



@HuffDuff

Project Proposal

The Bennett Navigation Website

Team Members:

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Project Team:

Cicada 3301

THE PROJECT THAT WILL MAKE BENNETT LESS OF A MAZE AND MORE OF AN EASY-
TO-UNDERSTAND CAMPUS



About Huff Duff

Huff duff, a shortest distance routing program, will be a web application that will calculate the most efficient route between two points on a map. Our program will utilize various algorithms and data structures, them being Dijkstra's algorithm or A* algorithm, to determine the shortest path based on distance and time. Hopefully in the future we might also be able to include weather conditions or take into consideration if a path is being renovated and change the path accordingly. The program will make use of maps and other data sources to accurately

determine the distance between two points and to avoid obstacles or detours. The program will also provide information on estimated time, of arrival, directions, and other relevant information to the user if we will be able to fully understand and make use of java to share this information with the user. This type of program is commonly used in navigation applications for vehicles, bicycles, or pedestrian travel but ours will be used to find any classroom or navigate through the university.

Future Plans

“Coincidentally we were able to fix a major problem, it being time, for our upcoming full-blown application that could solve many problems that CollPoll as of now unable to. The solution being that another group is currently working on a website that can help students organize and announce events on a timetable – Club Central. We hope to merge with said project since adding a feature to find the shortest path to your class, when its time for said class would be a neat feature.”



Our Team Roles

SIDDHARTH VETHODY

Position: Front-End and Back-End Developer

Explanation:

- Will make use of HTML & CSS for webpage structure and behaviour designing
- Will make the webpage more interactive and easier to use for the user, with the help of JavaScript
- Will help connecting backend (Java) to frontend (HTML) using spring framework
- Will be helping Ayush in developing the code required to find the shortest path using the varying algorithms

AYUSH GARG

Position: Front-End and Back-End Developer

Explanation:

- Will be developing backend code using different algorithms to find the shortest path in java
- Will encode maps (courtesy of Abhay) into the program itself using Base64 encoder
- Will also help connecting backend (Java) to frontend (HTML) using spring framework
- Will help Siddharth in JavaScript to make the animations more appealing

ABHAY PRATAP

Position: Website Manager, Map Designer

Explanation:

- Will be making use of his graphic designing skills to sketch maps for us to utilize in our program.
- Developed our logo and came up with the project idea
- Will be designing webpage imagery for developing the site



Programming languages



PROJECT COMPONENTS

- **JavaScript, HTML, CSS**
- **Java**
- **Spring framework**
- **Database (Unsure if needed)**
- **IDE's: Visual Studio Code**

LANGUAGE ROLES

<ul style="list-style-type: none">• As for Huff Duff to be a useful application for students we had to make it available on most devices, thus we decided to make it web based thereby making it easily accessible for students. As aforementioned we are going to make use of HTML, CSS and JavaScript for web designing and developing. HTML will also help us in getting input from the user for our Java program. CSS language will be used to design our HTML document to make our webpage more appealing. JavaScript is used to design webpage behavior which will allow us to make our site more interactive and easier to use.	HTML, CSS & JavaScript
<ul style="list-style-type: none">• For backend coding we will be utilizing Java for finding the best suited path to destination. We are also going to save some basic map data in our Java code (encoded form) for ease of access and deducing the need for database.	Java
<ul style="list-style-type: none">• Spring is a free service used to host web pages locally on local ports helping us to display our project in a better way.	Spring Framework



PROJECT GOALS

- **Efficient use of time**
- **Improved campus navigation**
- **Accessibility**
- **Better planning**
- **Reduced stress:**

GOAL OUTLINE

1

Efficient use of time:

The program can help students find the quickest route to their classes, maximizing their time on campus and reducing the time spent walking or waiting for transportation.

2

Improved campus navigation:

The program can provide students with an interactive map of the university, including the locations of buildings, classrooms, and parking areas, making it easier for them to navigate the campus.

3

Accessibility:

The program can help students with disabilities or mobility issues find the most accessible routes on campus, making it easier for them to attend classes and participate in university activities.

4

Better planning:

The program can also help students plan their schedules more effectively, taking into account the locations of their classes and other activities, and ensuring that they have sufficient time to travel between classes

5

Reduced stress:

The program can help students plan their route to class in advance, reducing the stress and uncertainty associated with navigating a large and complex campus.

