

Crit B

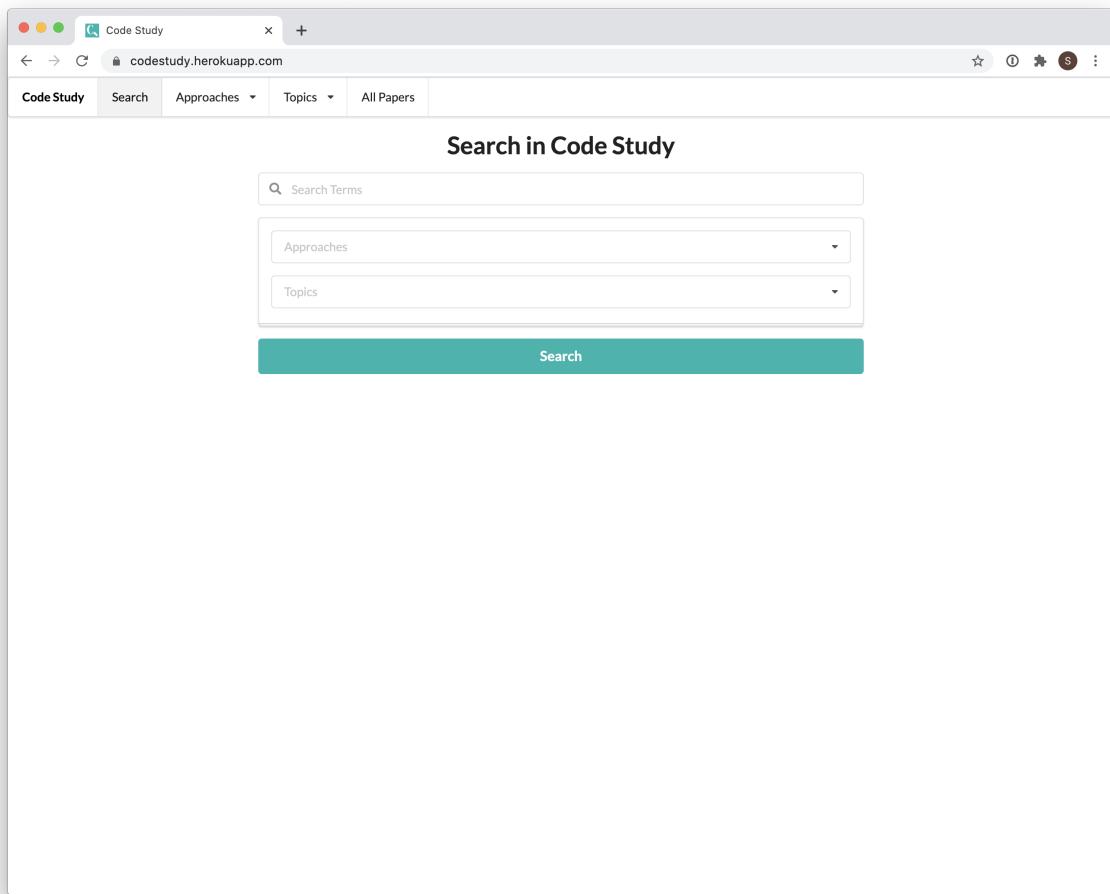
Use Cases

Iteration 1

Iteration 2

The client feedback that she would like to use the help of students to manage some paper for her but would not want them to change who can edit the papers. Therefore I have decided to refactor the user into three groups: standard, editor and admin. Standard users can only view the website and bookmark for themselves, editors can, in addition, add, edit and remove papers, and admin can, in addition, manage the permissions of users.

Iteration 3



I have added a header to navigate to different functions of the web app, and designed a favicon for the website.

UML

Mockup

Landing Page

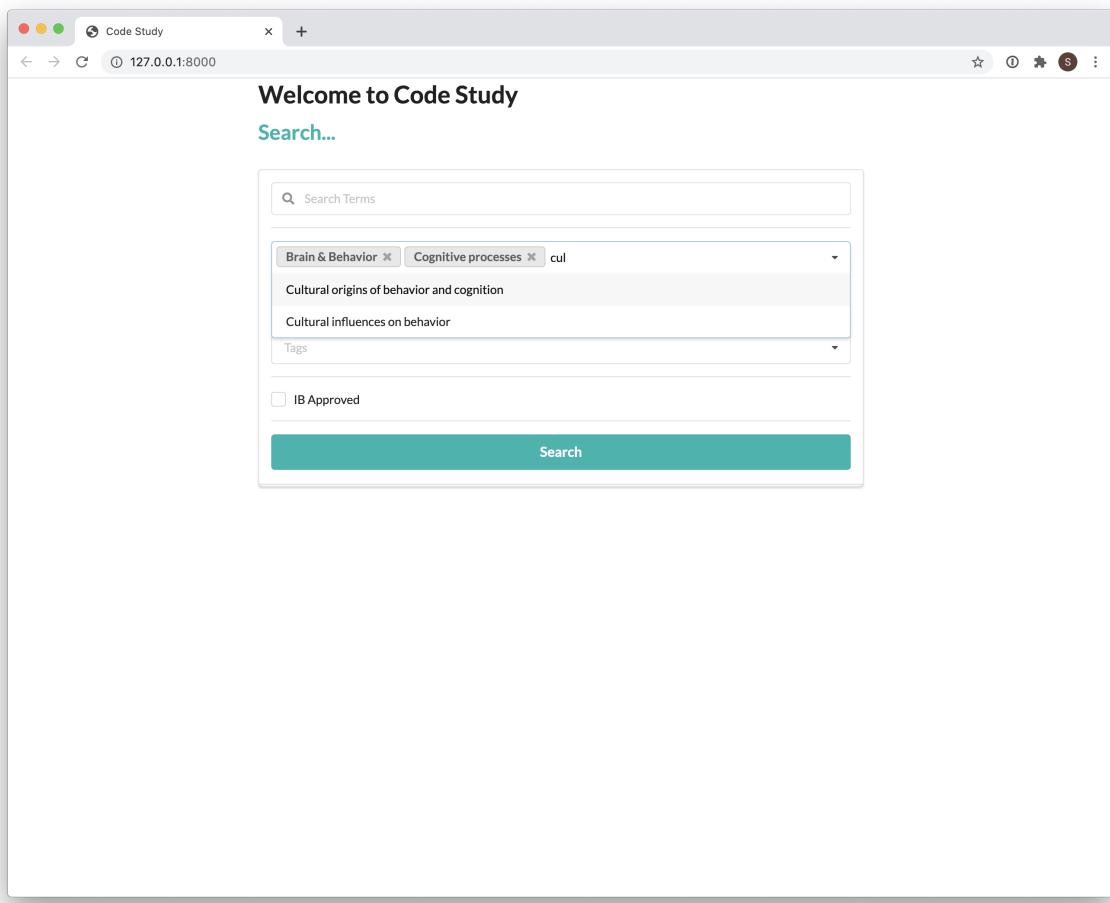
This is the page that the user first sees when he/she open the application. It presents them options for their search. Layout is powered by Bootstrap.

Iteration 1

The screenshot shows a web browser window titled "Welcome" with the URL "codestudy.herokuapp.com". The page has a light gray header with a "Guest" link. The main content area has a white background and features the following elements:

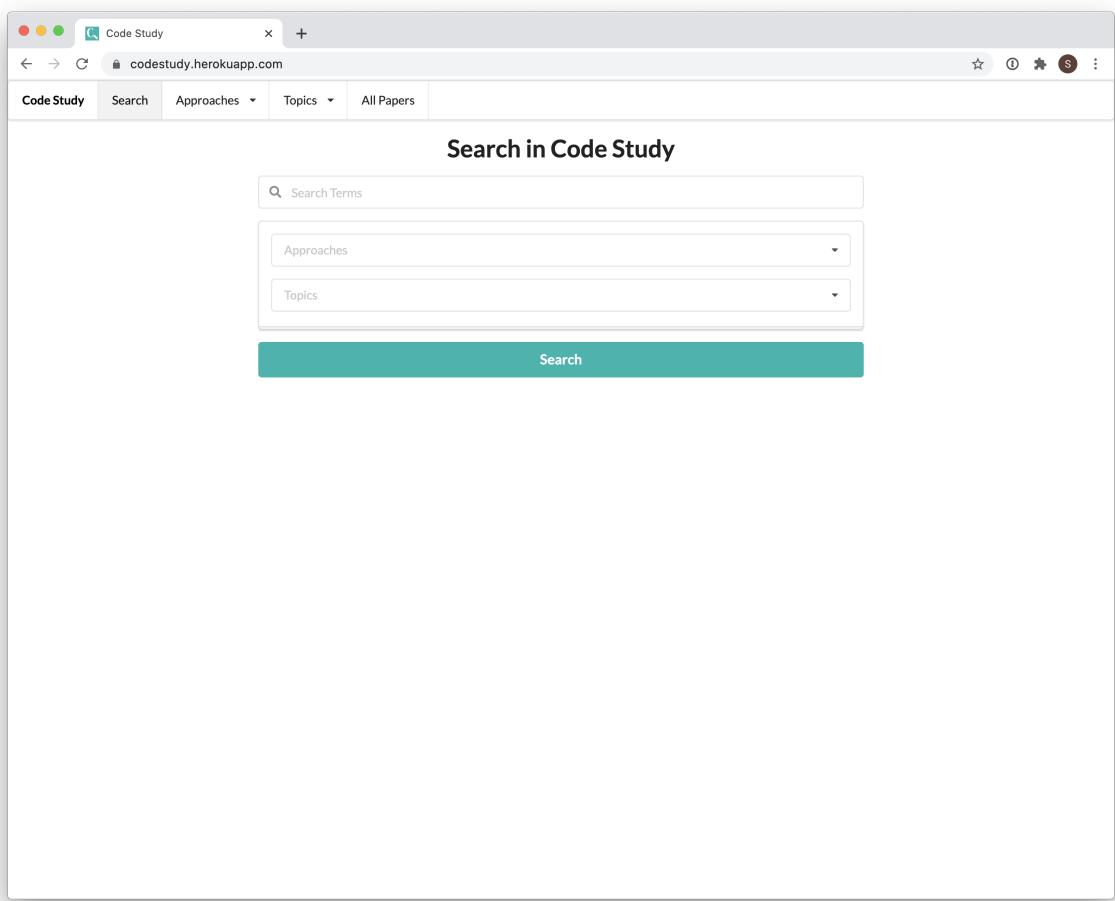
- Section Header:** "Search for Code Studies" (bold black text).
- User Role:** "Self" (blue text).
- Search Terms:** A text input field containing "Cognitive Schema".
- Topic:** A dropdown menu labeled "Choose...".
- Approach:** A dropdown menu labeled "Choose...".
- Checkboxes:** Two checkboxes: "IB Approved" and "Other options...".
- Options:** A section with three radio buttons labeled "#1", "#2", and "#3". The "#1" option is selected (blue radio button).
- Search Button:** A large blue button with the word "Search" in white.

Iteration 2



After the first iteration, the client gave me feedback that she would want to be able to select multiple topic and approaches for each search box. After I have found no way to implement it with Bootstrap and I didn't want to write UI from scratch because it will inevitably look ugly, I found out that I could use a framework called Semantic UI.

Iteration 3



In this iteration, I have added a navigation bar and a sign in with Google option.

Results Page

Iteration 1

The screenshot shows a web browser window with the title "Search Results for Bandura Experiment". The URL in the address bar is codestudy.herokuapp.com/result/?search-terms=Bandura+Experiment&topic=Cognitive+processes&approach=Sociocultural+Approach&payment=Free. The page displays a grid of cards, each representing a study. The first card on the left contains a thumbnail image of people in a field, followed by a summary of Berry's research, a "Study 1" section with a title and abstract, and a "Procedure and results" section with a detailed description. The other cards follow a similar structure with placeholder text and "View" and "Edit" buttons.

Card 1 (Left)	Card 2 (Top Row, 2nd)	Card 3 (Top Row, 3rd)
Summary of Berry's research: Berry carried out a cross-cultural study of conformity. He can use this study to explore the following content in the sociocultural approach: Research methods used in the sociocultural approach The role of culture in behaviour The role of culture on one behaviour. The abstract of the original study is available here. Procedure and results Berry's research is based on earlier research by Berry, Child, and Bacon (1959) which suggested that highly conforming individuals were more likely to conform to a majority than non-conformist. In actually, the word "collective" was not used because the research was done prior to Hofstede's famous theory of collectivism. Berry's research had the aim of measuring the level of conformity in these two types of societies by applying a version of the Asch Paradigm. For this sample, Berry used three distinctly different cultures. First, the Temne of Sierra Leone, a society that is highly collectivistic. A second sample was drawn from the United States, a society that is less collectivistic. A third sample was drawn from the United Kingdom, a society that is moderately collectivistic. Study 1: Title... Abstract: ... View Edit 9 mins	This is a wider card with supporting text below as a natural lead-in to additional content. This content is a little bit longer. View Edit 9 mins	This is a wider card with supporting text below as a natural lead-in to additional content. This content is a little bit longer. View Edit 9 mins
This is a wider card with supporting text below as a natural lead-in to additional content. This content is a little bit longer. View Edit 9 mins	This is a wider card with supporting text below as a natural lead-in to additional content. This content is a little bit longer. View Edit 9 mins	This is a wider card with supporting text below as a natural lead-in to additional content. This content is a little bit longer. View Edit 9 mins
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This is the page where users get their search results in these card-like info boxes, from which they can see the results.

Iteration 2

The screenshot shows a web browser displaying the 'All Papers' page of the 'Code Study' website. The URL is codestudy.herokuapp.com/all-papers/. The page has a header with tabs: 'Code Study', 'Search', 'Add Paper', 'Edit Tags', 'Approaches', 'Topics', and 'All Papers'. A user profile for 'Allison Dolby' is shown on the right. Below the header, there are two main columns of study cards.

Study 1: Abrams et al (1990) tested the role of social identity on one's likelihood to conform.

Procedure and results: The aim of the study was to determine if in-group identity would affect one's willingness to conform. Abrams et al (1990) used an independent measures design which included four groups and manipulated two dimensions: in-group/out-group and public/private. The dependent variable was the number of times the participant was asked whether the participant's responses were public or private. So, it used a 2 x 2 factorial design. The results showed that participants in the in-group public condition were more likely to conform than those in the other three conditions.

Background information: One aspect of the Social Identity Theory is that we tend to show in-group bias - that is, a preference for people in our own group and a bias against those that are not in our group. The study is quite complex and has a lot of detail. The summary below gives you some key points that you need for the exam. However, if you want to know more about the study, please go to the original paper.

Study 2: Bandura, 1961 SCT SLT

Procedure and results: In this study, Bandura set out to demonstrate that children are passive witnesses to an aggressive display by adults and will then imitate this aggressive behavior when given the opportunity. More specifically, the study made the following predictions:

- children exposed to aggressive models will reproduce aggression towards those of the same sex model - more than those exposed to opposite sex
- children will imitate the behavior of a same-sex model to a greater degree than a model of the opposite sex

Thirty six boys and 36 girls aged between 37 and 80 months were tested. The mean age was 52 months. Thirty boys and 30 girls imitated the aggressive behavior of the model they had seen. This is a significant difference to chance. The results support the predictions of the theory.

Background information: The second key finding was that groups demonstrated an in-group bias. The tendency to favor one's own group over other groups is called in-group bias. In-group bias is a form of discrimination in which one's own group is favored and there is discrimination against members of an out-group.

Study 3: Bagby & Rector, 1992 SIT in-group bias

Procedure and results: The sample was made up of 102 psychology students from the University of Quebec in Montreal (70 per cent French-speaking). The researchers carried out a true experiment to see if one's social identity would influence their objectivity when judging a rape trial.

Background information: The participants were asked to read a transcript of a rape trial which varied the ethnicity of the defendant and the victim - between Anglophone (English-speaking) and Francophone (French-speaking) Québécois. In some cases, the defendant was a native French speaker and the victim was a native English speaker. In other cases, the defendant was a native English speaker and the victim was a native French speaker. And so on.

Approaches: Biological, Sociocultural
Topics: The relationship between genetics and behavior, Emotion and cognition

Approaches: Sociocultural
Topics: The relationship between genetics and behavior, The reliability of cognitive processes

This iteration is unchanged in principle compared with the first iteration, but since I changed the framework, the design looks different.

Edit Tags Page

This page is used to add and delete tag and tag groups in the database.

Iteration 1

The screenshot shows a web application titled 'Edit Tags | Code Study' with the URL 'codestudy.herokuapp.com/edit-tags/'. The interface is divided into two main sections: 'Approaches' and 'Topics'.
Approaches:
- Biological
- Cognitive
- Sociocultural
- New tag...
Topics:
- Brain & Behavior
- Hormones and pheromones and their effects on behavior
- The relationship between genetics and behavior
- Cognitive processes
- The reliability of cognitive processes
- Emotion and cognition
- The individual and the group
- Cultural origins of behavior and cognition

Design Description

The program is entirely based on the web, part of the functionality will be accomplished through JS running on client's computer, but a core part of the program will be accomplished through back-end code in Python running on Heroku and storage stored in AWS S3. The UI will be rendered using client's web browser

Class Dictionary

Properties

This class does not have any property.

Class - Paper

This class represents a paper stored in the database

Iteration 1

Property	Signature	Description
Name		
tags	tags: String[]	This returns the tags that the paper is associated with through manual assignment or automatic detection by the classifier.
topics	topics: String[]	Self-explanatory. Similar as above.
approaches	approaches: String[]	Self-explanatory. Similar as above.
methods	methods: String[]	Self-explanatory. Similar as above.
ethics	ethics: String[]	Self-explanatory. Similar as above.
pdf	pdf: File	This stores the pdf of the paper
png	png: File	This stores the screenshot of the first page to be displayed on the results page.
text	text: String[]	This is the content of the paper, extracted in plain text form to increase the search speed.

Iteration 2

Property	Signature	Description
Name		
title	title:String	This is the title of the paper that the user inputs, short and direct.
description	description:String	This is the description of the paper that the user inputs. It can be used as a abstract of the paper.
tags	tags: String[]	This returns the tags that the paper is associated with through manual assignment or automatic detection by the classifier.
pdf	pdf: File	This stores the pdf of the paper
png	png: File	This stores the screenshot of the first page to be displayed on the results page.
text	text: String[]	This is the content of the paper, extracted in plain text form to increase the search speed.

I realised that the user wants more flexibility to add and remove tag that I cannot foresee during development, so I've generalized the class to allow for more flexibility.

Methods

This class does not have any method.

Class - Search Engine

This is an API for interacting with the search engine that returns the paper given some phrases. The implementations of the methods are not shown here. It might be implemented with the Google Search Engine or one that I write myself. A search engine is algorithm-based, therefore it's difficult to break it down into smaller methods.