



BoeingLearning

An instance of the Open edX platform with custom features curated for Boeing

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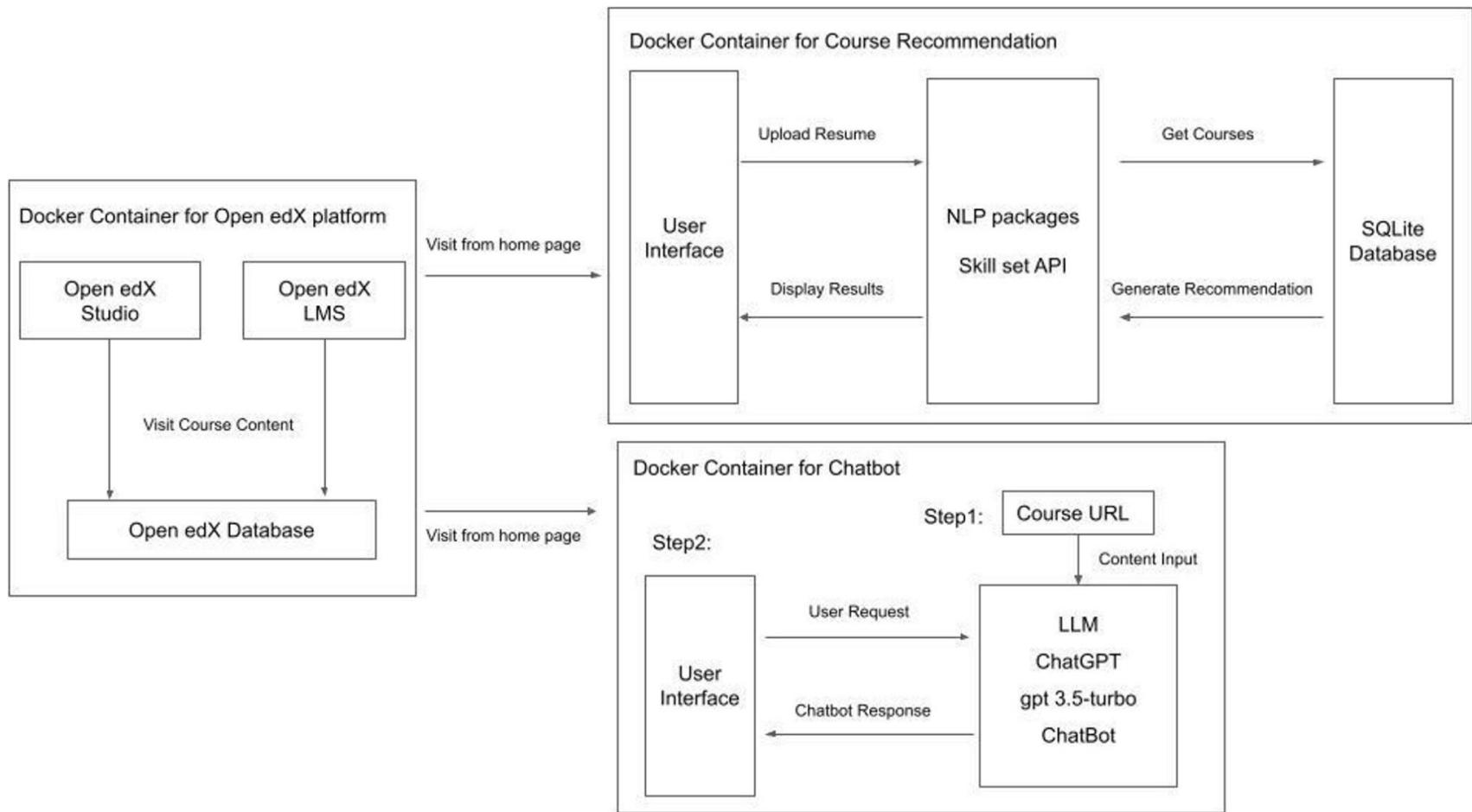
Problem Statement

Open edX is an online learning platform that provides tools to host online pre-recorded course content that can be accessed by students globally. From our research we found some features that are unavailable on the platform and hence have developed two of such features in our product for the Boeing organization.

Goals

- Developing a recommendation system that takes resume as input and generates course suggestions
- Developing a chatbot application for users to interact with.
- Integrating the features into an instance of the Open edX platform.

System Design for the product



Tech used

Languages:



Database:



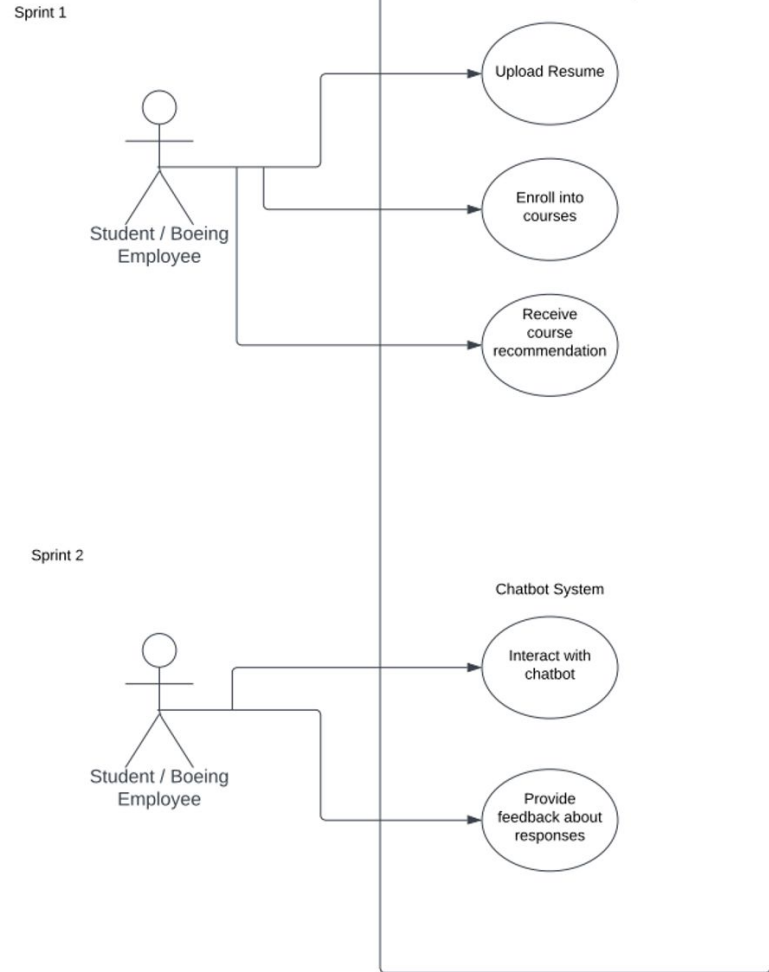
Framework:



Tool:



Use Case diagram of the product



Recommendation System

Our first feature is a resume-based course recommendation system.

- Web interface takes resume as input in .docx format.
- Resume is parsed to extract valuable pieces of information.
- Extracted text is sent to classifier model that categorizes text into a category
- Recommendation system displays top courses from the corresponding category.



The screenshot shows a web interface for 'BoeingLearning'. At the top, a blue header contains the text 'BoeingLearning' and 'Upload Your Resume And We Find Courses For You!'. Below the header, there is a form with two sections. The first section is labeled 'User name:' and contains a text input field with the placeholder text 'Enter your full name'. The second section is labeled 'Resume file:' and contains a file selection button with the text '选取文件' and '未选择文件'. Below the file selection button is a blue 'Upload' button.

A preview of course suggestions provided by the model

CATEGORY

Programming

Intermediate

COURSE

Programming Languages, Part A

This course is an introduction to the basic concepts of programming languages, with a strong emphasis on functional programming.

Continue

CATEGORY

Programming

Beginner

COURSE

Python Programming Essentials

This course will introduce you to the wonderful world of Python programming!

Continue

CATEGORY

Programming

Beginner

COURSE

Parallel programming

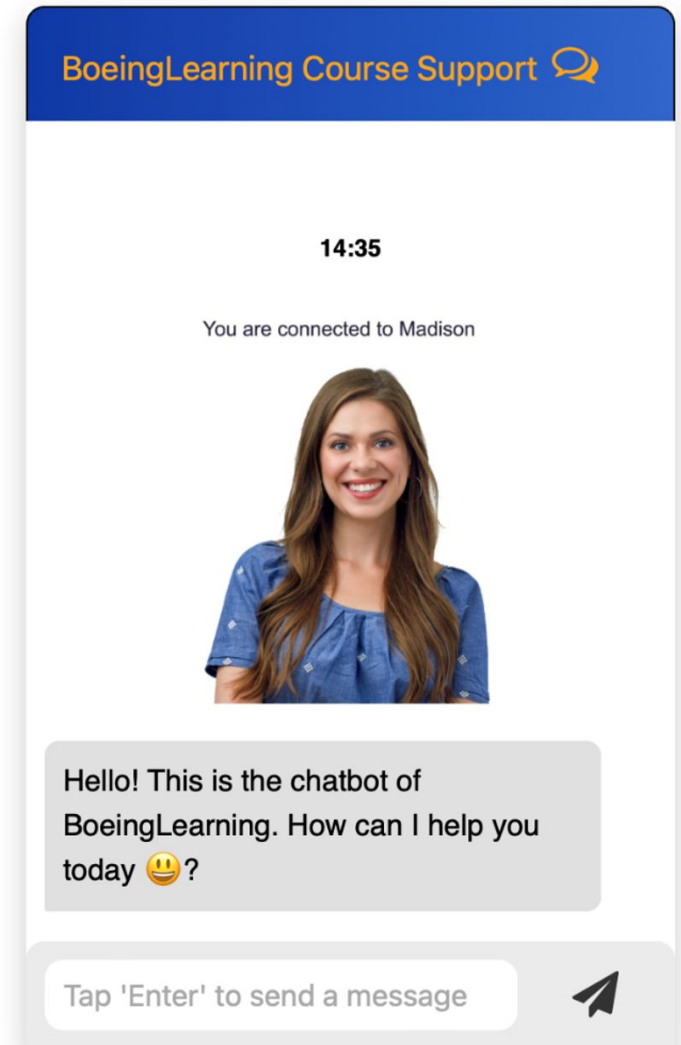
With every smartphone and computer now boasting multiple processors, the use of functional ideas to facilitate parallel programming is becoming increasingly widespread.

Continue

Chatbot

Our second feature is the user friendly chatbot application that provides helpful answers to users regarding course content.

- Chatbot uses OpenAI's ChatGPT api to generate useful and helpful responses.
- Users can ask the application questions about courses and other relevant topics.
- The application is designed with the goal of easing the human-computer interactions that happen on online learning platforms.



BoeingLearning platform from the user's perspective



Courses

Discover New

Recommendation

Chatbot

Help



gyscs



My Courses

Calhoun Transdisciplinary Fusion Studio 1

Boeing - BOE101

2



View Course

Search Your Courses



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BoeingLearning platform from the instructor's perspective



Help gyscs ▾

Studio Home

+ New Course

+ New Library

Recommendation

Chatbot

Courses Libraries

Calhoun Transdisciplinary Fusion Studio 1

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Re-run Course

View Live

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LMS

