Learner (LearnerID, first\_name, last\_name, gender, birth\_date, country, cultural\_background) Skills (LearnerID, skill) \_\_\_\_\_ Skills.LearnerID references Learner.LearnerID LearningPreference(LearnerID, preference) LearningPreference.LearnerID references Learner.LearnerID PersonalizationProfiles(LearnerID, Profile ID, Prefered-content type, emotional state, personality type) PersonalizationProfiles.LearnerID references Learner.LearnerID HealthCondition (LearnerID, ProfileID, condition) HealthCondition.LearnerID references PersonalizationProfiles.LearnerID HealthCondition.ProfileID references PersonalizationProfiles.ProfileID Course (CourseID, Title, learning\_objective, credit\_points, difficulty\_level, pre\_requisites, description) Modules (ModuleID, CourseID, Title, difficulty, contentURL) Modules.CourseID references Course.CourseID Target traits (ModuleID, CourseID, Trait) \_\_\_\_\_ Target\_traits.ModuleID references Modules.ModuleID Target traits.CourseID references Modules.CourseID ModuleContent(ModuleID, CourseID, content\_type) -----ModuleContent.ModuleID references Modules.ModuleID ModuleContent.CourseID references Modules.CourseID ContentLibrary(ID, ModuleID, CourseID, Title, description, metadata, type, content\_URL) -----ContentLibrary.ModuleID references Modules.ModuleID ContentLibrary.CourseID references Modules.CourseID Assessments(ID, ModuleID, CourseID, type, total marks, passing marks, criteria, weightage, description, title) -----Assesments.ModuleID references Modules.ModuleID Assessments.CourseID references Modules.CourseID

Interaction\_log (LogID, activity\_ID, LearnerID, Duration, Timestamp, action\_type) -----Interaction log.activity ID references Learning activities. ActivityID Interaction\_log.LearnerID references Learner.LearnerID Learning activities (ActivityID, ModuleID, CourseID, activity\_type, instruction\_details, Max\_points) Learning activities. Module ID references Modules. Module ID Learning\_activities.CourseID references Modules.CourseID Emotional feedback(FeedbackID, LearnerID, timestamp, emotional state) Emotional\_feedback.LearnerID references Learner.LearnerID Learning\_path (pathID, LearnerID, ProfileID, completion\_status, custom\_content, adaptive\_rules) Learning\_path.LearnerID references PersonalizationProfiles.LearnerID Learning path.ProfileID references PersonalizationProfiles.ProfileID Instructor (InstructorID, name, latest qualification, expertise area, email) Pathreview (InstructorID, PathID, feedback) Pathreview.InstructorID references Instructor.InstructorID Pathreview.PathID references Learning\_path.PathID Emotionalfeedback review (FeedbackID, InstructorID, feedback) \_\_\_\_\_ Emotionalfeedback\_review.FeedbackID references Emotional\_feedback.FeedbackID Emotionalfeedback review.InstructorID references Instructor.InstructorID Course\_enrollment (EnrollmentID, CourseID, LearnerID, completion\_date, enrollment\_date, status) Course enrollment.CourseID references Course.CourseID Course\_enrollment.LearnerID references Learner.LearnerID Teaches (InstructorID, CourseID) \_\_\_\_\_ Teaches.InstructorID references Instructor.InstructorID Teaches.CourseID references Course.CourseID

Leaderboard (BoardID, season)

Ranking(BoardID, LearnerID, CourseID, rank, total points) -----Ranking.BoardID references Leaderboard BoardID Ranking.LearnerID references Learner.LearnerID Ranking.CourseID references Course.CourseID Learning goal (ID, status, deadline, description) LearnersGoals(GoalID, LearnerID) -----LearnersGoals.GoalID references Learning\_goal.ID LearnersGoals.LearnerID references Learner.LearnerID Survey (ID, Title) SurveyQuestions (SurveyID, Question) SurveyQuestions.SurveyID references Survey.ID FilledSurvey(SurveyID, Question, LearnerID, Answer) -----FilledSurvey.SurveyID references SurveyQuestions.SurveyID FilledSurvey.Question references SurveyQuestions.Question FilledSurvey.LearnerID references Learner.LearnerID Notification (ID, timestamp, message, urgency level) ReceivedNotification(NotificationID, LearnerID) ReceivedNotification.NotificationID references Notification.ID ReceivedNotification.LearnerID references Learner.LearnerID Badge (BadgeID, title, description, criteria, points) SkillProgression (ID, proficiency\_level, LearnerID, skill\_name, timestamp) -----SkillProgression. LearnerID references Skills. LearnerID SkillProgression.skill\_name references Skills.skill Achievement (AchievementID, LearnerID, BadgeID, description, date\_earned, type) -----Achievement.LearnerID references Learner.LearnerID Reward (RewardID, value, description, type)

Quest ( QuestID, difficulty\_level, criteria, description, title)

Skill\_Mastery (QuestID, skill)
\_\_\_\_\_\_\_\_
Skill\_Mastery.QuestID references Quest.QuestID

Collaborative (QuestID, deadline, max\_num\_participants)
\_\_\_\_\_\_
Collaborative.QuestID references Quest.QuestID

Discussion\_forum (forumID, ModuleID, CourseID, title, last\_active, timestamp, description)
\_\_\_\_\_\_
Discussion\_forum.ModuleID references Modules.ModuleID

Discussion\_forum.CourseID references Modules.CourseID

LearnerDiscussion(ForumID, LearnerID, Post, time)
\_\_\_\_\_\_\_
LearnerDiscussion. ForumID references Discussion\_forum.forumID

LearnerDiscussion.LearnerID references Learner.LearnerID

QuestReward(RewardID, QuestID, LearnerID, Time\_earned)
\_\_\_\_\_\_\_
Questreward.RewardID references Reward.RewardID

Questreward.QuestID references Quest.QuestID Questreward.LearnerID references Learner.LearnerID