**DXTBidMasters Business Requirement Document**

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# HackAIthon Topic#4 Detail

Develop an AI-powered personal learning agent that intelligently generates highly customized upskilling pathways. This agent will take an individual's current skills, desired future proficiencies, and learning constraints as input, then curate a structured, actionable learning roadmap utilizing publicly available content and datasets to accelerate career growth.

# Context

In today's rapidly evolving technological landscape, particularly with the advent of AI, continuous upskilling is paramount for professionals at FSOFT. Employees frequently find themselves needing to acquire new skills or deepen existing ones to meet project demands and advance their careers. However, navigating the overwhelming abundance of online learning resources, identifying the most relevant content, and structuring an effective, personalized study plan is a significant challenge. Generic training programs often fall short, failing to account for individual learning styles, prior knowledge, or specific career trajectories, leading to inefficient learning and skill gaps.

# Problem Statement

As an FSOFT employee eager to grow, I often feel overwhelmed by the sheer volume of learning resources available (Coursera, Udemy, YouTube, blogs, etc.) and struggle to create a coherent, effective learning plan.

I know my current skills (e.g., "Java - Intermediate," "Git - Beginner") and my desired skills (e.g., "Python - Advanced," "DevOps - Intermediate"), but I don't know the most efficient path to bridge the gap.

It's time-consuming to find high-quality, relevant resources and then organize them into a manageable study schedule within my preferred timeframe (e.g., "3 months" or "10 hours/week").

I need a tool that acts as a personalized career advisor, digesting my goals and existing knowledge to generate a step-by-step learning roadmap, complete with specific resource recommendations. Ideally, this tool should also adapt as I progress and provide a clear way to track my journey.

* Users’ pain points:
  + Too many learning resources, no structure
  + Difficult to plan personalized study routes efficiently
  + Time and effort wasted in trial and error learning strategy

# Team’s Vision & Success Criteria

* Goal: An AI agent that generates personalized, structured learning roadmaps
* Inputs: Current & target skills, time constraints
* Outputs: Timeline/roadmap, modules with links, downloadable formats, progress tracking
* Live demo expectations:
  + Instant plan generation
  + Visual roadmap (Gantt or mind map)
  + AI-adaptive path updates
  + Monitoring dashboard
  + Export feature
* AI should support almost every stages of the Project
* Should utilize RAG (Retrieval-Augmented Generation) to be more dynamic and up-to-date

# Tech Stack

* Frontend: ReactJS
* Backend: Micro-service (Java, Python, etc.)
* AI Models: Google Gemini (expecting)
* Data Sources (learning resources): Use mockup data
* Server-less: AWS