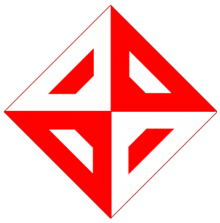

Software Requirements Specification for

Afet Bilgi

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April 22, 2023

Contents

1 Introduction

This document is the Software Requirements Specification for the **Afet Bilgi** project, developed by a group of METU students to verify and deliver important information to fight against February 6, 2023, Pazarcık Earthquake.

1.1 Purpose of the System

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1.2 Scope

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1.3 System Overview

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1.3.1 System Perspective

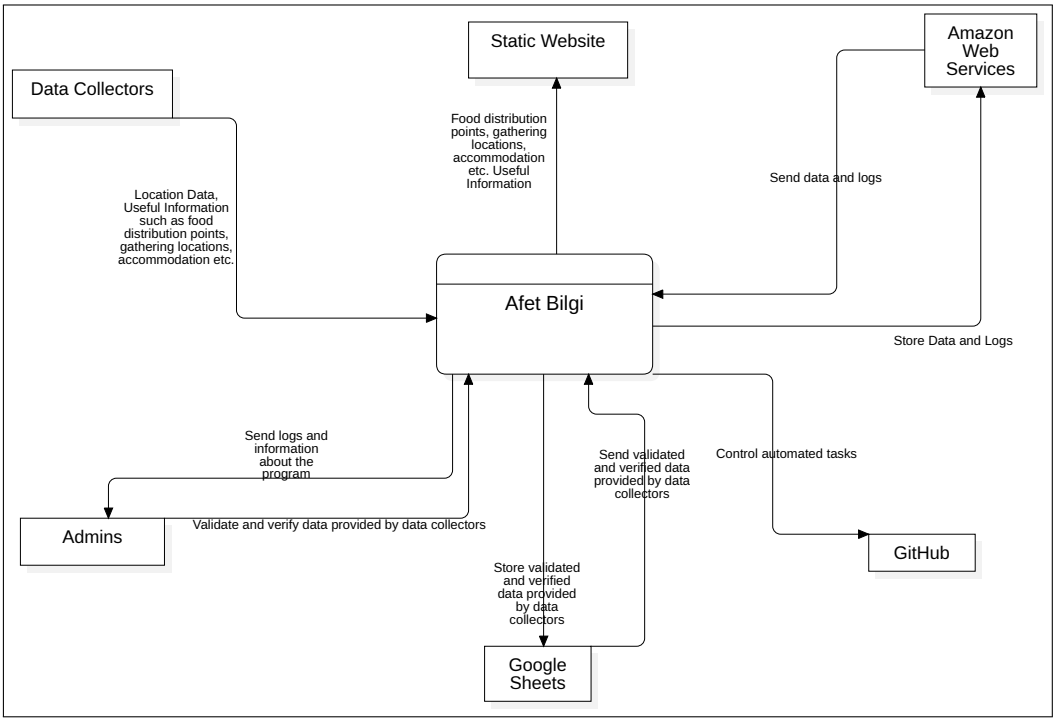

Figure 1: Context Diagram

The `afetbilgi.com` product is not an element of a larger system. The project is split into two main parts. The first part is the front-end of the website. The second part is the cloud services that is used to store and process the data. The front-end is a web application that is developed using TypeScript and the ReactJS framework. The front-end uses packages like MUI and is hosted on the static website `afetbilgi.com`. For the cloud services, the project uses Amazon Web Services (AWS) and the serverless framework. Alongside AWS, GitHub Actions is used for continuous integration and continuous deployment (CI/CD). The cloud services process the data and store it in a database. The data comes from individuals who enter and/or validate the data. The data is collected in Google Sheets and then processed by the cloud services. The cloud services are hosted on AWS. GitHub actions are also responsible for generating PDF files including information about affected areas, from the data in the database.

The PDF files are then stored in the cloud services and can be accessed by the front-end.

1.3.2 System Functions

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1.3.3 Stakeholder Characteristics

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1.3.4 Limitations

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1.4 Definitions

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2 References

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3 Specific Requirements

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3.1 External Interfaces

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3.2 Functions

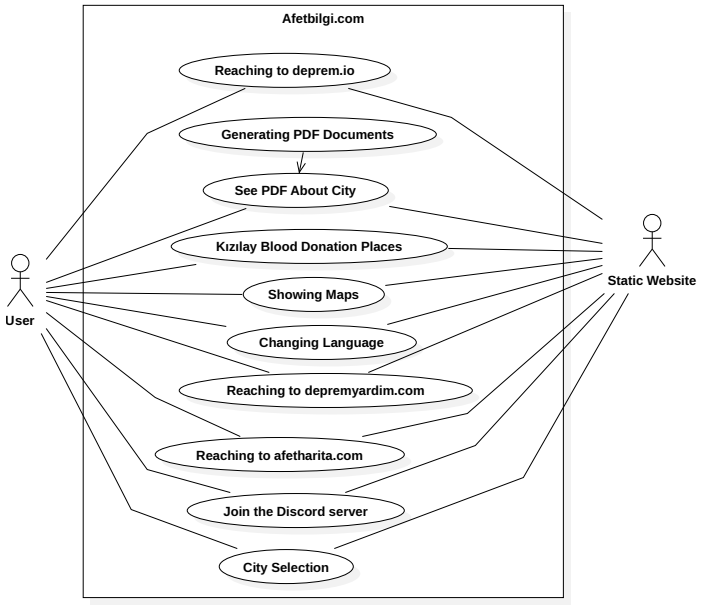

Figure 2: Use Case Diagram

Use case name	See PDF About a City
Actors	User, Static Website, PDF Viewer
Description	If a user wants to see the PDF document containing information about a city, the city selection dialog is shown, then the desired is picked on the dialog.
Data	PDF file about the city
Preconditions	The PDF for the city file must be refreshed previously.
Stimulus	User clicks on the "PDF" button and picks a city
Basic flow	Step 1: User clicks the "PDF" button Step 2: The pop-up dialog is shown Step 3: User picks the desired city on the city selection dialog
Alternative flow	-
Exception flow	-
Post conditions	User is redirected to the PDF viewer

Table 1: See PDF About City Function

Table 2: Kızılay Blood Donation Places Function

Use case name	Kızılay Blood Donation Places
Actors	User, Static Website, Kızılay Website
Description	The user wants to see the blood donation locations.
Data	Blood Donation Locations
Preconditions	-
Stimulus	User clicks on the "Kızılay Blood Donation Places" button
Basic flow	Step 1: User clicks the "Kızılay Blood Donation Places" button
Alternative flow	-
Exception flow	-
Post conditions	User is redirected to the Kızılay website

Use case name	Generating PDF Documents
Actors	GitHub Actions, automation code, Data Providers & Validators
Description	The PDF files are generated by the automated code running on GitHub Actions. Those PDF files include information about evacuation points, food distribution centers, pharmacies, gas stations and more, based on the districts of the given city. All the information comes from Google Sheets, which holds the data coming from voluntary individuals.
Data	Open pharmacies, evacuation points, food distribution centers, gas stations, acommodation places, veterinarians.
Preconditions	The information should be on Google Sheets prior to generation.
Stimulus	GitHub actions runs this task periodically.
Basic flow	Step 1: The data from sheets are fetched Step 2: The PDF file is generated using the Python script Step 3: The file is stored in AWS Cloud.
Alternative flow	-
Exception flow	-
Post conditions	The updated PDF file is stored on the cloud, and is ready to be seen on the front-end.

Table 3: Generating PDF Documents Function

Use case name	Showing Maps
Actors	Leaflet, Data Providers & Validators
Description	The map is generated by the map provider Leaflet. The map includes information about donation centers, temporary acommodation places, food distribution places, pharmacies, gas stations and more, and where they are on the map. All the information comes from from voluntary individuals.
Data	Open pharmacies, evacuation points, food distribution centers, gas stations, acommodation places, veterinarians.
Preconditions	The information should be available on the sources prior to generation.
Stimulus	User clicks the "map" button on the page.
Basic flow	Step 1: The user clicks the "map" button Step 2: The user is redirected to maps.afebilgi.com Step 3: The map is shown.
Alternative flow	Step 1: The user opens maps.afetbilgi.com.
Exception flow	-
Post conditions	-

Table 4: Showing Maps Function

Use case name	Changing Language
Actors	User, Static Website
Description	There are millions of people living in the affected ares belonging to different ethnicities and background, and although the main language of the site is Turkish, support for different languages is a must. The project comes in four different languages which the users can choose from: Turkish, English, Kurdish and Arabic.
Data	Visual messages
Preconditions	The translations are done previously.
Stimulus	User clicks the language button on the site
Basic flow	Step 1: The user clicks the language button Step 2: A dropdown menu for language selection is shown Step 3: The desired language is selected
Alternative flow	-
Exception flow	-
Post conditions	The site is now in the desired language.

Table 5: Changing Language Function

Use case name	Reaching to depremyardim.com
Actors	User, Static Website
Description	The user wants to help the people affected by the earthquake.
Data	URL of the website.
Preconditions	-
Stimulus	User clicks the related button.
Basic flow	Step 1: The user hovers over the button. Step 2: A description about the website is shown. Step 3: The user clicks the button. Step 4: The user is redirected to depremyardim.com.
Alternative flow	-
Exception flow	-
Post conditions	The user is redirected to depremyardim.com.

Table 6: Reaching to depremyardim.com Function

Use case name	Reaching to afetharita.com
Actors	User, Static Website
Description	Afetharita.com is a website that provides map based information about the earthquake. The map includes information about the earthquake, the aftershocks, the shelters, the hospitals, the schools and more.
Data	URL of the website.
Preconditions	-
Stimulus	User clicks the related button.
Basic flow	Step 1: The user hovers over the button. Step 2: A description about the website is shown. Step 3: The user clicks the button. Step 4: The user is redirected to afetharita.com.
Alternative flow	-
Exception flow	-
Post conditions	The user is redirected to afetharita.com.

Table 7: Reaching to afetharita.com Function

Use case name	Reaching to deprem.io
Actors	User, Static Website
Description	Deprem.io is a website that users can use to help earthquake victims.
Data	URL of the website.
Preconditions	-
Stimulus	User clicks the related button.
Basic flow	Step 1: The user hovers over the button. Step 2: A description about the website is shown. Step 3: The user clicks the button. Step 4: The user is redirected to deprem.io.
Alternative flow	-
Exception flow	-
Post conditions	The user is redirected to deprem.io.

Table 8: Reaching to deprem.io Function

Use case name	Join the Discord server
Actors	User, Static Website
Description	The Discord server is where the developers of the project develop their projects and communicate. User can join the Discord server.
Data	Link for the Discord server.
Preconditions	-
Stimulus	User clicks the button.
Basic flow	Step 1: The user hovers over the button. Step 2: A description about the Discord server is shown. Step 3: The user clicks the button. Step 4: The user is redirected to join the Discord server.
Alternative flow	-
Exception flow	-
Post conditions	The user can join the Discord server after redirected.

Table 9: Join the Discord server Function

Use case name	City Selection
Actors	User, Static Website
Description	Users may need information about only one city. In order to eliminate unnecessary information about other cities and focus on the desired city could save time for users.
Data	Information about the given city
Preconditions	Information should be available beforehand.
Stimulus	User interacts with the dropdown menu.
Basic flow	Step 1: The user clicks "Select a city" button. Step 2: A dropdown menu is shown. Step 3: The user selects the desired city. Step 4: The information is filtered for the selected city.
Alternative flow	-
Exception flow	-
Post conditions	All the information shown on the home page is about the selected city.

Table 10: City Selection Function

3.3 Usability Requirements

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3.4 Performance Requirements

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3.5 Logical Database Requirements

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3.6 Design Constraints

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3.7 System Attributes

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3.8 Supporting Information

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4 Suggestions for Future Work

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4.1 System Perspective

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