



# Software Requirements Specification for **Afet Bilgi**

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# **1 Introduction**

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## **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

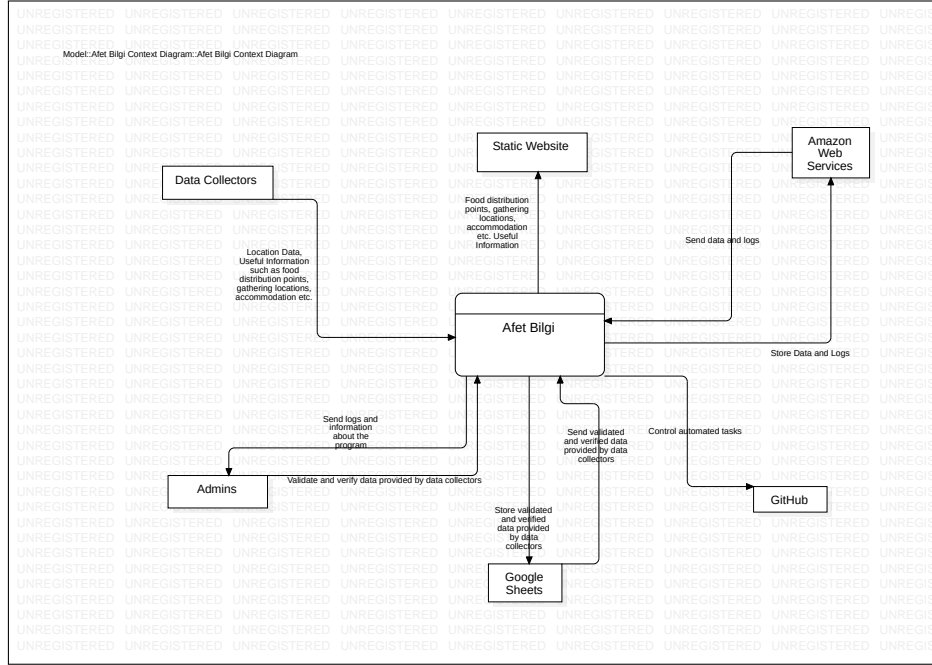


Figure 1: Context Diagram

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

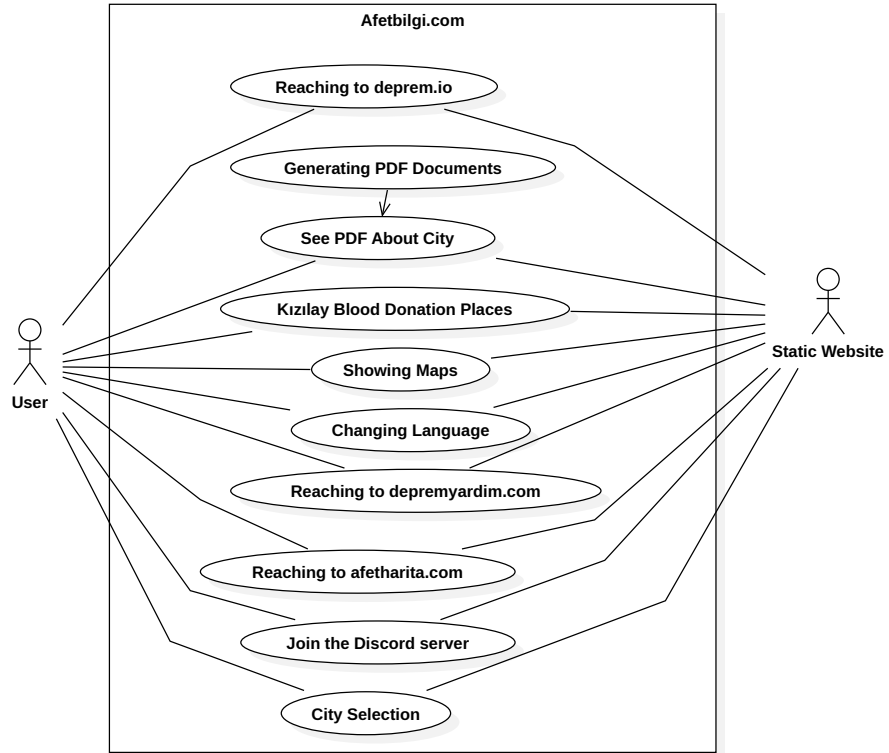


Figure 2: Use Case Diagram

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

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

**Table 2:** Kızılay Blood Donation Places Function

<b>Use case name</b>	Generating PDF Documents
<b>Actors</b>	GitHub Actions, automation code, Data Providers & Validators
<b>Description</b>	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.
<b>Data</b>	Open pharmacies, evacuation points, food distribution centers, gas stations, accommodation places, veterinarians.
<b>Preconditions</b>	The information should be on Google Sheets prior to generation.
<b>Stimulus</b>	GitHub actions runs this task periodically.
<b>Basic flow</b>	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.
<b>Alternative flow</b>	-
<b>Exception flow</b>	-
<b>Post conditions</b>	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

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

**Table 4:** Showing Maps Function



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

**Table 5:** Changing Language Function

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

**Table 6:** Reaching to depremyardim.com Function

<b>Use case name</b>	Reaching to afetharita.com
<b>Actors</b>	User, Static Website
<b>Description</b>	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.
<b>Data</b>	URL of the website.
<b>Preconditions</b>	-
<b>Stimulus</b>	User clicks the related button.
<b>Basic flow</b>	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.
<b>Alternative flow</b>	-
<b>Exception flow</b>	-
<b>Post conditions</b>	The user is redirected to afetharita.com.

**Table 7:** Reaching to afetharita.com Function

<b>Use case name</b>	Reaching to deprem.io
<b>Actors</b>	User, Static Website
<b>Description</b>	Deprem.io is a website that users can use to help earthquake victims.
<b>Data</b>	URL of the website.
<b>Preconditions</b>	-
<b>Stimulus</b>	User clicks the related button.
<b>Basic flow</b>	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.
<b>Alternative flow</b>	-
<b>Exception flow</b>	-
<b>Post conditions</b>	The user is redirected to deprem.io.

**Table 8:** Reaching to deprem.io Function

<b>Use case name</b>	Join the Discord server
<b>Actors</b>	User, Static Website
<b>Description</b>	The Discord server is where the developers of the project develop their projects and communicate. User can join the Discord server.
<b>Data</b>	Link for the Discord server.
<b>Preconditions</b>	-
<b>Stimulus</b>	User clicks the button.
<b>Basic flow</b>	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.
<b>Alternative flow</b>	-
<b>Exception flow</b>	-
<b>Post conditions</b>	The user can join the Discord server after redirected.

**Table 9:** Join the Discord server Function

<b>Use case name</b>	City Selection
<b>Actors</b>	User, Static Website
<b>Description</b>	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.
<b>Data</b>	Information about the given city
<b>Preconditions</b>	Information should be available beforehand.
<b>Stimulus</b>	User interacts with the dropdown menu.
<b>Basic flow</b>	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.
<b>Alternative flow</b>	-
<b>Exception flow</b>	-
<b>Post conditions</b>	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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## **4.2 External Interfaces**

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## **4.3 Functions**

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## **4.4 Usability Requirements**

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## **4.5 Performance Requirements**

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## **4.6 Logical Database Requirements**

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## **4.7 Design Constraints**

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## **4.8 System Attributes**

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## 4.9 Supporting Information

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