### **Project Plan (Updated Version): Indy Student Life**

#### **Green Team**

Team Members: Emmanuel Akinseye, Ann Chen, Ryan Engelken,

Maurice Farr, and Harjot Singh

Department of IT, Ivy Tech Community College

Dr. Carver

SDEV-265

May 7, 2025

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## **Project Plan**

Our project, Indy Student Life, was aimed to establish an interactive web platform for college and university students in Indianapolis, Indiana. For more information, proceed to the "Introduction" section.

## **Introduction**

Indy Student Life is an online platform designed to help college students in Indianapolis, IN, discover affordable food options within a 2.5-mile radius of their campus and find suitable study locations on campus. We utilized reliable web technologies and efficient backend systems to create a seamless experience for users and restaurant partners, ensuring both security and scalability.

The project faced challenges related to time and resources, as we needed to complete the website within an 8-week period, with a deadline of May 8, 2025. While we did not have a real budget for this initiative, having a fixed budget would have allowed for better allocation of funds across development, testing, and deployment. Additionally, our small team size necessitated effective collaboration and task management.

# **Project Organization**

| Position                               | Names             | Description   |
|--|-------------------|---|
| Technical Writer/<br>Support Developer | Ann Chen          | She concentrated on writing and documentation tasks while also contributing to the website's coding.  |
| Technical Writer/Support Developer     | Emmanuel Akinseye | He wrote code for our website and tested it to ensure proper functionality. He also contributed to the project by completing various writing tasks.                         |
| Team Lead/<br>Programmer               | Harjot Singh      | As the appointed leader of Team Green, he developed the website project using HTML, CSS, and JavaScript.  |
| Organizer/Technical<br>Writer          | Maurice Farr      | He oversaw the team's completion of project tasks while managing all related materials. In addition, he played a key role in writing and documenting important assignments. |
| Tester/Programmer                      | Ryan Engelken     | He contributed to the coding of the website, ensured its smooth operation, and eliminated any design flaws.   |

# **Risk Analysis**

| Risk   | Description  | Risk Planning  | Risk Priority    |
|--|--|--|------------------|
| Unable to Deliver on Time<br>(Schedule Risk)             | There was a possibility that the project could be delayed due to unforeseen issues, which meant it might not be completed on schedule.   | The deadline was clear, and we held several meetings each week. We also stayed in touch outside of those meetings.                     | <u>High Risk</u> |
| Debugging Not<br>Completed<br>( <b>Operational Risk)</b> | Various issues, such as mistakes, equipment failures, or staff-related problems, all of which can negatively impact operations and lead to losses.   | We tested our website during updates and the addition of new features, which helped us identify any bugs more easily if they occurred. | <u>High Risk</u> |
| Project Idea Changes<br>(Scope Creep Risk)               | Allowing this type of risk can lead to the project not being aligned with the initial plan due to new unexpected features or requirements that were not identified in the beginning stages of the project. | We were set on our idea. We had weighed our options on different project ideas.  | Moderate Risk    |

| Lack of Expertise (Skills Resource Risk)    | The possibility that a project might lack the right expertise, which could cause delays or low-quality results.  | Our group has discussed our skills assessment in the early stages to ensure all necessary expertise is available. In addition, we plan on establishing clear roles and responsibilities for each group member. | Moderate Risk        |
|---|--|--|----------------------|
| Budget Expenses<br>(Cost Risk)              | Given the nature of<br>the project, which<br>resembles a<br>standard web<br>development site,<br>the risk of incurring<br>excessive costs is<br>minimal. | To reduce cost risks, our team developed a budget forecast to ensure accurate tracking of expenses.  | <u>Moderate Risk</u> |
| Poor Performance<br>(Performance Risk)      | Performance<br>testing was initially<br>carried out using<br>loaded tools to<br>optimize the system<br>for effective scaling.                            | Performance<br>testing was initially<br>carried out using<br>loaded tools to<br>optimize the system<br>for effective scaling.  | <u>Low Risk</u>      |
| Cloud Software Failure<br>(Technology Risk) | The chosen software for building the website may not have performed as anticipated or might no longer be necessary.                                      | Google Drive and GitHub have been secured. If there were problems with Google Drive or GitHub, we still would have the files stored on our personal devices.   | <u>Low Risk</u>      |

| Team Members Not Available (Communication Risk) | Our group has added each other's Discord accounts and phone numbers and meets via Zoom, so therefore there will be little risk of a lack of communication. | We exchanged our Discord accounts and phone numbers and connected through Zoom. | <u>Low Risk</u> |
|---|--|---|-----------------|
|---|--|---|-----------------|

## **Hardware and Software Requirements**

- Hardware Requirements: The hardware for this project consisted of our personal computers (PCs) or laptops, which were employed to complete the necessary assignments and project tasks.
- Software Requirements: On the software side, the web application was developed using HTML, CSS, and JavaScript as the main programming languages, with SQLite3 for efficient data storage and management. The team utilized Visual Studio Code as our primary IDE and DB Browser for SQLite to manage the database. For the interactive map feature, we incorporated Leaflet.js, an open-source JavaScript library, using base map data from OpenStreetMap, which provides free geographic information. Version control and collaboration were handled through Git and GitHub, while team communication was supported by Discord for messaging, Trello for task management, and Google Docs for collaborative documentation.

### **Work Breakdown**

#### 1. User Registration and Authentication

- Activity 1.1: Design the registration and authentication (front-end and back-end).
- Activity 1.2: Implement registration and authentication functionality.
- Activity 1.3: Test user registration, login, and authentication flow.

#### 2. Location

- Activity 2.1: Implement a map for the state of Indiana.
- Activity 2.2: Verify the map's visibility by inputting a zip code.

#### 3. Restaurant Menu Browsing

- Activity 2.1: Implement front-end and back-end functionality to fetch and display menus.
- Activity 2.2: Test menu browsing, including search functionality.

#### 4. Order Placement

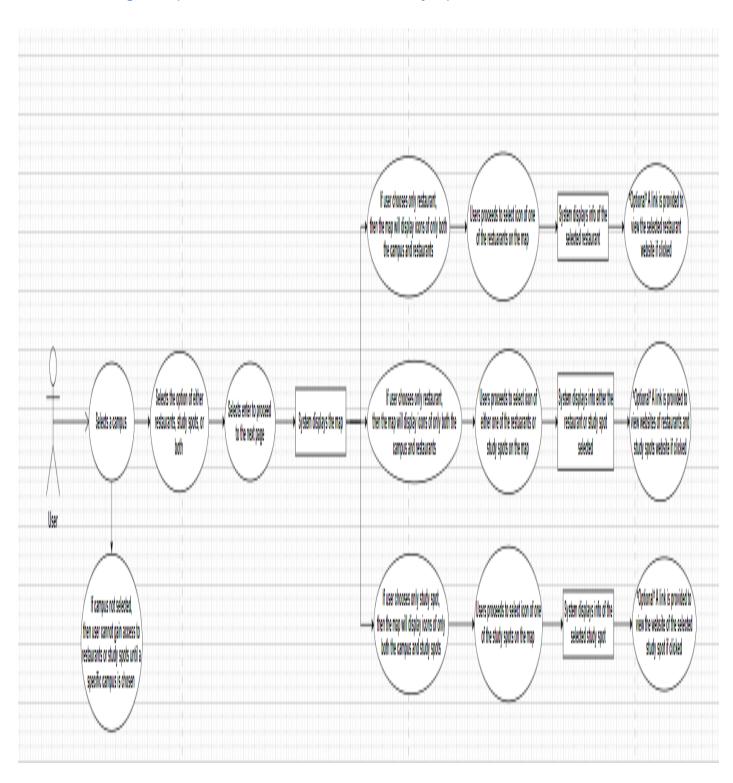
- Activity 4.1: Design the order placement page.
- Activity 4.2: Implement order placement functionality.
- Activity 4.3: Test order placement.

#### 5. Final Integration and Testing

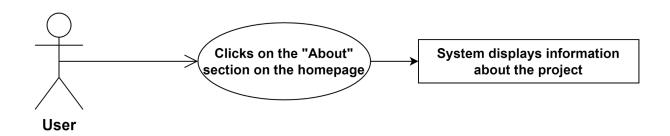
- Activity 5.1: Integrate all modules into the final version.
- Activity 5.2: Conduct comprehensive system testing, covering user scenarios. If any problems arise during the testing process, we will address and resolve them as needed.

## **Process Flow Diagrams**

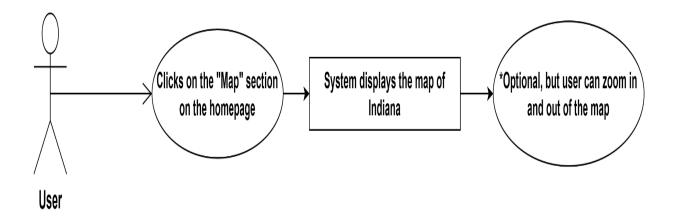
Selecting Campus to View Restaurants & Study Spots:



### • Viewing the "About" Section:



### • Viewing the Map:



# **Project Schedule**

| Task                          | Effort (persons) | Duration<br>(weeks) | Dependencies |
|-------------------------------|------------------|---------------------|--------------|
| Planning                      | 5                | 1                   |              |
| Implementation                | 1                | 1                   | T1           |
| Coding: Index page            | 1                | 1                   | T2           |
| Coding: Images                | 1                | 1                   | T2           |
| Coding:<br>Location/Your Area | 1                | 1                   | Т3           |
| Coding: Menu                  | 2                | 4                   | T4-T7        |
| Coding:<br>CSS/Design         | 2                | 4                   | T4-T7        |
| Debugging/<br>Troubleshooting | 5                | 3                   | T4-T10       |
| Maintenance                   | 2                | 8                   | T12          |

## **Monitoring and Reporting Mechanisms**

Here are the following tools that will be used for communication, collaboration, and scheduling.

- GitHub: We used this platform for version control and code collaboration, providing code quality assurance and history tracking.
- Discord: This social platform facilitated our communication and allowed us to share our work amongst each other.
- Group Text Messaging: We employed this form of communication to keep everyone updated and aligned on project developments.
- Zoom: We utilized this communication platform for virtual meetings and collaborative discussions regarding our work.
- Google Drive: Google Drive was our designated tool for document sharing and collaboration.
- Trello: This project management platform facilitated task management and team collaboration while also helping to organize meetings and set deadlines for our project.

# <u>Appendix</u>

| Task                     | Description   | Time(Weeks) | Dependencies |
|--------------------------|---|-------------|--------------|
| Planning                 | Planning the project and the steps it will take to successfully complete our project. | 1           | None         |
| Implementation           | Discuss how we are going to implement our plan that we made.                          | 1           | T1           |
| Coding: Images           | Downloading all the images that are needed for our website.                           | 1           | T2           |
| Coding: Index Page       | Making the first page you see when you load up our website.                           | 1           | T2           |
| Coding: Location         | Making the locations in which you are able to search near.                            | 1           | Т3           |
| Coding: Map              | Making a map that will show food places near your university.                         | 4           | T4-T7        |
| Coding: Menu             | Making it so their<br>menu is able to be<br>provided.                                 | 4           | T4-T7        |
| Coding:<br>Cart/Checkout | Making the ability to add items to your cart.   | 4           | T4-T7        |

| Coding:<br>CSS/Design         | Styling and designing the webpage. This will be done as we are doing each individual web page. | 4 | Т2-Т7  |
|-------------------------------|--|---|--------|
| Debugging/<br>Troubleshooting | Fix any issues with the website not working or code not properly functioning.                  | 3 | T4-T10 |
| Maintenance                   | Making updates to make sure our website is up to date with current coding standards.           | 8 | T12    |