

Personalized Learning & Skill-Gap Analysis

Problem Statement

Large enterprises struggle to deliver training that truly matches each employee's existing skills and evolving gaps. Traditional LMS platforms offer “one-size-fits-all” curricula or simple role-based tracks, leading to:

- Low engagement: Employees see irrelevant content.
- Inefficient spending: Budgets go to courses that aren't needed.
- Stagnant skill growth: Hidden gaps remain unaddressed.

In Hexaware learning is based on the TSR role of the consultant. This solution evaluate the consultant current profile/skill against the TSR skill and find the Gaps of learning, guide the consultant for learning.

Expected Solution Overview

We'll leverage any opensource AI based multi-agent framework to decompose the workflow into specialized, cooperating agents, and expose control and status via a rich Web UI. Example on the Agents are given below.

Agent	Role & Inputs	Outputs	Reasoning
Profile Agent	HR/ERP data, past course completions, performance ratings	Employee skill vectors & history logs	Infer latent skill vectors by correlating disparate data (e.g. past courses, KPI scores).
Assessment Agent	Triggers quizzes/exercises; collects answers and timing	Proficiency scores across competencies	Dynamically select difficulty levels based on real-time quiz performance (e.g. “If they ace questions on Topic A, ramp up Topic B”).
Recommender Agent	Profiles + assessment scores + content metadata	Ranked learning path	Craft narrative explanations (“Why this module matters for your Java concurrency gap”) and write personalized learning-path descriptions.
Tracker Agent	LMS API events (course started/completed), quiz re-scores		Analyze completion patterns and quiz re-scores to detect if a user is plateauing, then trigger a mini-assessment or refresher.

We can use any database and synthetic data to simulate the solutions.

Web UI Design

This solution must provide both learners and administrators webUI pages with live visibility.

- Current Learning Path for Learners (Title, estimated time, completion status (Not Started / In Progress / Done))
- Real-Time Workflow Progress Bar with below action items for Learners
 - a. Profile Loaded,
 - b. Assessment Pending,
 - c. Assessment Completed,
 - d. Recommendations Generated,
 - e. Learning In Progress
- Admin Console includes
 - 1. User Search & Filters (by skill gap, department).
 - 2. view agentic framework-managed queues, latencies, error rates.
 - 3. Report Generation about learning by individual or department