

# Tackling Global Grand Challenges Through the Collaboration of International Teams and Technology



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## Introduction

I worked with an international team to create a tool that helps mitigate the grand challenge of global food and water insecurity. I took part in World Learning’s NextGen Coders Network 10-week virtual “Hackathon”. My team constructed a website to provide education and opportunities of support for mitigating resource insecurities.

## Site Information:

Name of Site: CPSS 240: NextGen Coders Network

Address: UMD provided virtual course

Your supervisor: Matthew Aruch

The site mission: Provide students an opportunity to develop and apply their technical skills through critical design, application, and reflection of an ongoing cross-cultural STEM initiative.

The particular goals of the site you were at: Bring students and young professionals, from an array of countries, for a virtual exchange to learn coding and to collaborate on a website or application that tackles a grand challenge

## My Activities:

- Completed Google Jamboards to brainstorm and narrow on a specific topic/grand challenge.
- Discussed the goal and purpose of the website as a group.
- Designed the layout of the website, the prototype, using Figma.(Fig. 2)
- Researched the causes of food insecurity, and its affect globally.
- Uploaded html coding and images into GitHub to be applied to the website.
- Collaborated with my teammates with progress and work that needed to be done.

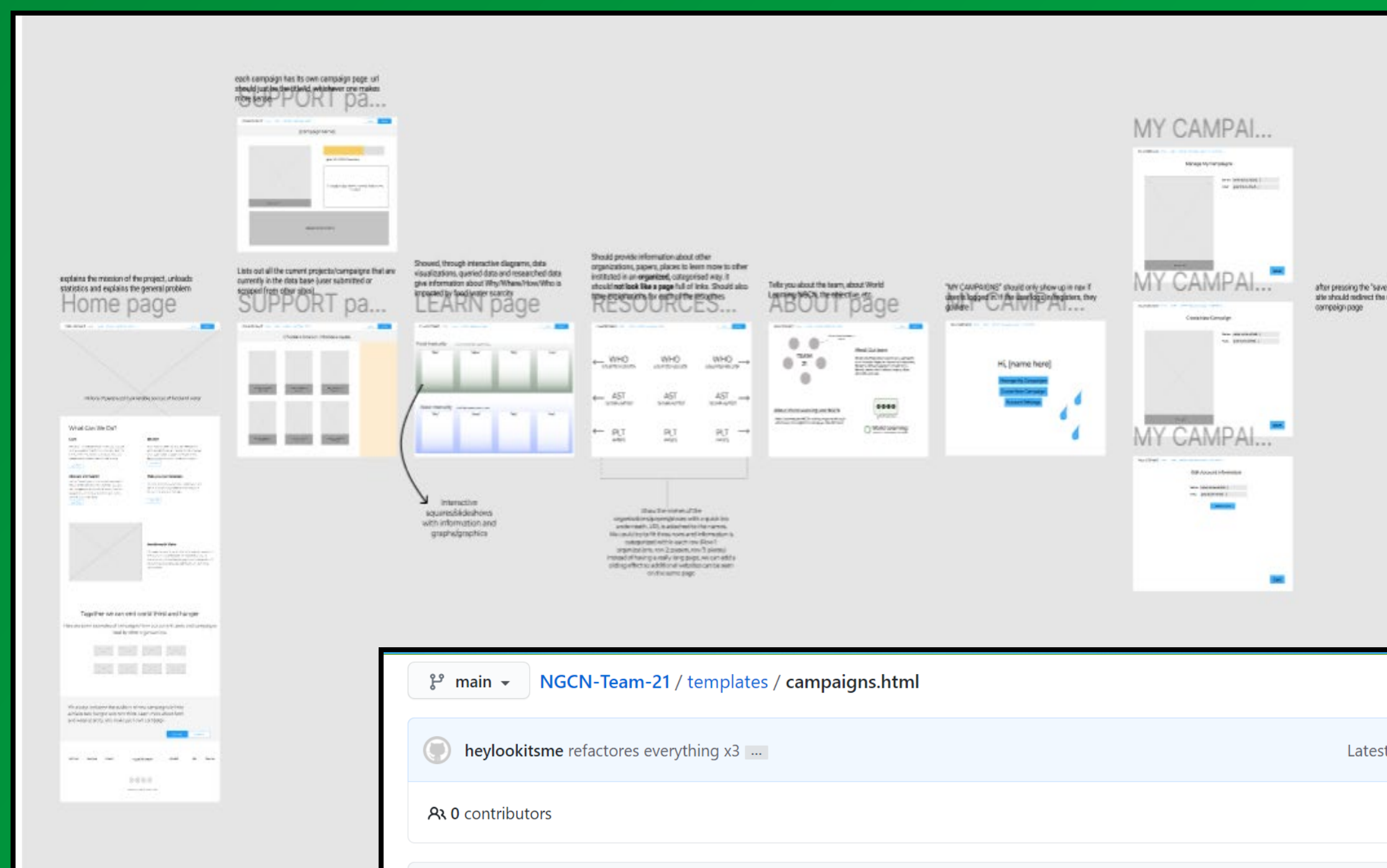
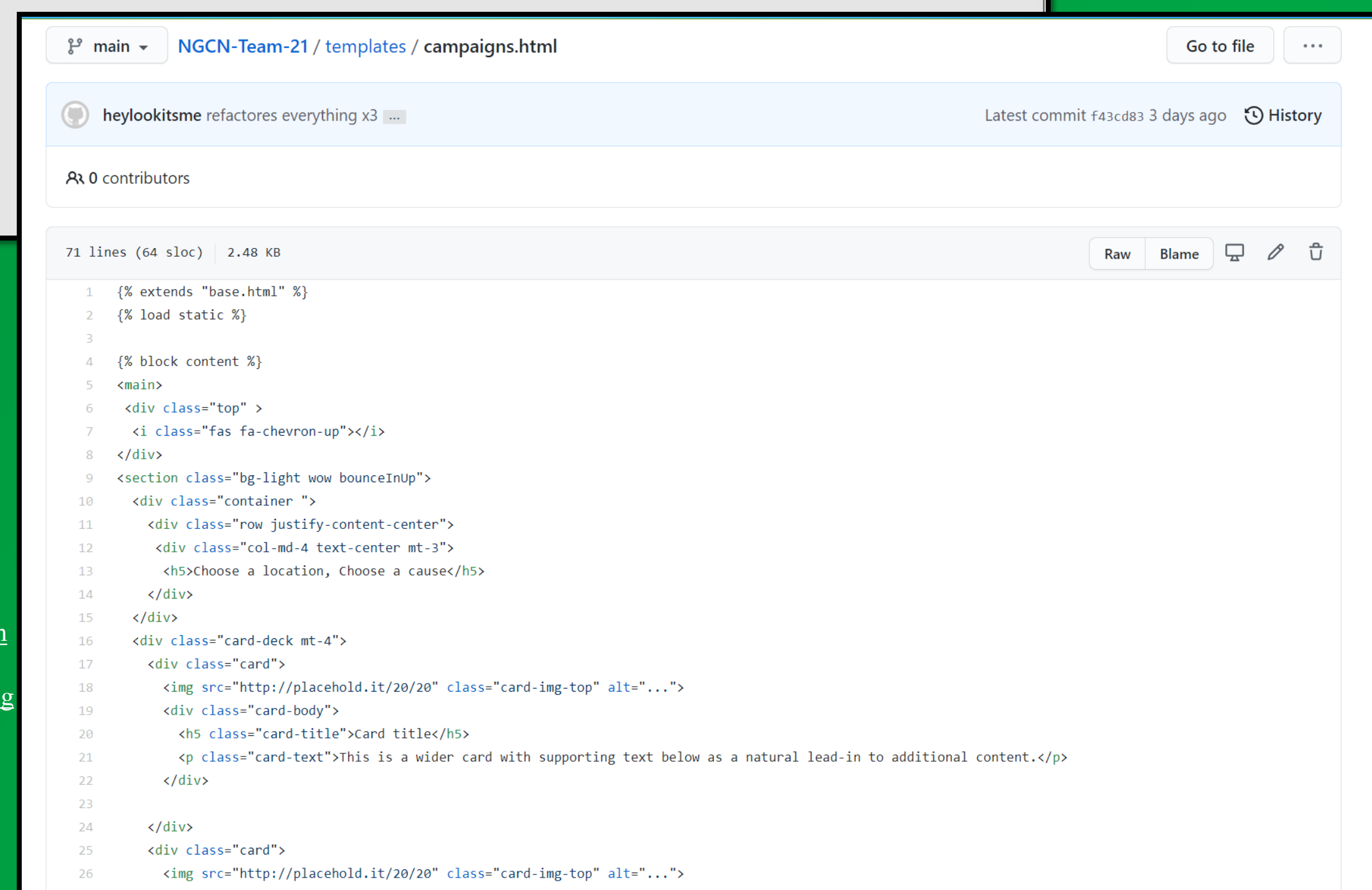


Fig 1: Image of the Figma page that was created to help the team get a understanding of how our website’s layout (<https://www.figma.com/file/tzdwUADdVulqYN4GJpbv3/NGCN-Team-21-Project?node-id=0%3A1>)

Fig 2: Image of the HTML that was created, in GitHub, for the campaign page of our website. (<https://github.com/heylookitsme/NGCN-Team-21/blob/main/templates/campaigns.html>)



## Impact/Discussion:

This project highlighted two grand challenges, food and water insecurity, by providing research/information for the general audience to learn about said issues. Additionally, it promoted current organizations and campaigns, in a GoFundMe style, to increase awareness. It also gives the general public an option of creating their own campaign, which can be used to increase awareness of issues in a country that might not be getting enough attention.

This program, both the CPSS course and NGCN program, were extremely informative regarding grand challenges and the current research that is being conducted to try to mitigate these challenges on a global scale. The website I worked on provides data on the GHI (Global Hunger Index), and research based on the questions of “Who? What? Where? How? and Why?” regarding food insecurity. About 1.9 billion people are moderately or severely food insecure, and that most of that population is within the Sub-Saharan African and South Asian countries.

## Future Work:

The timeframe for this program and project were relatively short in comparison to the amount of work that needed to be done. The focus for future work would be to fully complete the website and ensure that it is fully functional on all pages and provide adequate information about food and water insecurity.

## Issues Confronting Site:

There were some issues that arose during this program. The prominent issue was communication between team members that were in a different time zone, specifically Palestine and Iraq time zones which is 7 hours ahead of EST. Another issue is the use of Indiana University Purdue University’s canvas website because there were different assignments that needed to be completed on the UMD and IU canvas sites.

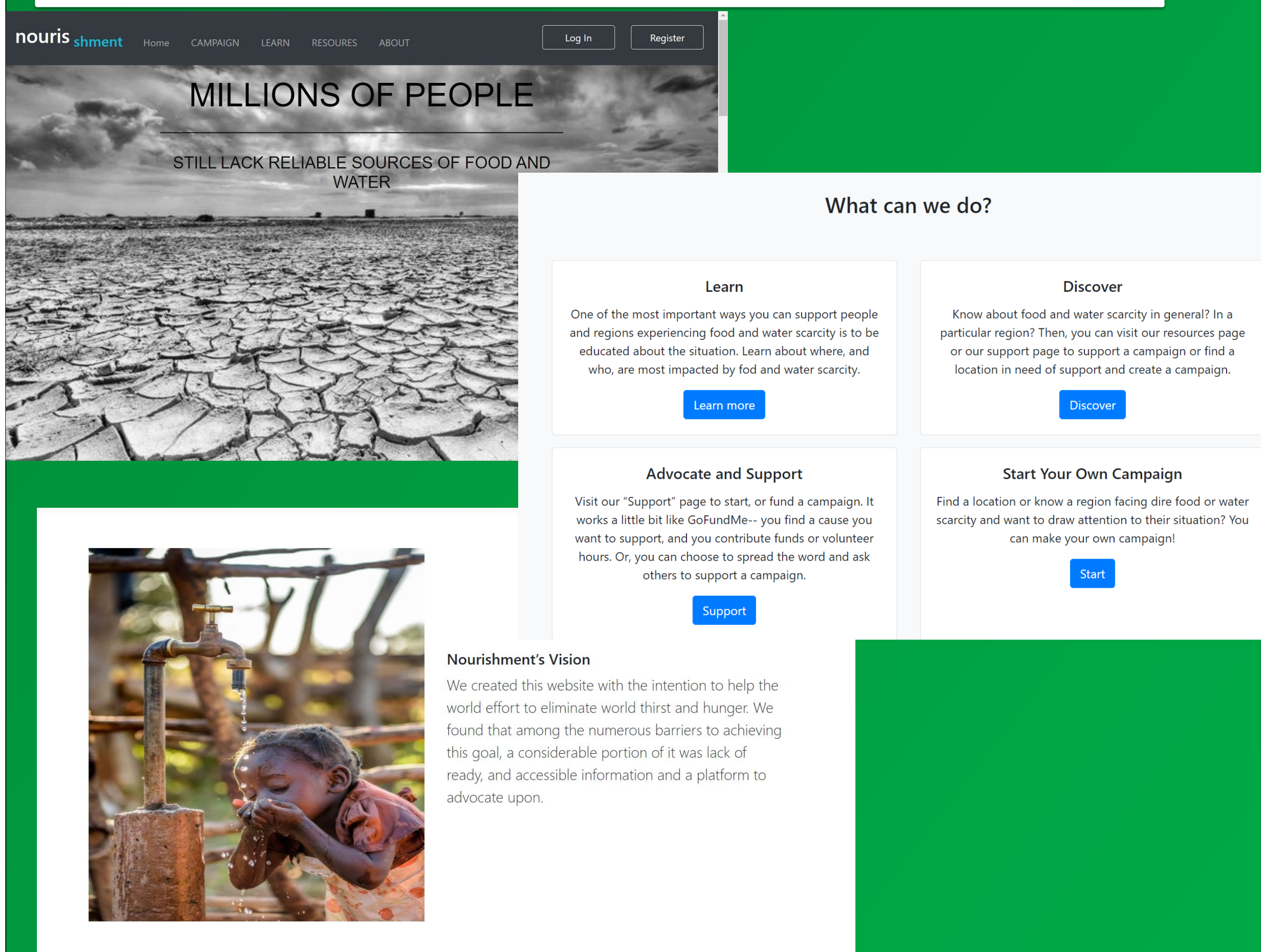


Fig 3, 4 & 5 (from top, right, bottom): Images that displays the home page of our website, which is titled nourishment. In Fig 4., there are brief paragraphs about each page on the website with buttons linking to them.

## Acknowledgments:

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