# Step 3B – Demographics Module: Future Enhancements

## 📊 Advanced Demographic Segmentation

* • Link age brackets to customer personas for AI-powered recommendations
* • Allow regional variations in age brackets and premiums (geo-sensitive tiers)
* • Add dynamic brackets: e.g. '18–<retirement\_age>' for flexible pension plans

## 📈 Risk Factor Enhancements

* • Add smoking status, chronic condition flags to age\_brackets or risk profiles
* • Link occupation risk level directly to underwriting and pricing engine
* • Historical changes: log versioned changes in risk profile or age brackets

## 🔄 Sync & Integration

* • Sync actuarial tables with external government or reinsurer databases
* • Automated updates to age\_brackets on policy rule changes
* • Expose age bracket APIs to brokers for real-time quotation engines

## 🧠 AI & Predictive Modeling

* • Train model to predict risk level based on demographics and history
* • Auto-suggest pricing modifiers based on occupation category trends
* • Feed demographic data into fraud detection and underwriting AI modules

## 📅 Validity Logic

* • Add optional `expiration\_notice\_days` to premium\_age\_brackets
* • Auto-archive outdated age brackets or premiums when expired
* • Support multiple effective periods for future seasonal pricing

## 🌐 Multilingual Support

* • Add `name\_ar`, `description\_ar` to occupation\_categories
* • Enable multilingual titles for demographic labels (UI/UX readiness)