**Project Title:** Learning Path Creator

**Completion date:**

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Introduction

The application is a Learning Path Management system designed to assist users in organizing and managing their learning paths effectively. It allows users to create, modify, and track their learning progress through courses or educational resources.

Setup and Installation

1. Requirements:

• PHP environment (e.g., XAMPP, WAMP, or a web hosting service supporting PHP)

• MySQL Database

2. Installation Steps:

• Download the application codebase from the provided repository.

• Configure the database connection settings in the configuration file.

• Import the database schema provided in the database\_schema.sql file.

• Place the codebase in the root directory of your server (e.g., htdocs for XAMPP).

• Access the application via the web browser.

Application Architecture

The application follows a three-tier architecture:

• Presentation Tier: HTML, CSS, and JavaScript for the user **interface.**

• Application Tier: PHP scripts for server-side processing and business logic.

• Data Tier: MySQL Database for data storage.

User Authentication and Authorization

User authentication is handled using a PHP session mechanism. Upon successful login (with username and password), a session is created, storing the user's ID and other relevant details. Sample credentials:

• Username: user1

• Password: password1

Database Interaction

The application uses PHP Data Objects (PDO) to interact with the MySQL database. The database schema includes tables like users, courses, learning paths, etc., establishing relationships between users and their learning paths/courses.

Database Queries

• Used for Login Authentication:

SQL code

SELECT \* FROM users WHERE username =? AND password =? LIMIT 1.

• Fetching User Learning Paths:

sqlCopy code

SELECT \* FROM learning\_paths WHERE user\_id = ?;

• Course Information Retrieval:

sqlCopy code

SELECT \* FROM courses WHERE id = ?;

Server-side scripting (PHP)

PHP is utilized for server-side scripting to handle user requests, process form submissions, interact with the database, and render dynamic content. Sessions are used to maintain user login state across pages.

Error Handling and Validation

• Form Validation: Client-side and server-side validation for form inputs.

• Error Handling: Custom error messages for login failures, database connection issues, or invalid user actions.

Documentation and Code Quality

Codebase follows a modular structure with comments for better readability. Documentation includes README files with setup instructions, code documentation, and inline comments explaining complex functionalities.

Project-Specific Functionality (Innovative Feature)

• Learning Paths: Users can create, edit, and delete their learning paths, adding or removing courses/resources.

• Search Functionality: Allows users to search for courses based on titles or descriptions.

• Like/Dislike Feature: Users can express preferences for courses/resources.

Team Member Information and Contributions

Provide contact information for all group members, including names, student IDs, email addresses, URL to presentation video and URL project folder on member’s GBLearn account.

*All URLs must open in a new window.*

|  |  |
| --- | --- |
| Full Name: Gabriel Assefa Student ID:101462320  GBC email:Gabriel.assefa@georgebrown.ca | |
| Video URL | [(735) December 3, 2023(3) - YouTube](https://www.youtube.com/watch?v=UH3-CIPrHsk) |
| GBLearn URL |  |
| Tasks completed by member | Please provide a list of the tasks completed by this member. |
| Html |
| Css |
| Java |
| Creating the index.php and index1.php and login |

|  |  |
| --- | --- |
| Full Name: Aditya Suri Student ID:101410341  GBC email:aditya.suri@georgebrown.ca | |
| Video URL | [(740) my part - YouTube](https://www.youtube.com/watch?v=kEKufal3kCM) |
| GBLearn URL |  |
| Tasks completed by member | Please provide a list of the tasks completed by this member. |
| Connecting the backend with frontend |
| Helped in the sign in page |
| debugging |
| I made the connection.php, create.php, delete.php |

|  |  |
| --- | --- |
| Full Name: Imran assefa Student ID:101459884  GBC email:Imran.badery@georgebrown.ca | |
| Video URL | [(735) December 3, 2023(2) - YouTube](https://www.youtube.com/watch?v=pfgpPTw_55o) |
| GBLearn URL |  |
| Tasks completed by member | Please provide a list of the tasks completed by this member. |
| Backend (php) |
| Other than the one done by aditya and gabriel |
|  |
|  |