

SkillMagnet

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Project Background



Vision:

Provide a **centralized platform** for students to access quality educational resources and user-driven study tools.

Quizlet + **coursera**

Goal:

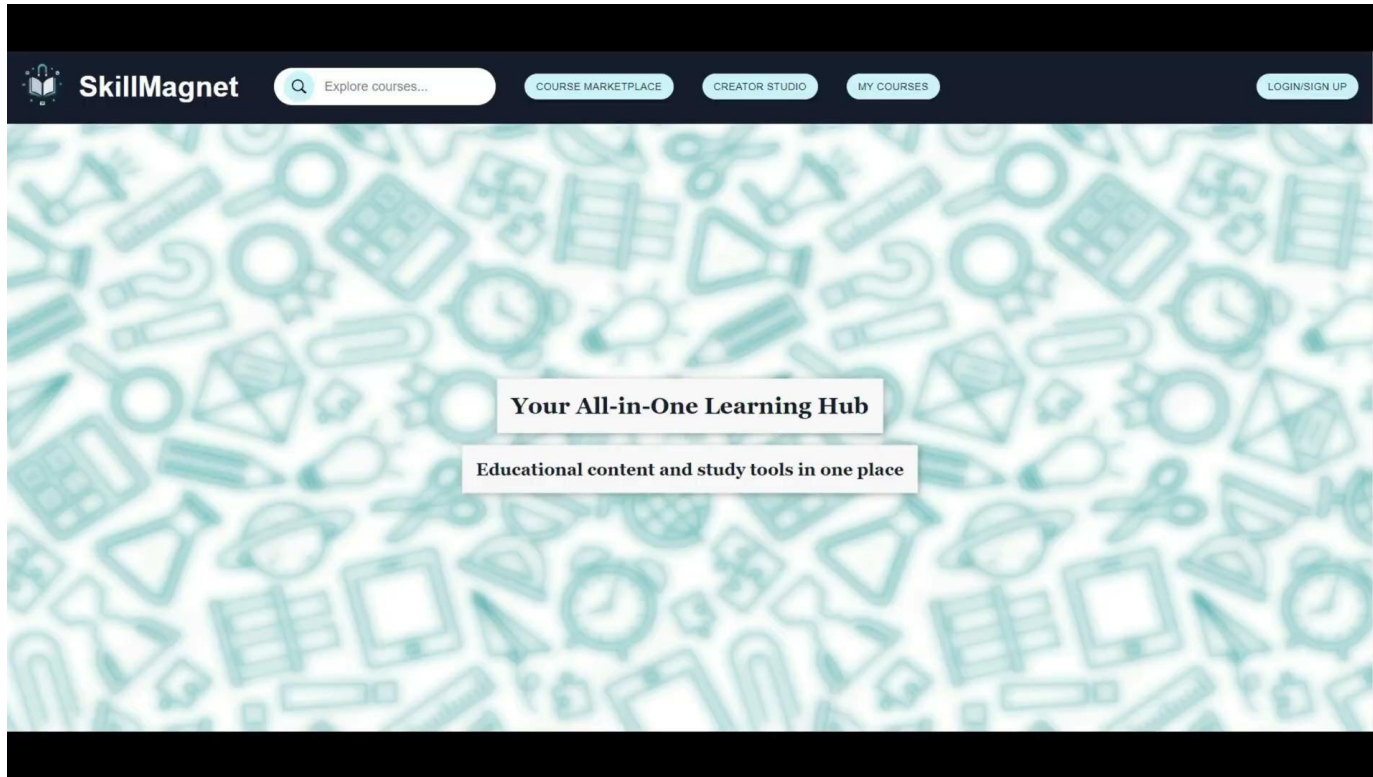
Create and deploy a Minimum Viable Product where real student users could test **key features** and provide us with feedback.

Project Scope

Main Features:

1. Course Viewer
2. Lesson System
3. Note Taking/Quiz System
4. Progress Tracking
5. Course Marketplace
6. Creator Studio
7. Graph Database Recommendation System
8. User Accounts
9. AWS S3 video storage

Basic Project Demo



Creator Studio Demo

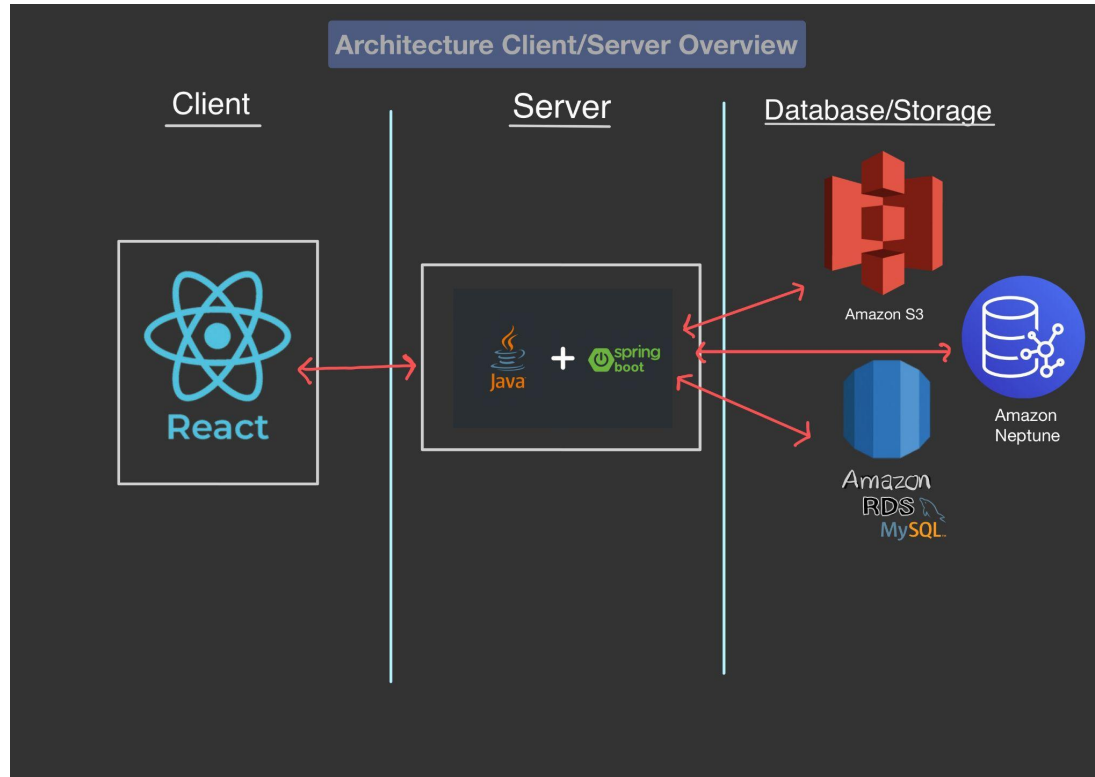
The screenshot displays the SkillMagnet website's Creator Studio interface. At the top, there is a dark navigation bar with the SkillMagnet logo, a search bar labeled "Explore courses...", and buttons for "COURSE MARKETPLACE", "CREATOR STUDIO", "MY COURSES", and "LOGIN/SIGN UP". Below the navigation bar, the "Course Marketplace" section is visible, featuring filter buttons for "All Courses", "Topics", and "Cart". The main content area shows a carousel of four course cards:

- Python 101**: "Learn Python for complete beginners!" with a "5M+ Views" badge and "Its Easy" text. Includes an "Enroll Now" button.
- Drawing For Dummies**: "Learn the basics of drawing. Everyone is invited!" with "LEVEL 1" and "LEVEL 100" labels. Includes an "Enroll Now" button.
- AWS CCP Training**: "Prepare for the AWS CCP Certification test in 2 weeks!" with an "AWS Certified Cloud Practitioner FOUNDATIONAL" badge. Includes an "Enroll Now" button.
- Excel for Beginners**: "Learn everything you need to effectively use Excel!" with an "English" label. Includes an "Enroll Now" button.

Course Recommendations Demo

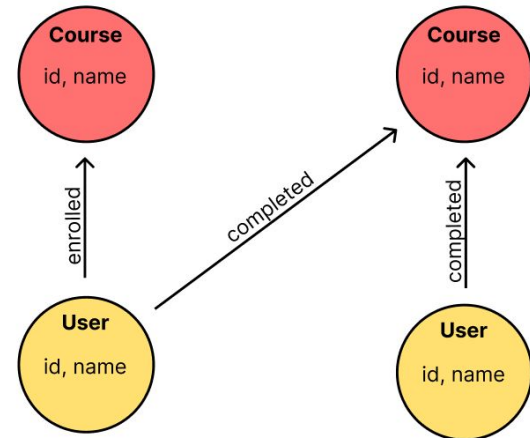
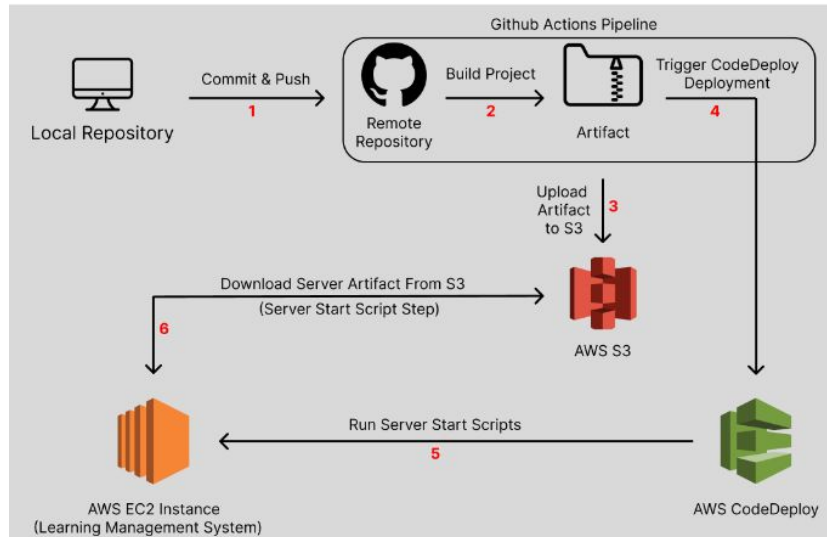


High Level Architecture



Technical Accomplishments

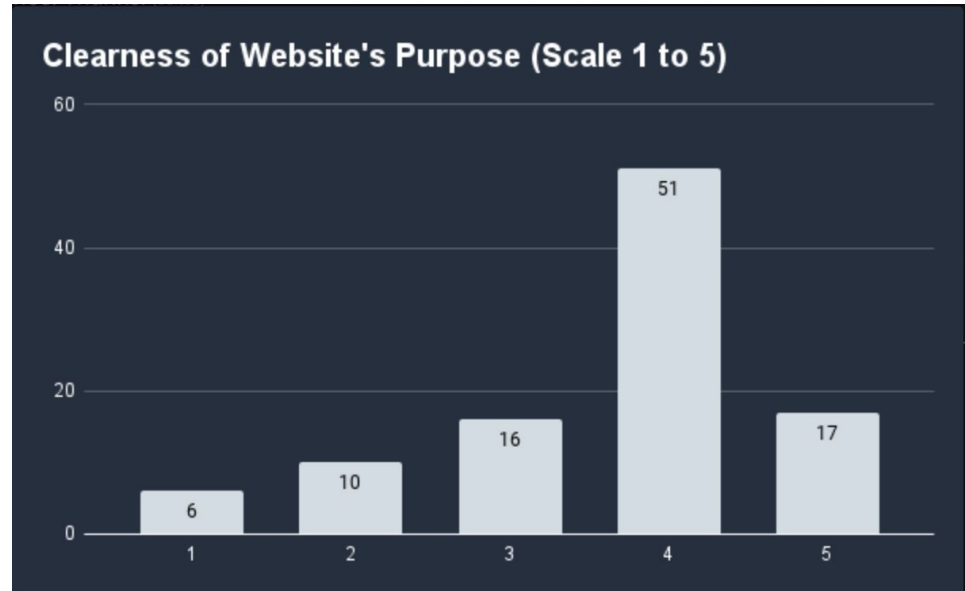
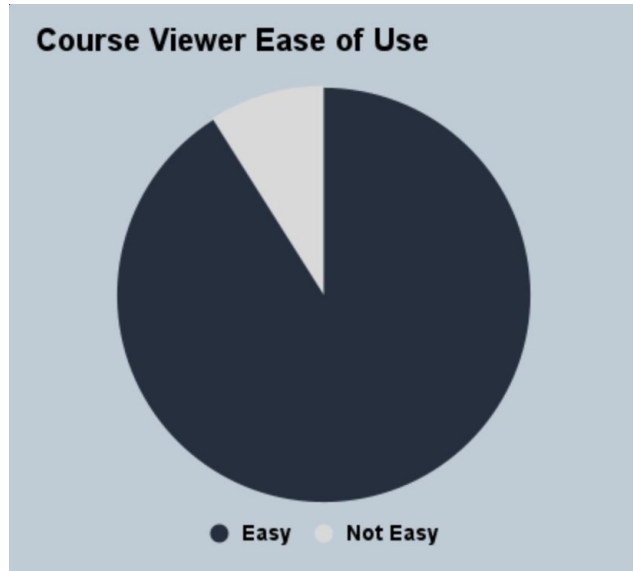
- CI/CD Pipeline + AWS Deployment
- Neo4j Graph Course Recommendations
- Completed 100% of core server features



Client side Accomplishments

- User-Friendly Interface
 - home page, account creation/login, course viewer, quiz system, and course marketplace.
- Progress Tracking
 - progress bar on the courses.
- Course Creator Studio
 - uploading of videos & lessons.
- Interactive Study Tools
 - quizzes, notepad.

User Feedback Charts

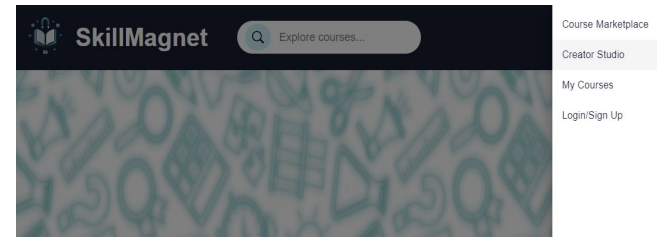


User Feedback Responses

- Total Number of Responses: 90
- Participants: Professor Islam's SE students
- What users thought the purpose of the website was after a quick scan:
 - A platform that provides learning resources specifically aimed at programming
 - An educational website to learn new skills
 - A study tool
- 94% were able to find their enrolled courses, view lessons of a course, and take a quiz
- 89% said the website's responsiveness and loading speed was fast
- 90% said the site was easy to use and navigate
- 92% of users felt engaged by our course viewer

Implemented Feedback

- Adding of the hamburger menu
 - Make navbar dynamic and fit to screen when minimized
- Stylistic changes:
 - Adding more details to homepage
 - Changing cursor on hover for buttons
 - Changing spacing between components



Final Thoughts

- We've achieved the goal that we set out in terms of core functionality which was to create an online learning platform
- What We Learned:
 - Value of user-centric design
 - Importance of continuous improvement
 - Interdisciplinary Collaboration
- Next Steps:
 - Final UI touches
 - Clean up the course marketplace
 - Wiring up the recommended courses list
 - User profile Management
 - Flashcard system