Web Application for Evaluating Restaurants (WAFER)

Team Beep Boop

Software Engineering, CSCE 3444, Fall 2020

Nabin Bhatta

Cayden Chancey

Matthew Curtin

Tyler Parks

Saiman Sigdel

Project Overview

System and Software Summary

Our group's software, or more accurately -- web application, will be an online reviewing/rating platform where users will be able to search for nearby restaurants. Users will be able to write and read reviews of these places, rate them based on a "out of 10" rating system, and leave and answer questions about those places.

Our website will assist users by showing them various restaurants near them, which can be filtered by distance, rating, and type of food. This functionality is based on the user's location, using the computer's -- or phone's -- location services.

Environments

This project will be programmed in the form of a website, so our choice of operating system is irrelevant. The environments our group plans on using for this project is as follows.

- Visual Studio Code/2019
    - This integrated development environment, IDE, will likely be the main program for our creating, editing, reviewing, and testing of code.

- Atom
    - Atom is a modern text editor that some of our group members will be using to make small changes, commits, and comments on code that has been committed.

- PuTTY and WINSCP
    - A classic text editor/terminal and file management system hosted on the UNT CSE servers.

- GitHub
    - This online configuration management system will be where our group submits and commits all code that deals with the project. All code should be committed to a member's branch, then to a master branch where the final project will be stored.

- Netlify
    - A website-hosting service that will allow our group to host a website.

Languages

The coding languages our group plans to use for this project are web-based and are fairly new to most group members; however, we feel that this will not be a problem once we all have a grasp on these languages. They are as follows.

- JavaScript and/or C++
    - JavaScript, JS, and C++ are commonly used in web-based projects as it allows for user interaction on websites compared to HTML and CSS, which focus more on website structure and functionality.

- HTML
    - Our group will use HTML to build and design the website from scratch. This programming language will give our website most of its functionality. Commonly known as the “back-end” of website programming.

- CSS
    - CSS will allow our group to customize the look and flow of our website. Commonly known as the “front-end” of website programming.

Project Plan

Cost

There are several items that we will need to use to complete this project. We have chosen many of these to be as cost-effective as possible.

- Domain Name
    - A .com domain name on average goes for about $10.00. We can get one for free but it will not be a quality domain name.

- Web Hosting
    - We will host our website on Netlify, which can host websites for $0.00.

- Database Hosting
    - Netflify can save HTML forms to your account, so I think it will also be $0.00.

- Coding Environment
    - We will use Visual Studio Code which is open source and free.

- HTML, CSS, Javascript tutorials
    - Youtube has multiple tutorials for building websites that are free.

- UI Designer
    - We will use free and open source visual designing software.

- Javascript libraries and APIs
    - We are planning on using location based functionality. There are libraries for Javascript to connect to GPS. We hope that this is free, but it is a potential cost.

Based on what we know now, we estimate the cost of our project to be $10.00. This cost may increase or decrease depending on how much libraries cost and what domain name we decide to go with.

Effort

The beginning of the project will consist of setting up a “Hello World” website, designing UI, and implementing the HTML and CSS into the project. This will take an estimated 21 days.

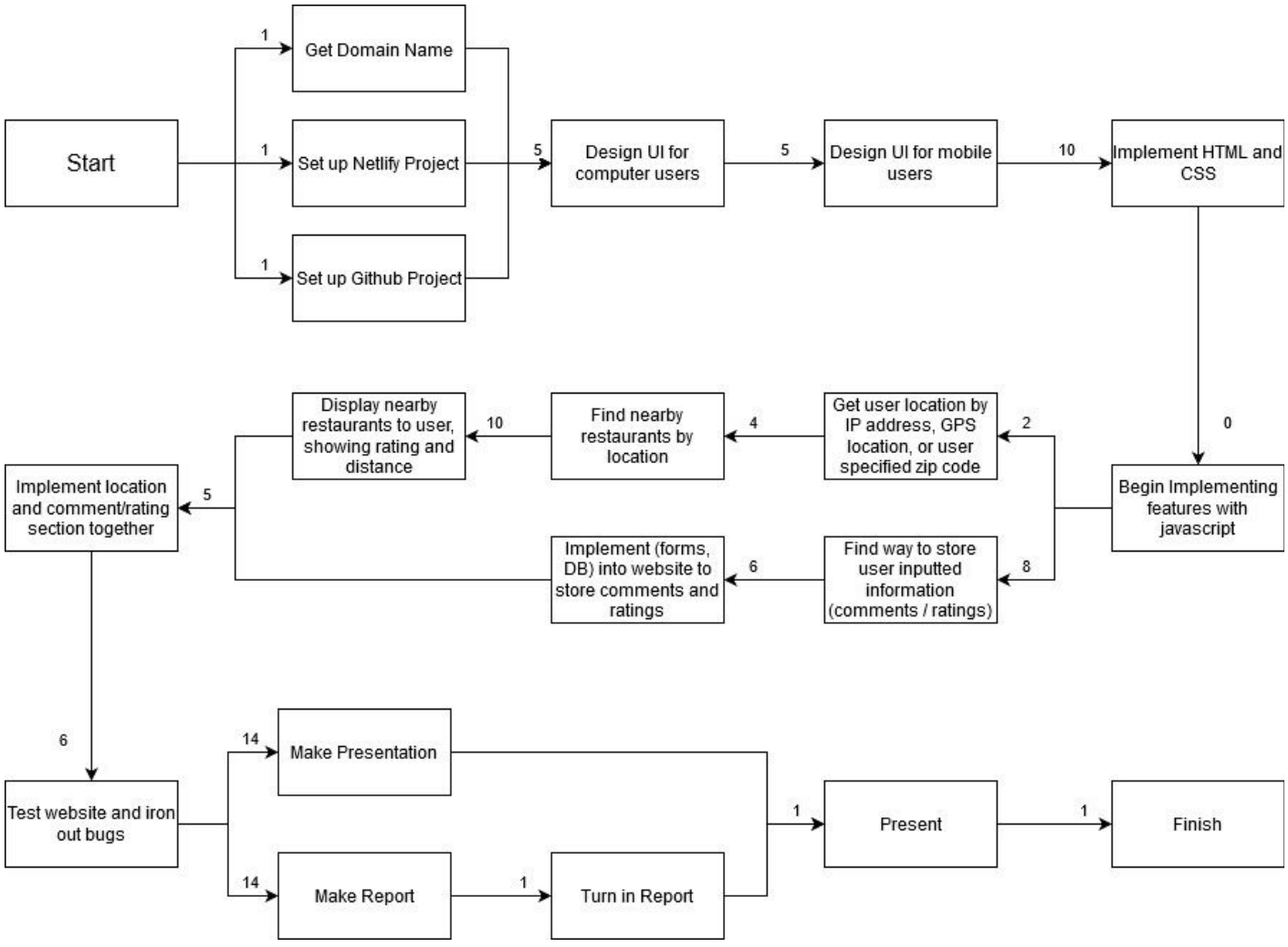
Implementing the Javascript functionality consists of getting the user’s location, finding restaurants near the user, displaying the restaurants, saving comments and reviews to a database, and users being able to make comments and reviews. This will take an estimated 21 days.

We will then test the application. This will include stress testing and cold tests where we see how a user interacts with the website. This will take an estimated 6 days.

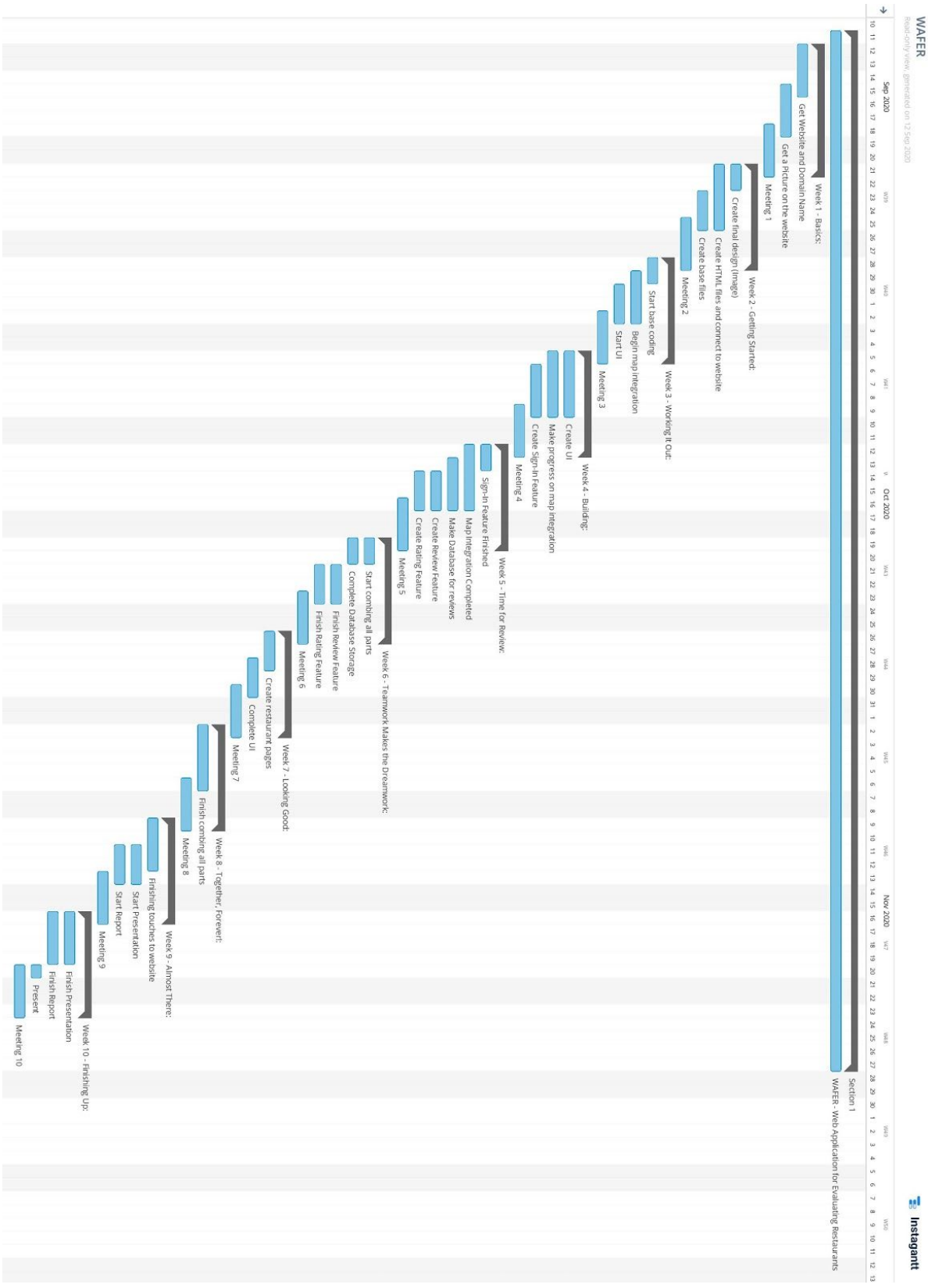
The final part of the project consists of making a report, a presentation, presenting and turning them in. This will take an estimated 17 days.

In total, we estimate this project to take about 65 days to complete. This is about two months, so this will be feasible to accomplish within the semester. We have made PERT and Gantt charts to show this below.

Project Flow



Project Schedule/Timeline



Risk Analysis

Generic Risk

Possible Risks	**Possible Solution**
Personal Problem	Informing the team member as soon as possible so that other members can accommodate to make everything on time.
Developing wrong program	To reduce the possibility, everyone is recommended to report their work; making and sharing charts about the to-do list.
Infected with Corona	Depending upon the condition, one's work is either reduced or shared among other team members.

Project Specific Risks

Possible Risks	**Possible Solution**
Failing to meet the deadline	Discuss the problem with the team member before the deadline.
Didn't work as expected	Set up a team meeting to solve or replace the functionality on the website.
System crash/lost laptop	Send the work to another team member or store in the cloud.
Difficulty finding solution	Collaborate with the team members to solve the problem.

Team Members and Roles

Nabin Bhatta [Mobile User Interface]

- Responsible for designing the User Interface for mobile users.
- Responsible for styling and making the UI.
- Make sure the UI functions smoothly, without any issues.

Cayden Chancey [User Interface]

- Responsible for designing the UI for PC users.
- Responsible for making the UI.
- Make sure the UI is working as intended.

Matthew Curtin [Web Host]

- Host the web application.
- Get the domain name.
- Host the database online.

Tyler Parks [Front-End]

- Responsible for the “look” of the application.
- Work with team members to implement the UI design.
- Collect and Store user inputs.

Saiman Sigdel [Back-End]

- Responsible for collecting required user data, mainly, location.
- Design and implement a comment/rating system.
- Manage database.