

HashedIn University

2021

Prepared For:

HU 20

Description:

Online learning marketplace is a web application which provides multiple courses on different domains/technologies. Learners can sign up and then enrol for the course by paying the course fee and start learning. The requirement is to build the backend for the online learning marketplace application.

Functional Requirements:

- **User Management:**

1. The application should support adding the users to the application. The basic details will include information like display name, first name, last name, about yourself/bio, areas of interest (can choose multiple interests), user type(student/professional), experience, domain expertise, role, profile picture
2. They should support updating user details like bio, areas of interest etc.
3. The application should support displaying the user profile and provide an option to update it.

- **Course Management:**

4. The application should support adding courses to the application. The basic details will include information like name, domain, description, author, price, duration, content etc.
5. The application should support listing the courses, sorting based on price, filtering based on the course name.
6. The application should support adding reviews and ratings for courses by the enrolled users.
7. Users should get the recommendation on courses based on their area of interest.

- **Cart Management:**

8. The application should support adding the courses to the cart for particular users.
9. The application should support viewing the cart items for particular users.
10. The application should support deleting the courses from the cart for particular users.
11. The application should support calculating the total cart price and on checkout it should create orders.

- **Wishlist Management:**

12. The user should be able to add the courses to the wishlist.
13. The user should be able to remove the courses from the wishlist.
14. The user should be able to purchase the course he/she wishlisted.
15. The user should be able to see all the courses he wishlisted. This can also have features like sorting, filter by category/course type.

Project Plan:

The delivery is expected to be high quality, iterative and showing progressive enhancements without waiting for a last-minute integration. There are daily checkpoints to keep up with the progress.

The milestones below show the must-have features and how they should be planned for delivery. The remaining time should be used to complete the functionality and prioritized based on the business context.

Milestones:

- To begin with everything is in-memory (Should be maintained in a list/map etc.).
- Unit test cases are **must** for each functionality you implement.

Milestones	
Milestone 1	Create An API to add user
Milestone 2	Create an API to update user's display name, first name, last name, about yourself/bio, areas of interest(can choose multiple interests), user type(student/professional), experience, domain expertise, role, profile picture
Milestone 3	Create models to support user, course, user's cart, user's order
Milestone 4	Create an API to show all the details of a user and the course allotted to him1
Milestone 5	Create an API to add course
Milestone 6	Create an API to delete course
Milestone 7	Create an API to map one user to given N courses
Milestone 8	Create an API to de-map one user from given N courses
Milestone 10	Create an API to add/remove course to cart of a given user
	Create an API to add course to a given user's cart
Milestone 11	Create an API to summarize what is the current content of a given user's cart, (<i>brownie point: can you generate a receipt as a file?</i>)
Milestone 13	List the available courses, which should be paginated. There should be provision to sort by price (low to high, high to low) and filter options based on course name, course category etc.
Milestone 14	Create an API to add reviews and ratings for the course.
Milestone 15	Create an API to get all the required details of a single course.
Milestone 16	Create an API to check out the cart items. This will be creating the order.
Milestone 17	Create functionality to get the courses in order based on the performance in the current year. Performance can be decided on parameters like how many times the course is bought, how many students completed the course, average ratings.
Milestone 18	Create a batch job set popularity rank of the course

Note:

- A feature will only be marked as complete only if the corresponding test cases are completed.