytics & Reporting

* Usage Tracking – Add 'used\_amount', 'remaining\_limit', and history of benefit usage per member.
* Benefit Popularity Score – Track which benefits are most claimed/used, visible in admin dashboard.

## 🔄 Automation

* Auto-Deactivate Expired Schedules – Cron job or DB trigger to disable expired entries.
* Copy Schedule Across Plans – Clone a benefit schedule from Plan A to Plan B with all translations and rules.
* Preapproval Rule Engine – Evaluate preapproval requirements dynamically with conditions engine.

## 🧱 DB-Level Enhancements

* Unique Constraint for Translations – Prevent duplicate (schedule\_id, language\_code) combinations.
* Indexing – Add indexes on 'plan\_id', 'schedule\_id', 'language\_code', 'group\_id', 'condition\_type'.
* JSON Schema Validation – Validate the 'criteria' and 'value' fields in JSONB columns against pre-defined schemas.

## 🔧 Developer & Testing

* Seed Generator for Benefit Templates – Generate default templates for benefits like “Maternity,” “Dental,” etc.
* Bulk Import via Excel – Upload bulk benefit schedules via XLSX template with rules, limits, translations.