

CourseBuddyAI User Guide Documentation

1. Software Installation

1.1. Chrome Web Store Installation (Recommended)

CourseBuddyAI is currently available as a browser extension on the Chrome web store.

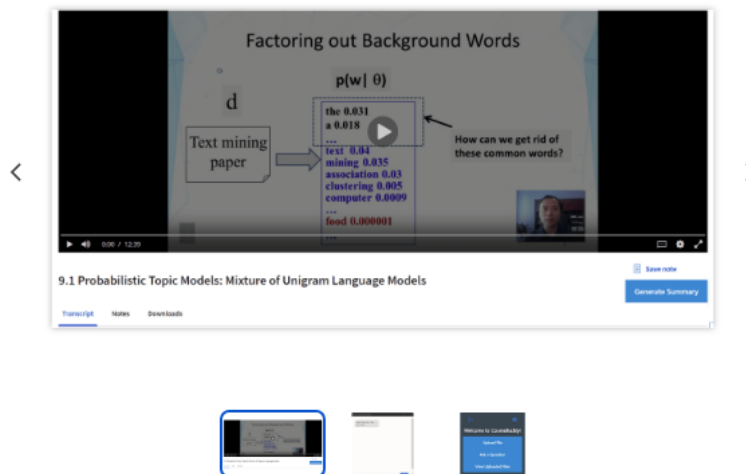
Note: It can only be accessed and installed from the below link

<https://chromewebstore.google.com/detail/coursebuddyai/lcoikcmmgmfmccakgbfgobbnmamaibnhm?hl=en>

1. Click on the Add to Chrome button next to the extension.



Extension Tools




Overview

CourseBuddyAI is a Chrome extension that enhances the Coursera Platform, allowing users to upload lecture files for summarization.

CourseBuddyAI: Enhance Your Coursera Learning Experience with the power of AI!

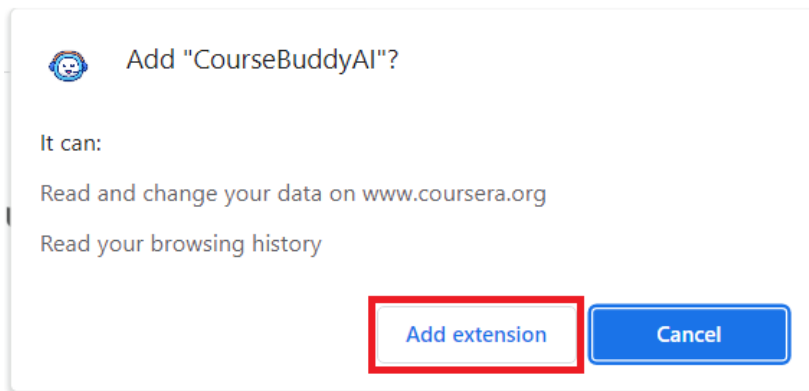
CourseBuddyAI is your ultimate companion for Coursera courses, designed to enhance your learning experience by providing automated summaries of course content. It leverages the power of ChatGPT to generate concise and informative summaries from lecture transcripts/slides and answer students questions through a chatbot interface.

 Features:

CourseBuddyAI offers a range of features to streamline your learning process:

- Automated Summaries: Generate concise summaries of course content from uploaded lecture transcripts and slides (PDF/PPT).

2. A confirmation dialog box will appear. Click on Add extension to confirm.



3. The extension will now be downloaded and added to your Chrome browser. You can see it in the top right corner of the browser, next to the address bar.
4. If you can't see the extension, click on the puzzle piece icon in the top right corner to see all your extensions.
5. It recommended you pin the extension to your toolbar for easy access.

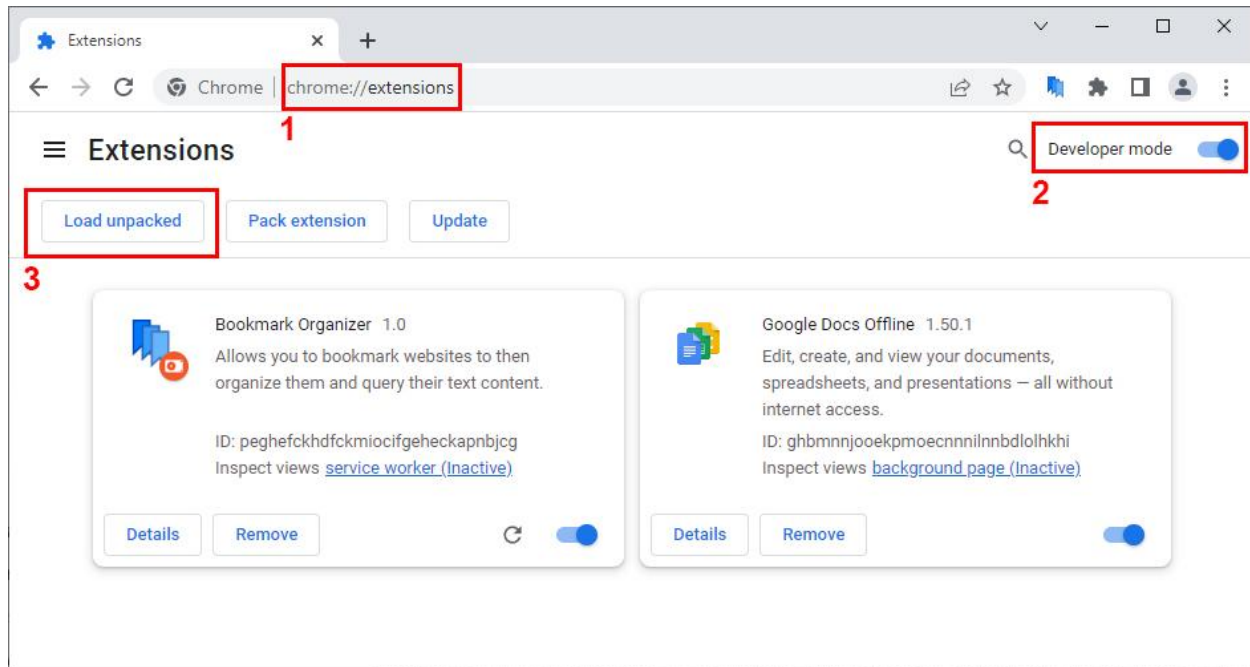
1.2. Manual Installation

If you would like to install it manually instead, navigate to our GitHub repo releases page:

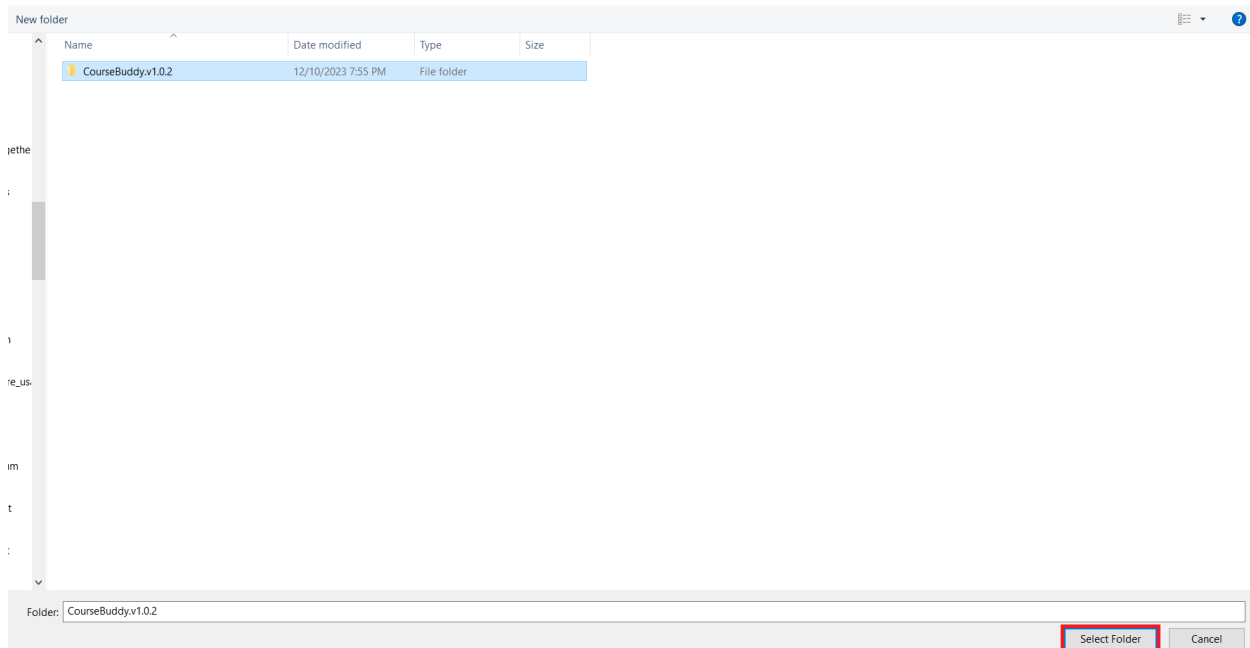
https://github.com/abaldeo/CS410_CourseProject/releases

1. Find the latest release and download the zip file that starts with “CourseBuddy”

2. Extract the downloaded zip file to a folder on your computer.
3. In a new Chrome tab, navigate to the URL: **chrome://extensions**
4. Enable "Developer mode" if it is disabled
5. Click the "Load unpacked" button



6. Navigate the the unzipped extension folder and select it to import it



7. It recommended you pin the extension to your toolbar for easy access.

2. Software Usage Guide

PLEASE NAVIGATE TO COUSERA.ORG IN ORDER TO USE THE EXTENSION

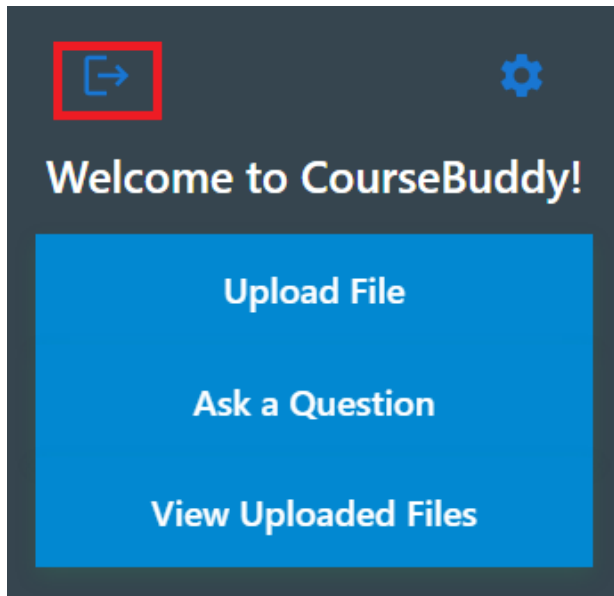
2.1. How to Sign-up/Login to use CourseBuddy

1. If you're a first-time user, please click on the extension to see the sign up button to make an account. A popup window will appear where you can enter your email and a password. You will be prompted to enter your password again to confirm before submitting.

The image displays two screenshots of the CourseBuddy interface. The left screenshot shows the main CourseBuddy page with a 'SIGN UP' button highlighted by a red border. The right screenshot shows a 'CourseBuddy Sign Up' popup window with the following fields: 'Email Address *' (containing 'demo@example.com'), 'Password *' (containing masked characters), and 'Confirm Password *' (containing masked characters). A 'SIGN UP' button is at the bottom of the popup, also highlighted with a red border.

2. After signing up, you will be directly signed in with those credentials you used to sign-up (no email confirmation required).

3. You can logout by clicking the arrow icon on top-left of the extension menu.

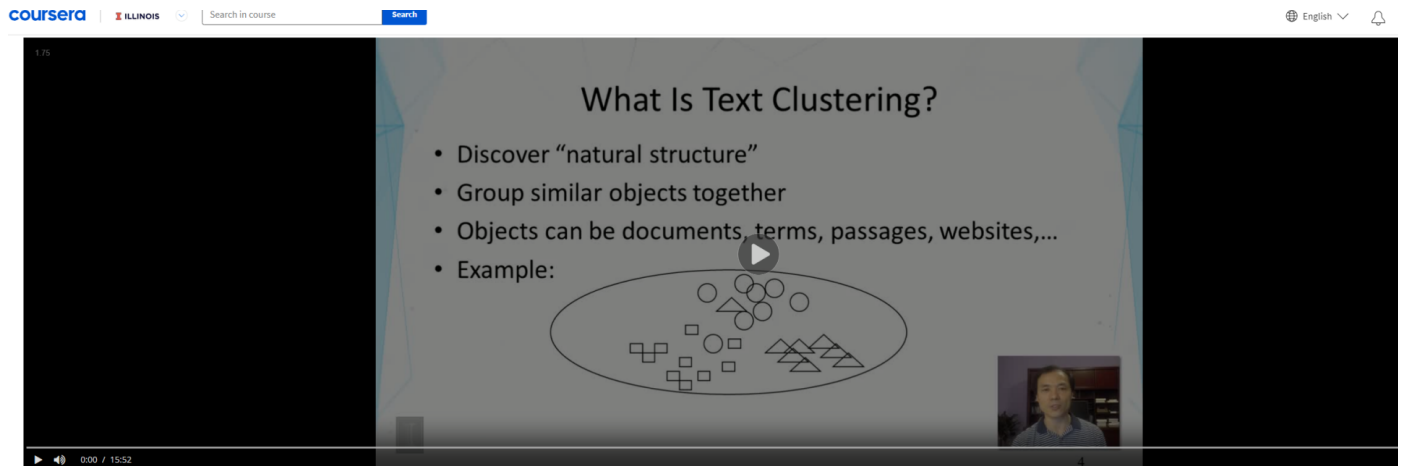


4. You can log back in again by clicking on the extension drop-down and entering the email address and password you signed up with then clicking the login button.

A screenshot of the CourseBuddy login page. The page has a white background with the "CourseBuddy" logo at the top. Below the logo, there are two input fields: "Email Address *" with the text "demo@example.com" and "Password *" with masked characters. At the bottom, there are two blue buttons: "SIGN IN" (highlighted with a red border) and "SIGN UP".

2.2. How to Generate a Summary for a Lecture Video

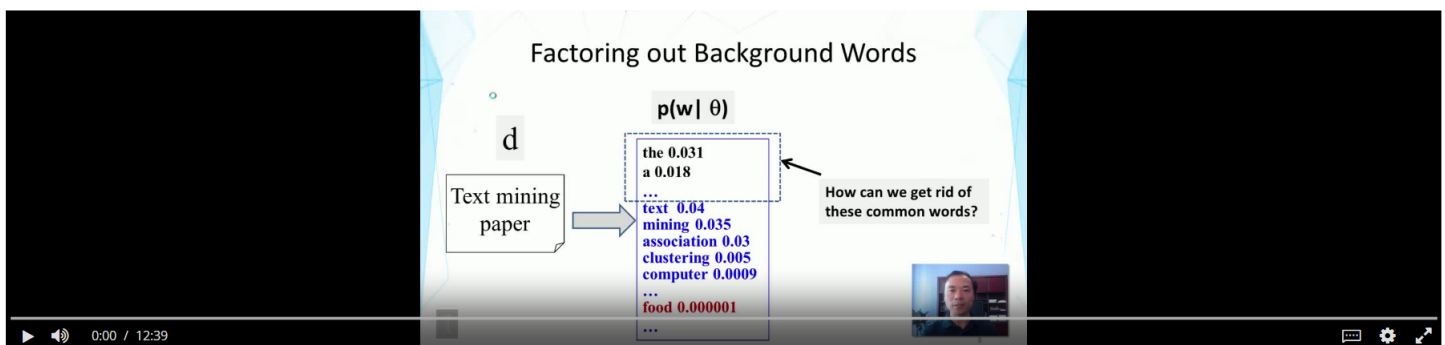
- First download the transcript of the video you want to summarize



10.1 Text Clustering: Motivation

- Transcript Notes Downloads
- [Lecture Video \(360p\) mp4](#)
 - [Lecture Video \(720p\) mp4](#)
 - [Subtitles \(English\) WebVTT](#)
 - [Transcript \(English\) txt](#)

- Then upload the file using the instructions from **2.3. How to Upload Lecture Transcripts/Slides**
- Now you can click the 'Generate Summary' button and an embedded summary will appear on the page.



- Text discusses the concept of mixture of unigram language models in probabilistic topic models.
- Problem addressed is the presence of frequent background words that skew maximum likelihood estimation.
- Solution proposed is to use a background topic model to account for common words.
- Word generation involves flipping a coin to decide which distribution to use.
- Probability of observing a word from mixture model is sum of probabilities of selecting each component model.
- Parameters of the model, including word distributions and topic coverage, can be estimated using data.
- Likelihood function is similar to previous model, but with a sum instead of one distribution.
- Maximum likelihood estimator is used to find parameters that maximize likelihood function.
- Estimation is subject to constraints.
- Mixture models are a general form for handling this problem.
- Mixture models help address the issue of frequent background words in data.
- Background topic model helps account for common words in the mixture model.

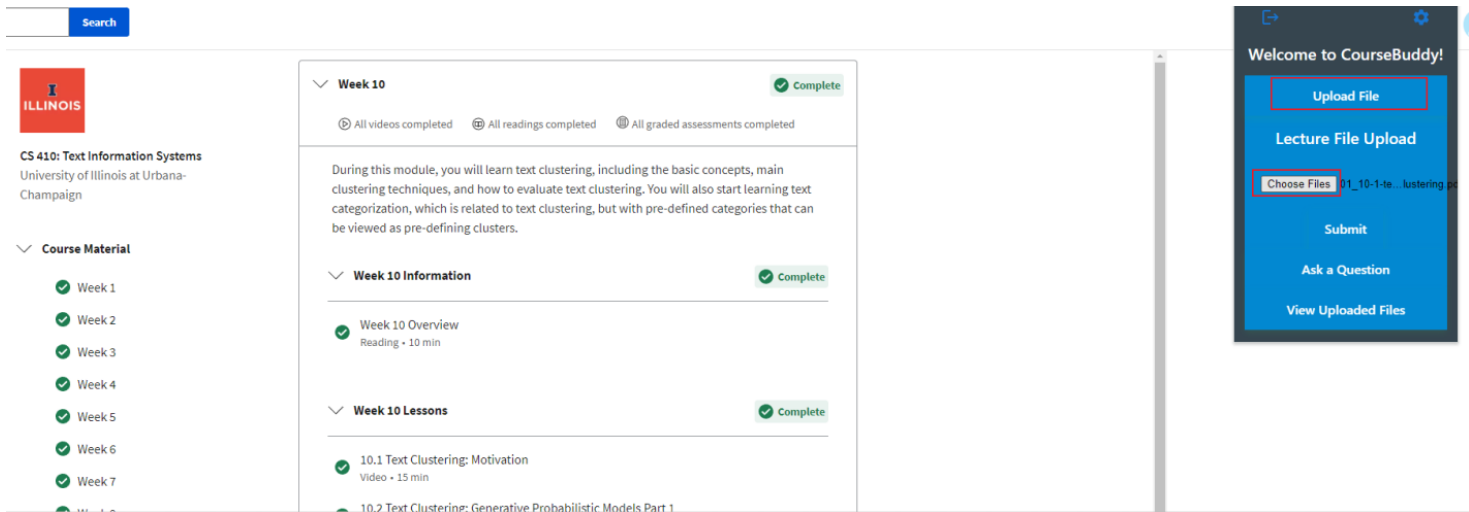
9.1 Probabilistic Topic Models: Mixture of Unigram Language Models

Save note

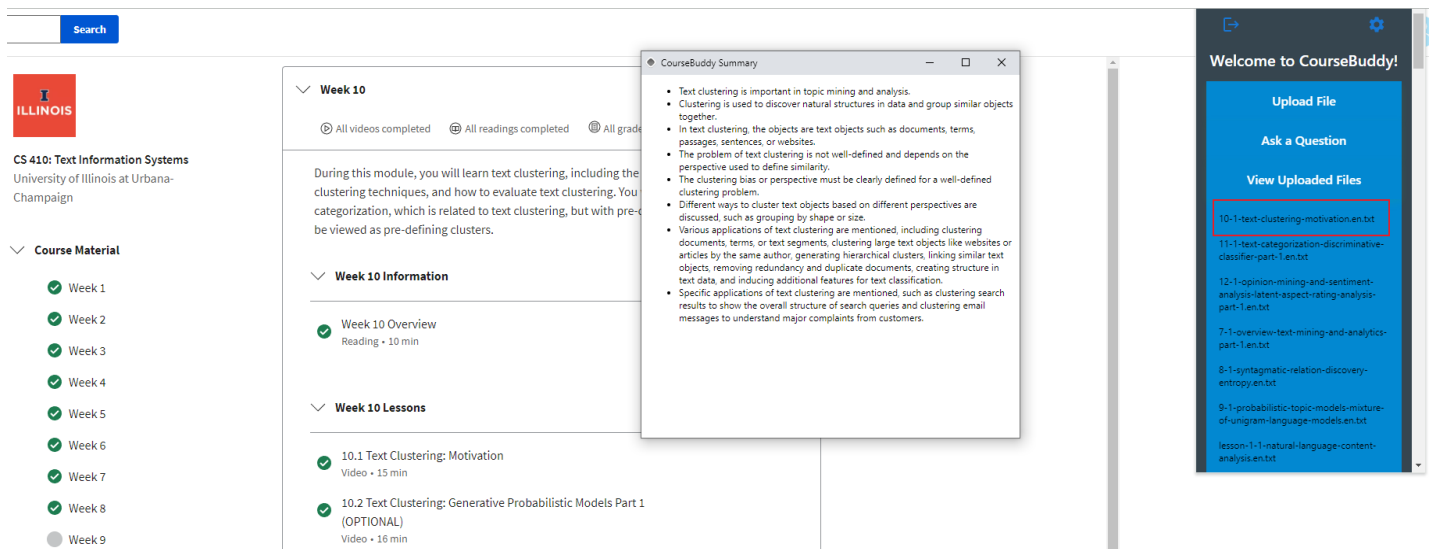
Generate Summary

2.3. How to Upload Lecture Transcripts/Slides

- Select 'Upload File' and from there you can upload a .txt or .pdf file
 - After choosing the file, please click the Submit button below it.
- NOTE:** You may need to hit the submit button twice for it to be submitted

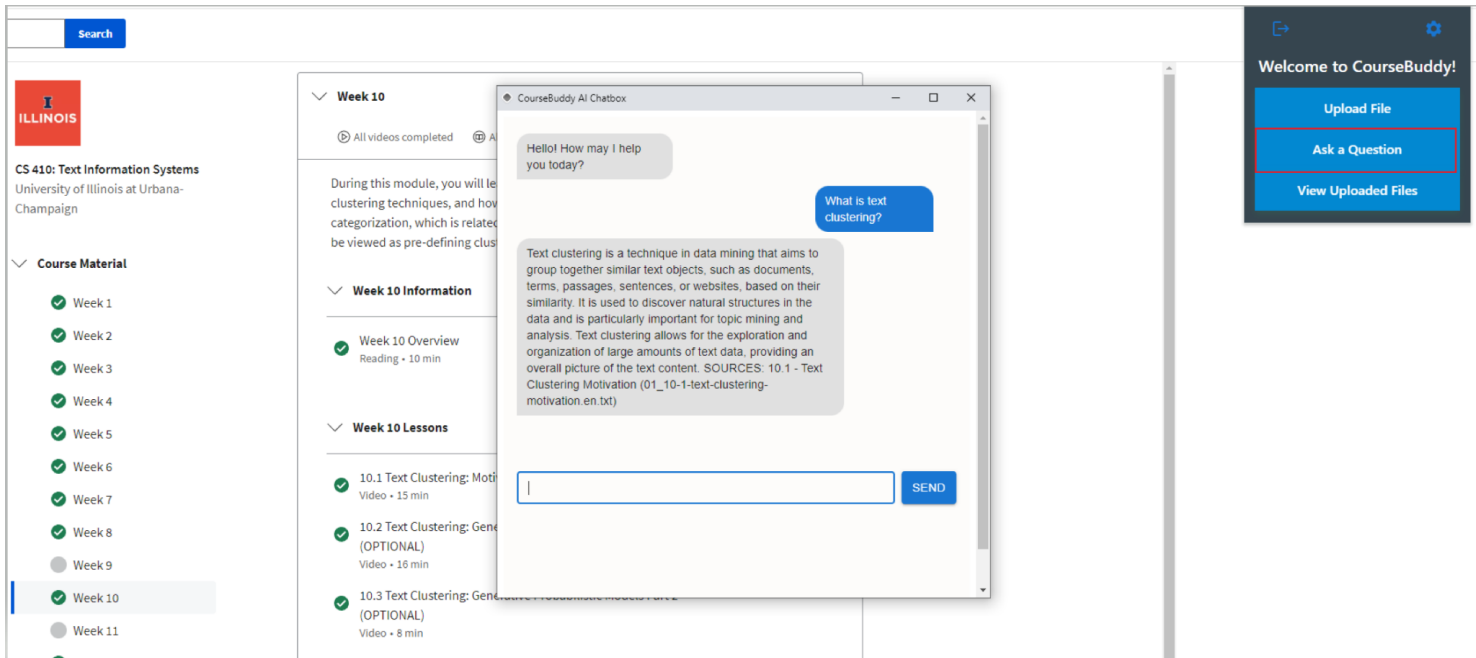


- Select a file from the View Uploaded File list and a pop up will load the generated summary for that lecture.



2.5. How to Ask the Chatbot Questions

- Select 'Ask a Question' that will cause a pop up to appear.
- This pop up is now the chatbox, type in a question and press enter or click the 'send' button. Then your question will be answered with a source citing the specific lecture the answer was derived from. Please note it can take some time for a response to be generated, so please be patient.



3. Software Testing Instructions

This portion of document is intended for TAs and peer reviewers

Prerequisite:

1. For testing, please login to CourseBuddyAI extension using the following credentials

Email: demo@example.com

Password: Demo123!

3.1. Test Summarization

1. Navigate to the the following lecture video: titled "9.1 Probabilistic Topic Models: Mixture of Unigram Language Models"

<https://www.coursera.org/learn/cs-410/lecture/EbbsO/9-1-probabilistic-topic-models-mixture-of-unigram-language-models>

2. Click on the “Generate Summary” button, should expect to see summary text appear under the video.

3.2. Test Question Answering

1. Open the CourseBuddyAI chatbot and try asking one of the following questions:
 - a. What is text clustering ?
 - b. What is the vector space retrieval model?
 - c. When does browsing tend to be more useful?

3.3. Test File Upload

1. Try downloading the following file
https://nyc3.digitaloceanspaces.com/coursebuddy/cs410/transcripts/01_10-1-text-clustering-motivation.en.txt
2. Navigate to the video associated with the file that was just downloaded:
<https://www.coursera.org/learn/cs-410/lecture/FcCdt/10-1-text-clustering-motivation>
3. From the extension click upload file and select the downloaded file then submit it
4. After uploading it, go to “View Uploaded Files”
5. You should see the file and the generated summary when clicked on