

# MÜHENDİSLİK VE MİMARLIK FAKÜLTESİ

## STAJ RAPORU

*Workplace Training Diary*



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NUMARASI <i>Student ID Number</i>	1904010038
BÖLÜMÜ <i>Department</i>	Computer Engineering – Bilgisayar Mühendisliği
STAJ DERS KODU <i>Workplace Training Course Code</i>	60000INEOZ-CME0096
Staj Yapılan Kuruluşun Adı <i>Place of Workplace Training</i>	Hilal Yazılım Bilişim Teknolojileri Ltd. Şti
İşyeri Sorumlusu Adı Soyadı <i>Name of Workplace Manager</i>	Seyithan Araz
İşyeri Sorumlusu-Kontrol Edenin Ünvanı <i>Name and title of Workplace Manager and Controlling Supervisor</i>	Sistem Analisti - System Analyst



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SEYITHAN ARAZ

# ÇALIŞMA ÖZETİ

Summary of Work Done

Çalışılan her bölüm için ayrı satır kullanınız ve gerektiği kadar satır ekleyiniz.  
Use a separate line for each department worked and add lines as needed.

ÇALIŞTIĞI BÖLÜM <i>Department Worked</i>	BAŞLAMA TARİHİ <i>Starting Date</i>	AYRILDIĞI TARİH <i>Completion Date</i>	ÇALIŞMADIĞI GÜN SAYISI <i>Number of Nonworking Days</i>	ÇALIŞTIĞI GÜN SAYISI <i>Number of Working Days</i>
Yazılım Geliştirme	08.08.2022	05.09.2022	0	20



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# HAFTA BAZINDA YAPILAN ÇALIŞMALAR

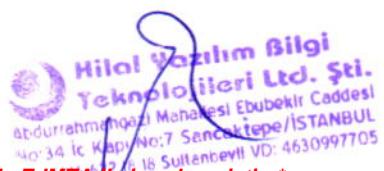
Week by Week Work Done

## WEEK I Hafta I

<b>HAFTA BAŞLAMA TARİHİ</b> <i>Week Starting Date</i>	<b>08.08.2022</b>
<b>HAFTA BİTİŞ TARİHİ</b> <i>Week Ending Date</i>	<b>12.08.2022</b>

GÜN <i>Days</i>	YAPILAN İŞLER <i>Work Done</i>	ÇALIŞILAN SAAT SAYISI <i>Hours Worked</i>
PAZARTESİ <i>Monday</i>	<ul style="list-style-type: none"> <li>1. Getting familiar with the office and the workplace.</li> <li>2. The working structure and schedule was great.</li> <li>3. My colleagues was very friendly and warm.</li> <li>4. They've introduced me the office and system, working structure.</li> </ul>	8
SALI <i>Tuesday</i>	<ul style="list-style-type: none"> <li>1. I attended a new hire secession for about 3 hours and heard about the history of Hilal Software.</li> <li>2. I've completed all new hire paperwork.</li> <li>3. Learning Development tools &amp; Installation process</li> </ul>	8
ÇARŞAMBA <i>Wednesday</i>	<ul style="list-style-type: none"> <li>1. Learning Development tools &amp; Installation process</li> </ul>	8
PERŞEMBE <i>Tuesday</i>	<ul style="list-style-type: none"> <li>1. Installation of IDE – Visual Studio &amp; opening a blank project</li> </ul>	8
CUMA <i>Friday</i>	<ul style="list-style-type: none"> <li>1. Frontend Development Learning – Some practices</li> </ul>	8

<b>ÖĞRENCİNİN İMZASI</b> <i>Signature of Student</i>	
<b>ÇALIŞTIGI BÖLÜM</b> <i>Department Worked</i>	IT (Information Technologies) / Software Development
<b>KONTROL EDENİN ADI UNVANI</b> <i>Name and Title of Controlling Supervisor</i>	Seyithan Araz/ Sistem Analisti
<b>İMZA ve KAŞE</b> <i>Signature and Stamp</i>	



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## **HAFTA BAZINDA YAPILAN ÇALIŞMALAR**

### *Week by Week Work Done*

## **WEEK II**

Hafta II

<b>HAFTA BAŞLAMA TARİHİ</b> <i>Week Starting Date</i>	15.08.2022
<b>HAFTA BİTİŞ TARİHİ</b> <i>Week Ending Date</i>	19.08.2022

GÜN Days	YAPILAN İŞLER Work Done	ÇALIŞILAN SAAT SAYISI Hours Worked
PAZARTESİ Monday	Learning IBYS Web services & how it works	8
SALI Tuesday	Testing our “Occupational Health and Safety” tracking web app	8
ÇARŞAMBA Wednesday	Operning user account and analyzing the app	8
PERŞEMBE Thursday	Web application analysis	8
CUMA Friday	Making a user guide (manual) for application	8

<b>ÖĞRENCİNİN İMZASI</b> <i>Signature of Student</i>	
<b>ÇALIŞTIĞI BÖLÜM</b> <i>Department Worked</i>	IT (Information Technologies) / Software Development
<b>KONTROL EDENİN ADI UNVANI</b> <i>Name and Title of Controlling Supervisor</i>	Seyithan Araz / Sistem Analisti
<b>İMZA ve KAŞE</b> <i>Signature and Stamp</i>	

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# HAFTA BAZINDA YAPILAN ÇALIŞMALAR

Week by Week Work Done

Her hafta için ayrı sayfa kullanınız ve gerekiği kadar sayfa ekleyiniz.  
Use a separate page for each week and pages as needed.

## WEEK III

Hafta III

<b>HAFTA BAŞLAMA TARİHİ</b> <i>Week Starting Date</i>	<b>22.08.2022</b>
<b>HAFTA BİTİŞ TARİHİ</b> <i>Week Ending Date</i>	<b>26.08.2022</b>

GÜN <i>Days</i>	YAPILAN İŞLER <i>Work Done</i>	ÇALIŞILAN SAAT SAYISI <i>Hours Worked</i>
PAZARTESİ <i>Monday</i>	ArkSigner Application analysis	8
SALI <i>Tuesday</i>	Arksigner download & installation	8
ÇARŞAMBA <i>Wednesday</i>	Customer support about ArkSigner program	8
PERŞEMBE <i>Tuesday</i>	ArkSigner Program Usage	8
CUMA <i>Friday</i>	Learning Xamarin Profiler Usage	8

<b>ÖĞRENCİNİN İMZASI</b> <i>Signature of Student</i>	
<b>ÇALIŞTIĞI BÖLÜM</b> <i>Department Worked</i>	IT (Information Technologies) / Software Development
<b>KONTROL EDENİN ADI UNVANI</b> <i>Name and Title of Controlling Supervisor</i>	Seyithan Araz / Sistem Analisti
<b>İMZA ve KAŞE</b> <i>Signature and Stamp</i>	

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# HAFTA BAZINDA YAPILAN ÇALIŞMALAR

## Week by Week Work Done

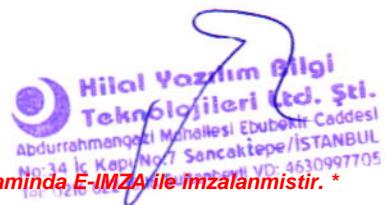
Her hafta için ayrı sayfa kullanınız ve gerektiği kadar sayfa ekleyiniz.  
Use a separate page for each week and pages as needed.

### WEEK IV Hafta IV

<b>HAFTA BAŞLAMA TARİHİ</b> <i>Week Starting Date</i>	<b>29.08.2022</b>
<b>HAFTA BİTİŞ TARİHİ</b> <i>Week Ending Date</i>	<b>05.09.2022</b>

GÜN <i>Days</i>	YAPILAN İŞLER <i>Work Done</i>	ÇALIŞILAN SAAT SAYISI <i>Hours Worked</i>
PAZARTESİ <i>Monday</i>	Profiler Analysis with Xamarin	8
SALI <i>Tuesday</i>	Button design in C# with WinForm	8
ÇARŞAMBA <i>Wednesday</i>	Fixing issues in button design – C#	8
PERŞEMBE <i>Tuesday</i>	Office document work	8
CUMA <i>Friday</i>	Conclusion about workplace and internship	8

<b>ÖĞRENCİNİN İMZASI</b> <i>Signature of Student</i>	
<b>ÇALIŞTIĞI BÖLÜM</b> <i>Department Worked</i>	IT (Information Technologies) / Software Development
<b>KONTROL EDENİN ADI UNVANI</b> <i>Name and Title of Controlling Supervisor</i>	Seyithan Araz / Sistem Analisti
<b>IMZA ve KAŞE</b> <i>Signature and Stamp</i>	



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# GÜNLÜK RAPOR

Diary

TARİH Date	08.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Acquaintance with the office, system and job description

## Day 1 – 08.08.2022

Today was my first day at internship. There was another friend at work besides me who came for an internship. I met him and other friends / colleagues who work there. They were all very friendly people. Before applying to this company as Software / Computer engineering intern, I've done a little research about company's history and software innovation history. I've intended to look into the Job Security and Health "software" industry and how it looks like, what are their rules, responsibility and environment. Obviously they work with a lot of platforms and there are using quite a lot technologies. On the first day of my internship adventure, my colleagues generally talked to me about the institutions, companies, individual customers and their main purposes for which they provide software solutions.

After the acquaintance phase was over, my colleague and the person who mentored me said that the main field they serve is Turkish Republic Ministry of Occupational safety and Health. I was aware of this when I was applying for an intern position and I had done a little research before, but the Job Security and Health safety master friends at the company informed me with more accurate and detailed information. So, after orientation meeting, I had a little tour of office. My colleagues were very friendly and warm people in general. I've been introduced with system, working structure and schedule. As an intern, I've also completed all the new hire paperwork. The team who's in charge of software development / engineering interns, gave us a requirement to-do list about their company's software. My mentor (colleague) scheduled review sessions and involved us in team meetings which helped me get a better taste of the professional environment and helped me feel involved and served as important checkpoints for gauging my progress. The service area of Hilal Software is a tracking application about "Job Security and Health" data for public and private organizations. Also I decided to search deeply about this field more. Because without analyzing, it was not possible to develop something in software field. I and my mentor, Software Development Team Leader formed the core members of the development team for his Project along with the guidance of Job security and Health ministry of Turkey Republic. I'll be a part of their automation Project during my whole internship process.

# GÜNLÜK RAPOR

Diary

TARİH Date	09.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Learning Development Tools & Installation process

## Day 2 – 09.08.2022

After a big orientation day and steps, I also need to get familiar with IT (Information Technologies) & Software Development part of the Project. In order to do that, I needed to install some tools & and learn new programming language from the basic steps. As I previously said, the company that I was doing my internship was creating “Job Security and Health tracking” apps for different companies, individual and corporate customers. Like usual, every software otomation Project has 3 main layers and development processes: Frontend, Backend and database part.

I would like to give some information about languages & tools that we used on the Project that we're developing :

1. Front-end part of the project: HTML, CSS, Javascript, Bootstrap 5, Jquery.
2. Back-end part of the project: C#, MVC5 (module), LINQ query.
3. Database development tools for the project: MS SQL server and MS SQL Management Studio.

A little bit detailed information is written below about our technologies:

- FRONTEND PART

**HTML** - HTML stands for HyperText Markup Language. It is a standard markup language for web page creation. It allows the creation and structure of sections, paragraphs, and links using HTML elements (the building blocks of a web page) such as tags and attributes. We used this also in web development process.

**CSS** - CSS stands for Cascading Style Sheets, and it's used to add style to a web page by dictating how a site is displayed on a browser. We also used this during web design development.

**JavaScript** - JavaScript is a text-based programming language used both on the client-side and server-side that allows you to make web pages interactive. Where HTML and CSS are languages that give structure and style to web pages, JavaScript gives web pages interactive elements that engage a user.

**Bootstrap 5** - Bootstrap is the most popular CSS Framework for developing responsive and mobile-first websites. Bootstrap 5 is the newest version of Bootstrap. Mainly we used this version in our otomation Project.

# GÜNLÜK RAPOR

Diary

TARİH Date	10.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Learning Development Tools & Installation process

## Day 3 – 10.08.2022

On the 3rd day of my internship, I continued to learn and search about the languages & development tools. After the research for the frontend part of our automation project finished, I realized that I needed to focus more on the backend side.

- BACKEND PART

**C# language** - C# is a modern, object-oriented, and type-safe programming language. It is the language from Microsoft that aims to combine the computing power of C++ with the programming ease of Visual Basic. C# is based on C++ and contains features similar to those of Java. C# is designed to work with Microsoft's .NET platform. Although, I had never dealt with the language before I was able to learn with the guidance of my colleague and mentor.

**MVC5 Module** - The Model-View-Controller (MVC) is an architectural pattern that separates an application into three main logical components: the model, the view, and the controller. Each of these components are built to handle specific development aspects of an application.

**Model:** Model represents the shape of the data. A class in C# is used to describe a model. Model objects store data retrieved from the database.

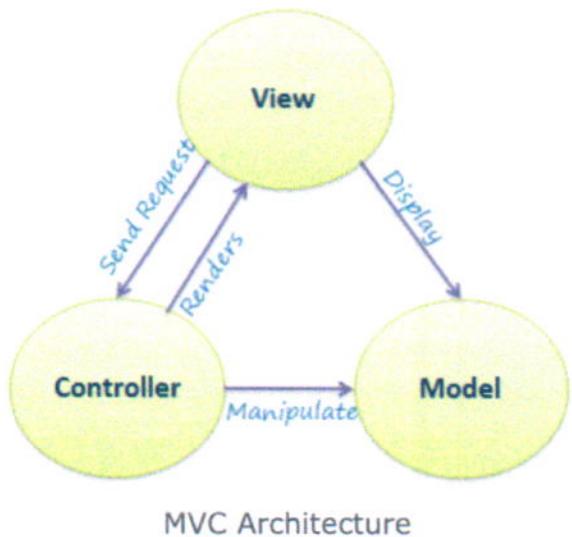
**View:** View in MVC is a user interface.

View display model data to the user and also enables them to modify them.

View in ASP.NET MVC is HTML, CSS, and some special syntax (Razor syntax) that makes it easy to communicate with the model and the controller.

**Controller:** The controller handles the user request.

Typically, the user uses the view and raises an HTTP request, which will be handled by the controller. The controller processes the request and returns the appropriate view as a response.



# GÜNLÜK RAPOR

Diary

TARİH Date	10.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Learning Development Tools & Installation process

## Day 3 – 10.08.2022 – Page 2

- BACKEND PART – More

**LINQ (query)** - Language-Integrated Query (LINQ) is the name for a set of technologies based on the integration of query capabilities directly into the C# language. We used this for mainly requests in project.

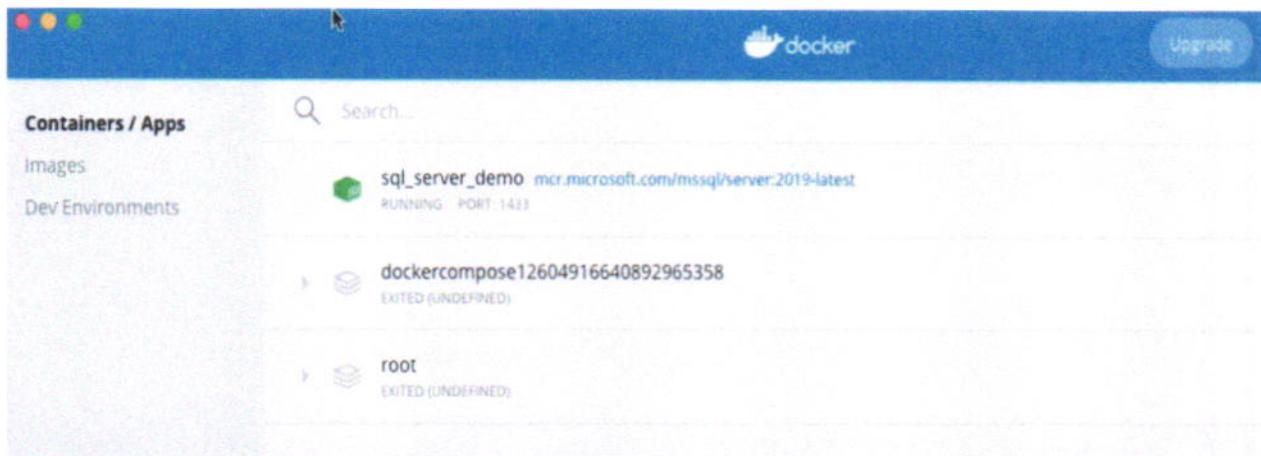
- DATABASE PART

A database is an organized collection of structured information, or data, typically stored electronically in a computer system. A database is usually controlled by a database management system. SQL is a widely used programming language designed to interface with databases.

The most common databases used in C# is Microsoft SQL Server. Microsoft SQL Server allows you to easily integrate your data into applications and take advantage of a broad set of cognitive services to leverage artificial intelligence at any data scale.

Since our project is “Job Security and Health tracking app” automation, we also use MS SQL Server.

I've used MacOS system in my own computer. But, in the workplace, operating systems like Windows and Linux are commonly used ones. I had a little problem while downloading MS SQL Server, since it's not available to MacOS. Thanks to Docker container for this. It really saved my during the whole installation and developing process. In simple terms, Docker is a software platform that simplifies the process of building, running, managing and distributing applications. It does this by virtualizing the operating system of the computer on which it is installed and running. You can see the installation of “Docker” from below:



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# GÜNLÜK RAPOR

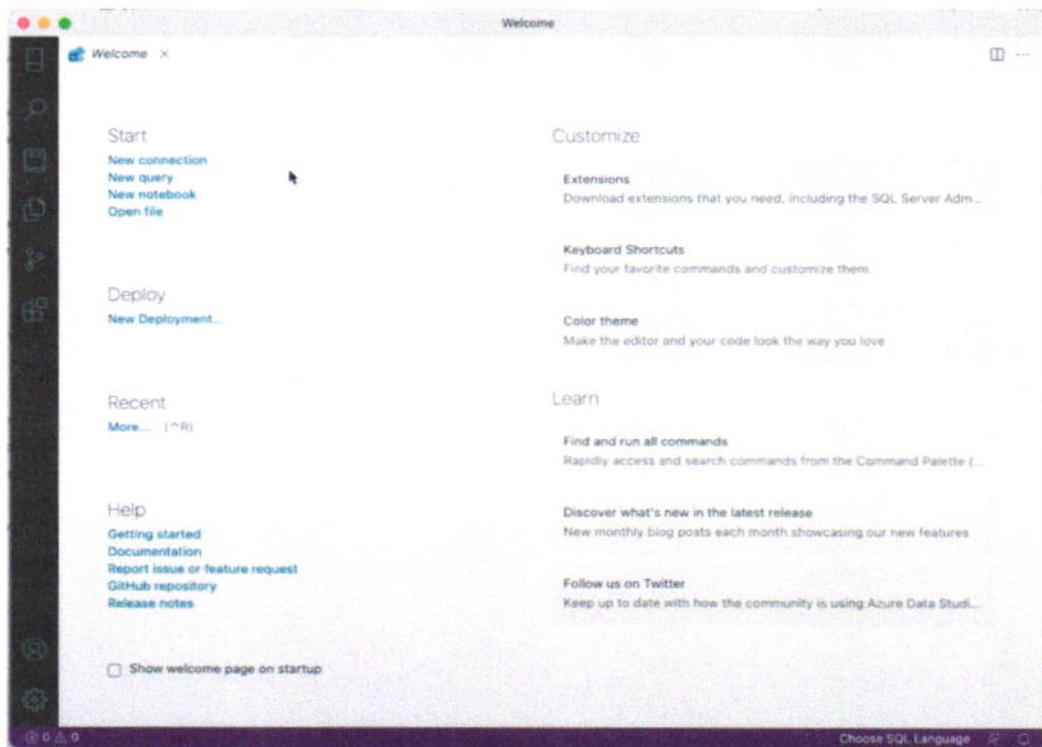
Diary

TARİH Date	10.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Learning Development Tools & Installation process

## Day 3 – 10.08.2022 – Page 3

- DATABASE INSTALLATION - Part 2

After the successfull installation of Docker container, I also needed to install other kind of alternative Management Studio. I've download and installed Azure Data Studio. This tool is the Mac equivalent for SQL Server Management Studio (SSMS).



The next step was of course was checking if SQL Server Works properly or not. I checked this by downloading sample database from internet before working my companys' database. I was able to connect to my running SQL Server in Azure Data Studio, and it become fully operational. I've tested a sample database from Microsoft and runned a few queries. I've used AdventureWorks2019.bak database that corresponds to our SQL Server version. After downloading the sample database file and moving it to a new system folder, Docker will be able to access it. The steps that I've followed to do this:

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# GÜNLÜK RAPOR

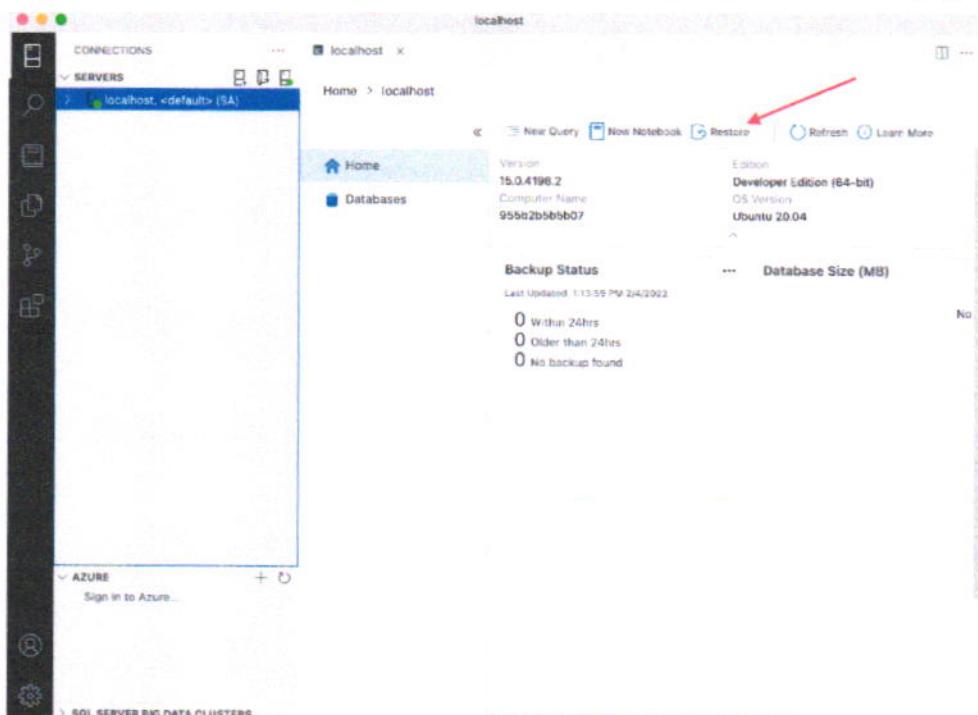
Diary

TARİH Date	10.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Database Development Tools Installation

## Day 3 – 10.08.2022 – Page 4

### • DATABASE INSTALLATION - Part 3

1. I've downloaded AdventureWorks2019.bak is in Downloads folder, my first move there in Terminal with `cd Downloads/` command.
2. Then I've created a new directory for my database file with `sudo docker exec -it SQLServer mkdir var/opt/mssql/backup` command.
3. Next, I moved my database to the new directory with `sudo docker cp AdventureWorks2019.bak SQLServer:var/opt/mssql/backup` command.
4. Then, I've opened Azure Data Studio and clicked Restore on my SQL server home page:



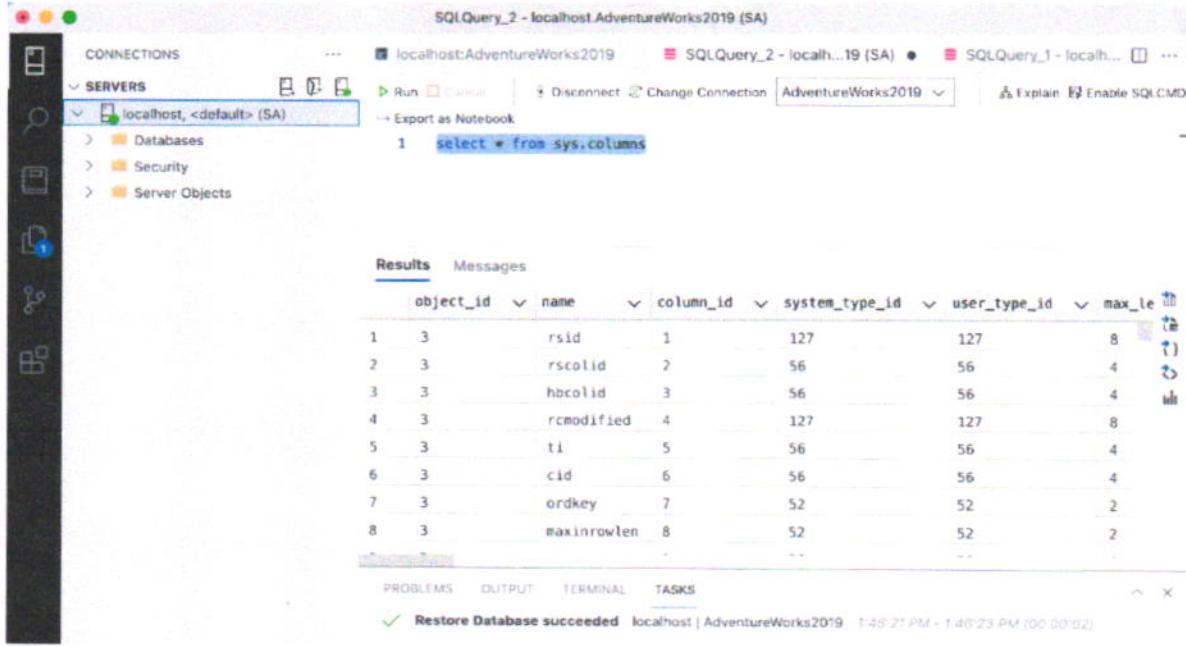
After this step, I was ready to test SQL database connection with a few test queries. In order to do that, I just selected my newly added sample database and clicked New Query. You can find the detailed information in the following page:

## GÜNLÜK RAPOR

Diary

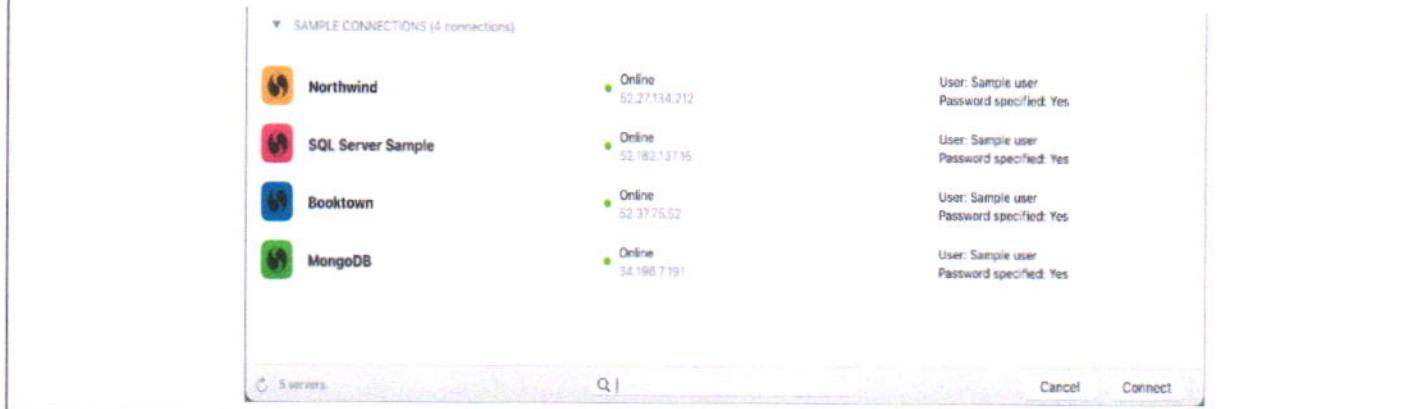
TARİH Date	10.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Database Development Tools Installation

**Day 3 – 10.08.2022 – Page 5**



Finally, I've completed my SQL Server setup, it's time to think about managing my databases. But managing databases it's not possible with just 2 applications.

SQLPro Studio is a native Mac app and supports multiple database types, including MySQL, PostgreSQL, Microsoft SQL Server, and others. The app excels at all the database management basics that I need — create tables, make custom queries. SQLPro Studio is a native Mac app and supports multiple database types, including MySQL, PostgreSQL, Microsoft SQL Server, and others. So, I download and runned it:



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# GÜNLÜK RAPOR

Diary

TARİH Date	11.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Installation of IDE

## Day 4 – 11.08.2022

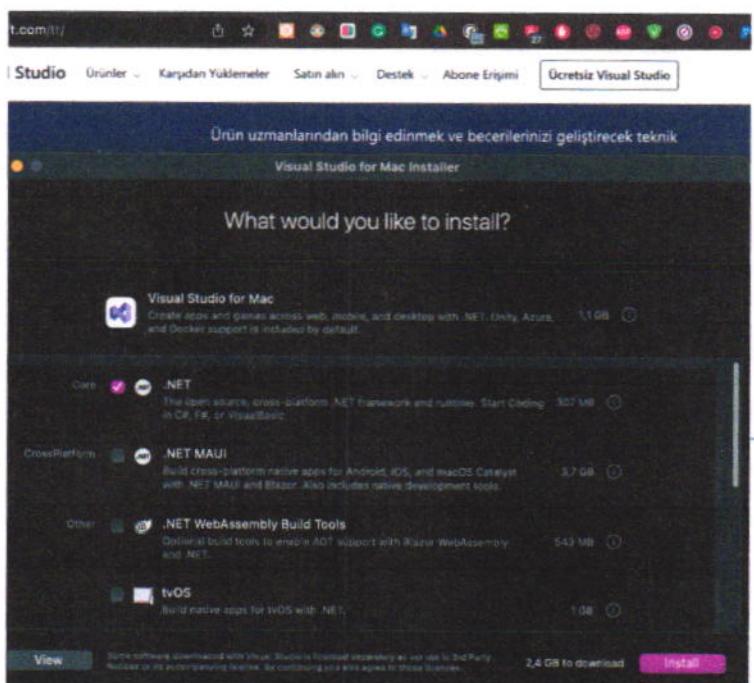
After a long and very hard setup process of requirements about our project, unfortunately it's not done yet. I need also to install and configure the proper IDE for automation project. An IDE, or Integrated Development Environment, enables programmers to consolidate the different aspects of writing a computer program.

Software Used : [Microsoft Visual Studio for Mac 2022](#)

The reason why we're using this, because this is the most appreciated IDE (Integrated Development Environment) of the majority of the C# developers: it's powerful, flexible, reliable and free.

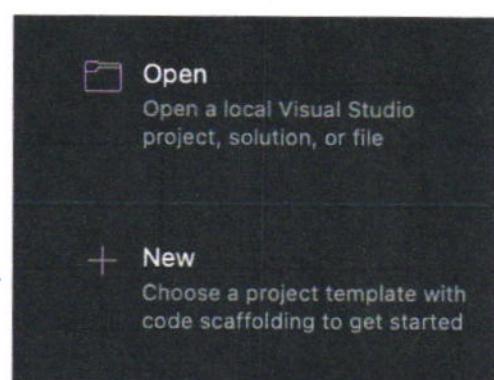
Also the community is very large and provides a lot of useful plug-ins.

You can see the screenshot of installation below:



The reason why I've selected .NET is because it helps you develop high quality applications faster.

- ▶ Modern language constructs like generics, Language Integrated Query (LINQ), and asynchronous programming make developers productive.



Right after the app downloading is finished,

I clicked "New" to create blank Project.

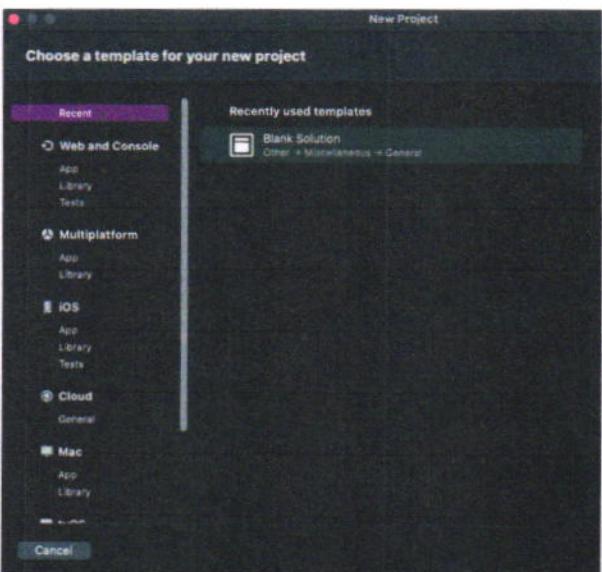
# GÜNLÜK RAPOR

Diary

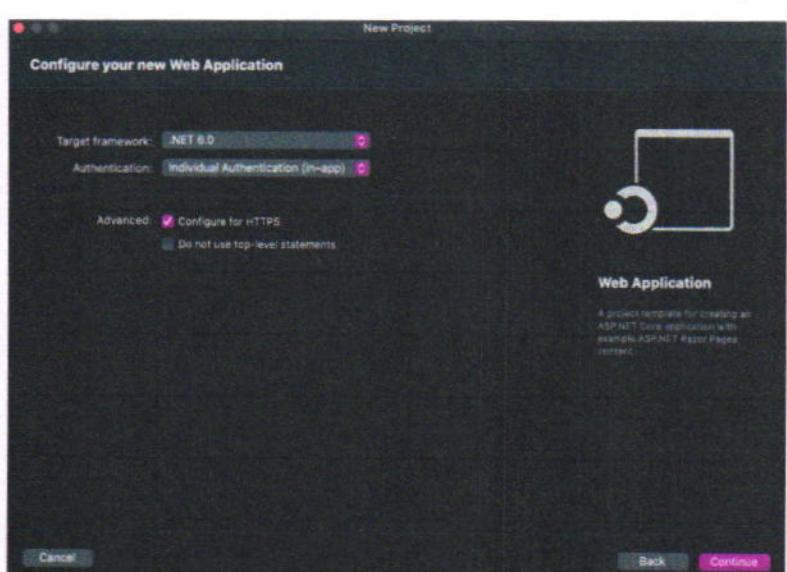
TARİH Date	11.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Opening a blank Project in Visual Studio

## Day 4 – 11.08.2022 – Part 2

I've opened blank project which is web application in order to develop my work.

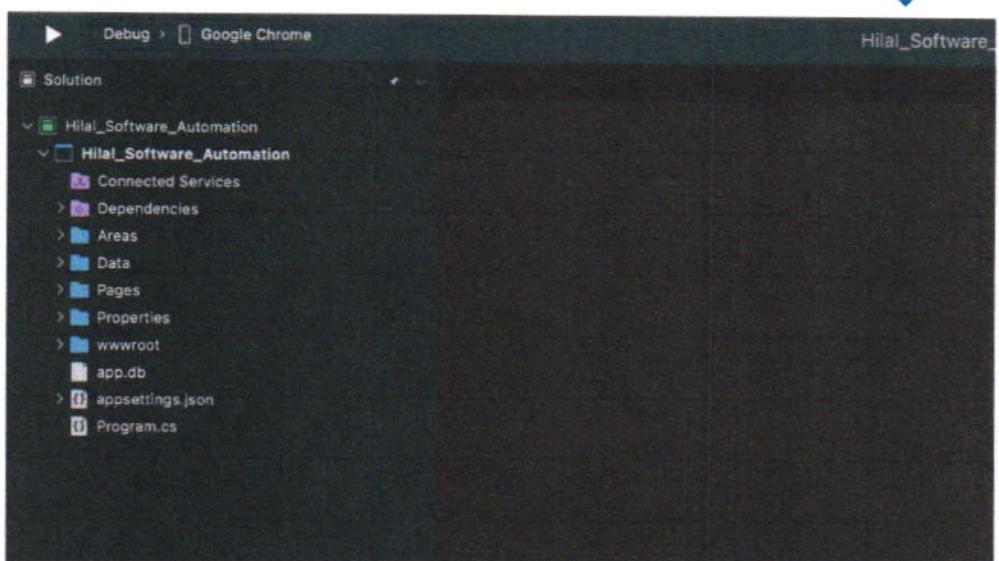


I've selected .NET 6.0 from "Target framework" area. And I ticked "Configure for HTTPS" in advanced section:



I've created a blank project and named it as "Hilal\_Software".

The next step after creating the project schema was to acquire some skills to make a design that is not very difficult in the frontend development part.



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# GÜNLÜK RAPOR

Diary

TARİH Date	12.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Frontend Development learning

## Day 5 - 12.08.2022

I've never had that much experience with frontend development in my both academic and personal life. So, since the company that I'm working as an intern developing corporate projet, they decided to give me little tasks in frontend part of application. But before that I needed to gain some knowlage. The end of the first week of my internship, I tried to improve myself in HTML, CSS, Javascript. I did some small practices while watching online courses in the office. My main purpose was to learn some basic instructions about these languages.

- Firstly, after a little research, I've learned how to code a simple button.
- Secondly, I also did some research in CSS. By doing the example below, I've learned a simple page design:

You can see from below:

The screenshot shows a code editor with two panes. The left pane displays the following HTML and CSS code:

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
    background-color: lightblue;
}

h1 {
    color: white;
    text-align: center;
}

p {
    font-family: verdana;
    font-size: 20px;
}
</style>
</head>
<body>
<h1>Software Development Intern</h1>
<p>Internship.</p>
</body>
</html>
```

The right pane shows a preview of the web page. It features a light blue background. In the center, there is a white h1 heading with the text "Software Development Intern" and a white p tag with the text "Internship."

## HTML Buttons

HTML buttons are defined with the button tag:

Click me

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# GÜNLÜK RAPOR

Diary

TARİH Date	12.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Frontend Development learning

## Day 5 - 12.08.2022 – Part 2

After doing some small exercises in HMTL & CSS, I needed to also make some practice in Javascript and Bootstrap.

3. It's a fun way to learn JavaScript by doing exercises. It's very easy and not complex.

```
<!DOCTYPE html>
<html>
<body>

<h2>My First Internship</h2>

<button type="button"
onclick="document.getElementById('demo').
innerHTML = Date()">
Zamanı ayarlamak için tıklayın.</button>

<p id="demo"></p>

</body>
</html>
```

### My First Internship

Zamanı ayarlamak için tıklayın.

\* Bu belge 5070 sayılı elektronik imza kanunu kapsamında E-IMZA ile imzalanmıştır.\*



# GÜNLÜK RAPOR

Diary

TARİH Date	15.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Learning IBYS Web services & how it Works

## Day 6 - 15.08.2022

Today, I will gained some information about web services of IBYS. As I mentioned before, Ministry of “Job Security and Health” has some web services for users. Let me inform you about that. Mainly used web service is “IBYS”. Shortly, İBYS (Occupational Health and Safety Information Management System). It is a software system developed to create a preliminary preparation of a central decision support system to be used in the works of the General Directorate of Occupational Health and Safety and to make sense of existing data. Keeping the OHS training records given to the employees in the workplaces by the General Directorate of Occupational Health and Safety, OHS is web service infrastructure where professionals can send data and query the workplaces they are assigned to and workplace information.

### *How Does İBYS (Occupational Health and Safety Information Management System) Work?*

After the OHS studies carried out by OHS Professionals in companies, training, health and source of danger data are collected. IBYS is a system of sending data to the ministry's servers electronically with an integrator firm software authorized by the Ministry. It is also possible to query the sent data on the servers of the Ministry.

### *What is IBYS Integrator Authorized Firm?*

OHS professionals and Joint Health and Safety Units (OSGB) send data to the Ministry through software developed by IBYS integrator companies. Integrator companies are companies that are authorized by the Ministry within the scope of IBYS and meet the conditions determined by the Ministry.

Lately, the Ministry of “Job Security and Health” published new version of IBYS service which is 2.0. We, as Hilal Software company, needed to update our entire system and web application to new version.

Today, the renewed version of IBYS web services was made available to all companies in the test environment. The Deadline for Authorized Integrator Firms to work on IBYS 2.0 test web services and to make their software compatible with IBYS 2.0 has been determined as 19.09.2022. IBYS 1.0 will be shut down on this date. So, we need to finish the update process until 19th of September.

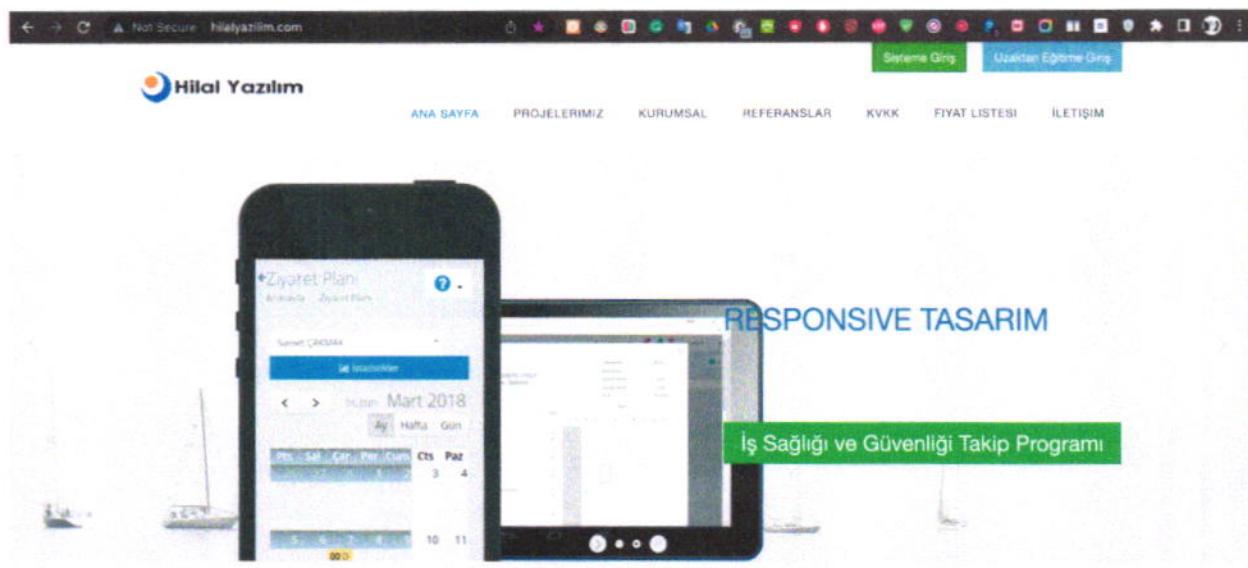
# GÜNLÜK RAPOR

Diary

TARİH Date	16.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Testing our “Occupational Health and Safety” Tracking application

## Day 7 - 16.08.2022

As I mentioned earlier, we have a web application that provides “Job Security and Health” tracking. Today, I’ve opened a simple user account in order to analyse the application. It’s very detailed and complex for a first time. First things first, we have a user side which is frontend part:



İSG Takibi Olomasyon Sistemi ile ayrıntıları boşusmadan, herhangi bir kuruluma gerek olmadan web ortamında, bilgisayar veya tablet veya akıllı telefonlarınız ile, iş güvenliği hizmetlerini sına, sekreterya ve yönetici bazında tüm yönüyle yönetin.

### User interface of web application

Unfortunately, we don't have any other foreign language option. For testing the application, I've clicked “Sisteme Giriş” button which means “Login to system”. This part of the application is basically made using HTML, CSS, Javascript, Bootstrap 5 programming languages. Application has 2 main option. Our application helps you take online and remote lessons to become an occupational safety and health specialist, as well as tracking “Occupational safety and health” of organizations. I analized that during my day. I've also checked other features of web app and I made a list of what can be change later in design part and etc. It helped me to improve my designer view. I'm an engineer, but also important to understand some basic things in UI part.

\* Bu belge 5070 sayılı elektronik imza kanunu kapsamında E-IMZA ile imzalanmıştır.\*

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# GÜNLÜK RAPOR

Diary

TARİH Date	17.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Opening user account and analyzing the app

## Day 8 - 17.08.2022

Overall, testing process is not finished yet. The next step is opening an user account for deep system analysis. All users can use their personal or company e-mail in order to create a simple account. The design is very simple and it also has a company official logo.

1. Login screen of tracking web app



2. Login screen of educational / course web app



I have to say that I'm not that familiar with the educational / course part of application. I'm only interested with tracking app.

### Deployment

The project is currently under deployment which includes securing export compliance as it would be released in different countries outside Turkey. The application has been licensed to eliminate any duplicity and would go through the Ministry of "Jub Security and Health"'s regular licensing policies.

After the requirements have been thoroughly understood, we started to design the structure of the project. This involved understanding certain design patterns and realizing their feasibility with the project.

\* Bu belge 5070 sayılı elektronik imza kanunu kapsamında E-IMZA ile imzalanmıştır.\*

# GÜNLÜK RAPOR

Diary

TARİH <i>Date</i>	17.08.2022
BÖLÜM <i>Department</i>	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ <i>Work Done</i>	Opening user account in the app

## Day 8 - 17.08.2022 – Part 2

We have this little modal and it comes as pop-up after directly login part. We needed to add it because of the customers. They need to know before the web service update.

Translation:

About IBYS Datasets Version 2.0

System updates were completed in line with the announcement of IBYS dated 21.06.2022. IBYS WEB 2.0 access of the Ministry will be opened as of 19 September. During this period, training and inspection will not be sent, as the old methods of IBYS access will already be closed.

Innovations,

Training and inspection submission methods have changed.

A service notification will be made before data is sent. Data will not be sent without a service notification.

OHS Professional verification feature added

Employee insurance verification feature has been added.

Added mining dataset.

For the announcement dated 21.06.2022, you can click on the link <https://ibys.csgb.gov.tr/Main.aspx?d=13>.

For detailed information about the service features, you can click on the link

<https://ibys.csgb.gov.tr/webservis/>.

IBYS Veri Setleri Versiyon 2.0 Hakkında

IBYS'ın 21.06.2022 tarihli duyurusu doğrultusunda sistem güncellemeleri tamamlanmıştır. Bakanlığın IBYS WEB 2.0 erişimi 19 Eylül itibarı ile açılacaktır. Bu sürede IBYS erişiminin eski metotları zaten kapalı olduğundan eğitim ve muayene gönderimi yapılmayacaktır.

Yenilikler,

- Eğitim ve muayene gönderim metotları değişti
- veri gönderiminden önce hizmet bildirimi yapılacaktır. Hizmet bildirimi yapılmadan veri gönderimi yapılamayacaktır.
- İSG Profesyoneli doğrulama özelliği eklendi
- Çalışan sigortalılık doğrulama özelliği eklendi.
- Maden veri seti eklendi.

21.06.2022 tarihli duyuru için <https://ibys.csgb.gov.tr/Main.aspx?d=13> linkine tıklayabilirsiniz.

Servis özellikleri hakkında ayrıntılı bilgi için <https://ibys.csgb.gov.tr/webservis/> linkine tıklayabilirsiniz.

Pop-up about about web service update



\* Bu belge 5070 sayılı elektronik imza kanunu kapsamında E-IMZA ile imzalanmıştır.\*

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# GÜNLÜK RAPOR

Diary

TARİH Date	18.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Web application analysis

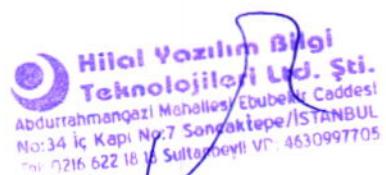
## Day 9 - 18.08.2022

Homepage of our application

Application has a lot of parts. It's very easy to use and we definitely can say that it's user – friendly. We have online education, registration procedures, admin operations, employee / worker processes, health / medicine processes, reports, handbag which means the detailed informations about ISG processes, CRM which means "Customer Relationship Management", ISG – "Job security and health" tracking and remote help.

From this part application has licence status, notifications button, profile logout button,

and a little button which represents the individual and corporate "Job security and health" firms.



22

\* Bu belge 5070 sayılı elektronik imza kanunu kapsamında E-IMZA ile imzalanmıştır.\*

# GÜNLÜK RAPOR

Diary

TARİH Date	18.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Web application analysis

## Day 9 - 18.08.2022 – Part 2

The shortcuts part of application which appears right after the login, has a lot of features.

You can edit the shortcuts very easily.  
I want show you a simple guide about how  
You can edit and add shortcuts to your  
homepage.

1. After clicking “Kısayolları düzenle” button, the screen below appears:

2. Then, I clicked “Uzaktan Eğitim”

3. The screen below appeared:  
It adds the selected data and asks from user to save this:

Sayfalar		Seçilen Kısayollar	
Kategori	Sayfa	Kategori	Sayfa
Uzaktan Eğitim	Uzaktan Eğitim		
Kayıt İşlemleri	Çalışan Kayıt-Düzenleme		

4. And Finally I added “Uzaktan Eğitim” shortcut into my homepage.

Ana Sayfa  
Anasayfa Ana Sayfa  
Sayfa bul...

Uzaktan Eğitim      Kisayolları Düzenle

\* Bu belge 5070 sayılı elektronik imza kanunu kapsamında E-IMZA ile imzalanmıştır.

# GÜNLÜK RAPOR

Diary

TARİH <i>Date</i>	<b>19.08.2022</b>
BÖLÜM <i>Department</i>	<b>IT (Information Technologies) – Bilgi Teknolojileri</b>
YAPILAN İŞ <i>Work Done</i>	<b>Making a user guide(manual) for application</b>

## Day 10 - 19.08.2022

Today, my task was making a user guide for our application users and customers. I had some research on the internet. After a few hours search, I draw a plan and checked a lot of examples. I also don't have that much experience on the customer side of the app. We also call it a simple "user manual". Since, our application has a concept which is a tracking system in special field, user manual also can be briefly explained. Because, it can be not that easy to learn quick each processes of "Job security and health" system.

The user manual and recommended sequence for beginners:

### Recommended Sequence for Beginners: (USER MANUAL)

#### For admin:

- Registration procedures -

Institution Personnel Registration-Regulation

Workplace (Customer) Registration-Editing

OHS Professional Appointment

- OHS Clerk -

Assignment Control

#### P.S:

You can make other menus according to your working style.

#### For OHS Professional:

- Registration procedures -

Workplace Department Registration-Regulation

Workplace Official Registration-Regulation

Employee Registration-Edit

- Workplace (Customer) Procedures -

Annual plan

Education Plan

Emergency Plan

- Employee Processes-

Team Assignment (Employee representative selection and support staff assignments)

Basic OHS Trainings

Other Trainings (Risk analysis team training)

- Workplace (Customer) Transactions -

Business Equipment

Risk analysis

# GÜNLÜK RAPOR

Diary

TARİH <i>Date</i>	22.08.2022
BÖLÜM <i>Department</i>	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ <i>Work Done</i>	ArkSigner application analysis

## Day 11 - 22.08.2022

The customer base of the company I work for is generally corporate and individual customers, as I have mentioned many times before, and corporate institutions called OSGB (in turkish, “İş sağlığı ve güvenliği firmaları”) in short. Today I've learned about the tool which makes our work much easier.

A transaction including invoicing can be done through our application. Nowadays, almost every user company prefers e-sign rather than physical one. e-Signature obtained from Electronic Certificate Service Providers; It is used in applications such as e-Government, KEP, MERSIS, UYAP, e-Prescription. In addition, service and other electronic contracts, bank instructions, etc. e-Signature is used in such cases.

### How to get e-sign?

To obtain an e-signature, it is necessary to apply to authorized Electronic Certificate Service Providers (CSP). These service providers, who will apply for the required Qualified Electronic Certificates, must have notified the Information Technologies and Communication Authority in accordance with the Electronic Signature Law No. 5070.

We're using an application for exactly this process. The name of the application is “ArkSigner”. Open & Look & Sign, thanks to the ArkSigner infrastructure it uses, provides you with an extremely comfortable, simple and reliable signing and verification infrastructure. You don't get bogged down with details, you don't have to look for support. With the preview feature, you can view and review your documents before and after signing them.

### How it Works?

The application server transmits the electronic signature to the ArkSigner API for electronic signature and certificate verification. ArkSigner API verifies the signature certificate through OCSP and/or CRL services provided by ESHS. The validation results are returned to the application server and the validation process is complete.

The program provides where their competitors cannot find an alternative; e-Signature solutions developed with C++ in Windows, Mac OS X, Ubuntu and Pardus operating systems without Java and .NET

# GÜNLÜK RAPOR

Diary

TARİH Date	23.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	ArkSigner download & installation

## Day 12 - 23.08.2022

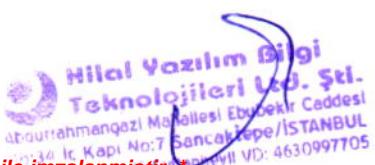
In order to help our customers and company, I had to download this program for testing. It's very easy to download application. I dedicate my all day for installing and learning of this program structure.

I preferred to download from the official website:

The screenshot shows the ArkSigner website. At the top, there is a navigation bar with links for HOME, ABOUT US, SERVICES, PRODUCTS, CUSTOMERS, BLOG, and CONTACT, along with a DOWNLOAD button. Below the navigation bar, the heading "ArkSigner for Mac" is displayed. A sub-headline states: "You can do everything that will enable you to sign electronically faster with the ArkSigner application developed for the Mac OS X operating system". To the left of the text, there is an image of a laptop screen showing the ArkSigner software interface. To the right, under the heading "For Standard User Privileges", it says: "You can download the updated ArkSigner installation file according to the new version of Mac OS X, BigSur and M1, from here". A call-to-action button labeled "Download for Mac OS X" is shown. Below this section, the heading "Features" is listed with various technical details:

Version	2.3.7
Version Date	25.04.2022
Summary (SHA-1)	9ba3e27a596b964afdcce54289312f3ee564fd088
Supported Versions	Big Sur, Catalina, Mojave, High Sierra, Sierra, El Capitan, Yosemite, Mavericks, Mountain Lion, Lion, Snow Leopard, Leopard
Processor Architecture	x64, M1
Supported Cards	All cards available from CAs
e-Güven setup	Mac Driver 10.10.11

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# GÜNLÜK RAPOR

Diary

TARİH Date	24.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Customer support about ArkSigner program

## Day 13 - 24.08.2022

After long installation process, I've learned quite a lot information about this application. I had a phone calls with our customer in order to help their problems. I tried my best in customer support today. After I got an email from our customer and user of our application, I had some research and I solved quite a lot problems.

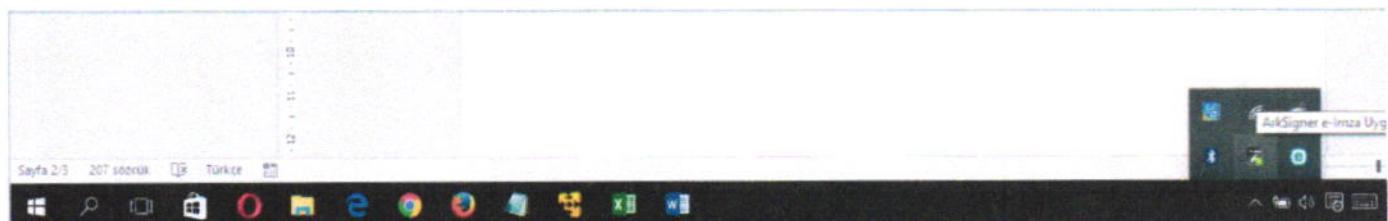
1st problem:

1st problem was the user does not have an electronic signature. Some users recently started to use e-sign system. The solution was so simple. Users has to obtain electronic certificate from <https://btk.gov.tr/TR/Sayfalar/e-imza-Elektronik-Sertifika-Hizmet-Saglayicilari> adress which provides the official document.

2<sup>nd</sup> problem:

The ArkSigner application is not installed on the user's computer.

Question: Picture of the ArkSigner application in the "System Tray" in the lower right corner of Windows does it exist?



Solution: From the application download link given within the application of the user, according to his own system. It is required to download the ArkSigner application and perform the standard installation.

I personally think that customer support is really importan in software field. The ability to clearly communicate, both verbally and in writing, is essential in excellent customer service, especially if you are speaking to someone who has a different native language. Answers to your questions should be clear, concise, and in your natural tone of voice.

I experienced this today and I had conclusion that it's particularly not for me.

# GÜNLÜK RAPOR

Diary

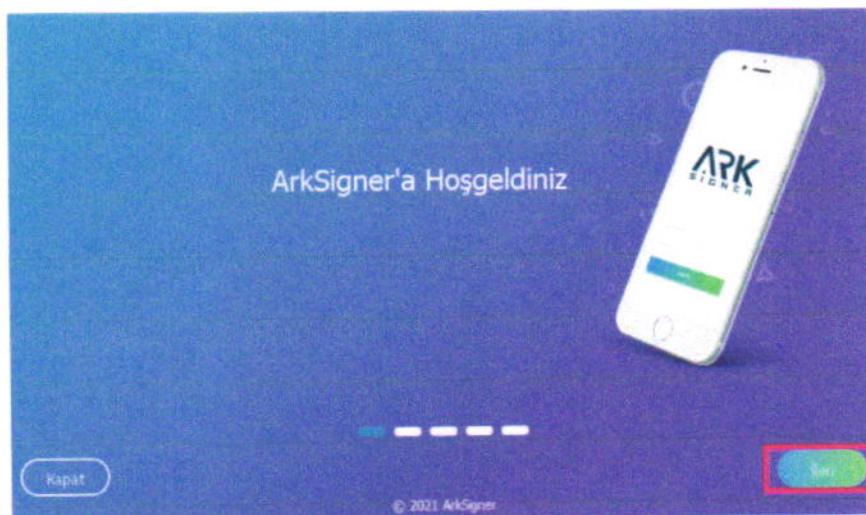
TARİH Date	25.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	ArkSigner program usage

## Day 14 - 25.08.2022

After installation and helping customers, I also needed to learn some detailed information about this program.

### Steps to Introduce Smart Card to E-Signature Application

1. Click the "Next" button on the ArkSigner E-signature Application interface that opens.



2. Continue by clicking the “Next” button



\* Bu belge 5070 sayılı elektronik imza kanunu kapsamında E-IMZA ile imzalanmıştır. \*

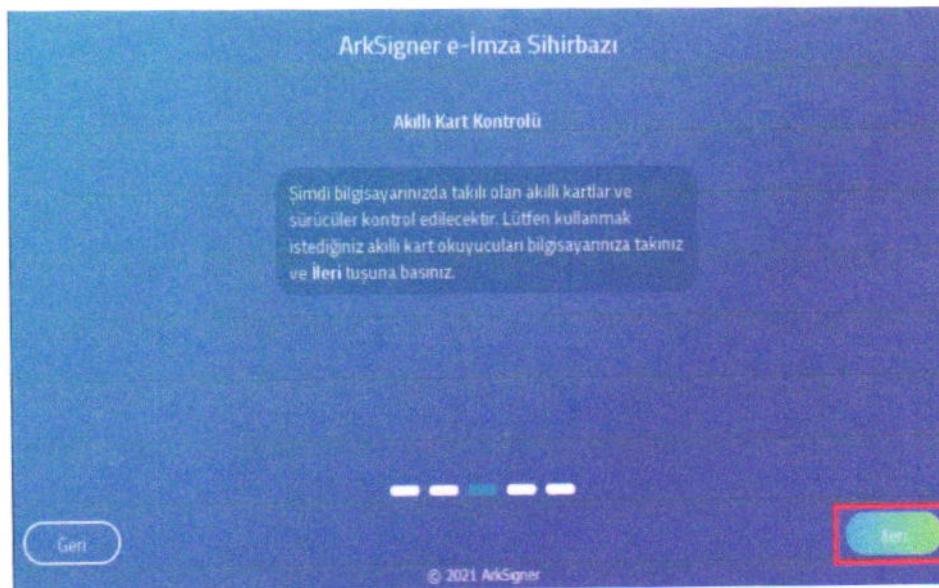
# GÜNLÜK RAPOR

Diary

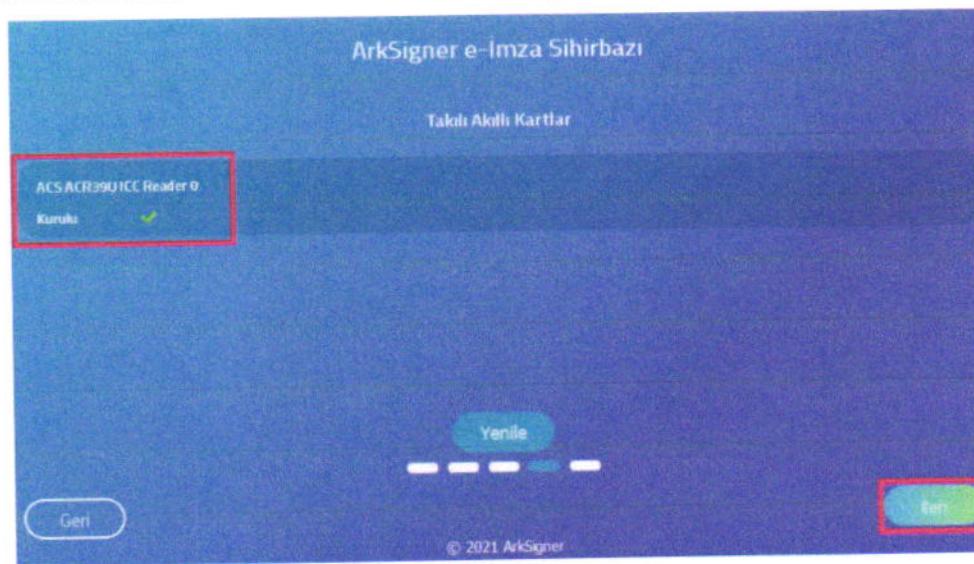
TARİH Date	25.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	ArkSigner program usage

## Day 14 - 25.08.2022 – Part 2

- Continue by clicking the “Next” button.



- The smart card reader is plugged into the computer, the "Refresh" button is clicked in the window that opens and smart card reader is listed. Continue by clicking the “Next” button:



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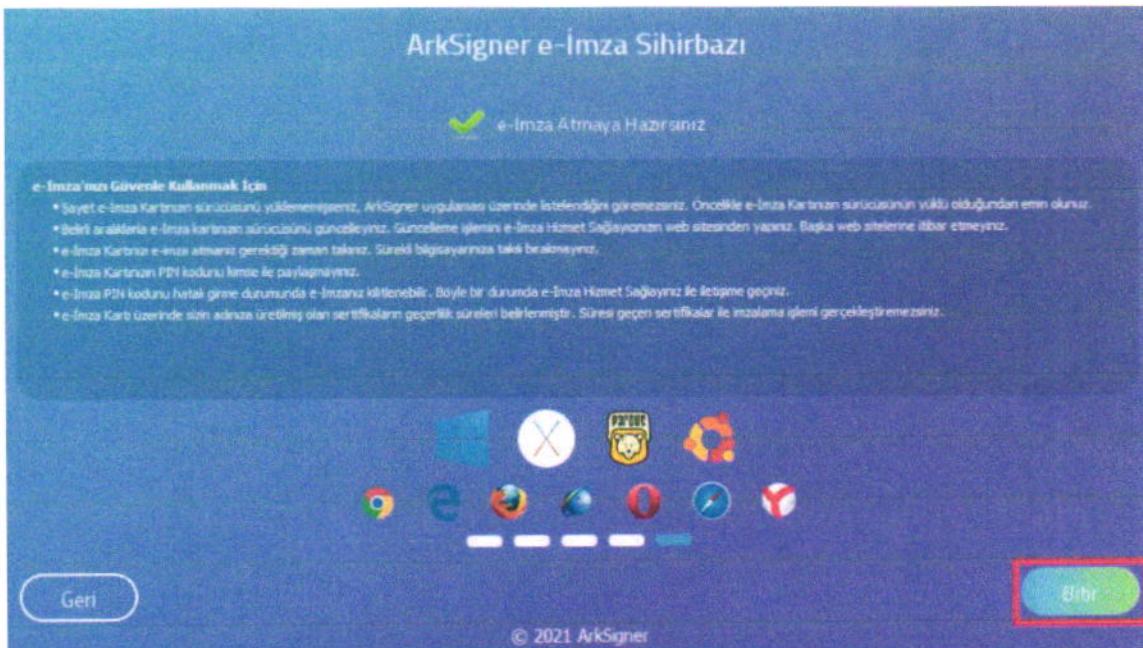
# GÜNLÜK RAPOR

Diary

TARİH Date	25.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	ArkSigner program usage

## Day 14 - 25.08.2022 – Part 3

- Clicking the “Finish” button closes the window.



The ArkSigner program has an error. For some users, ArkSigner in Google Chrome browser is not working properly. During this time, I called our company and advised our customers who encountered problems to use different browsers and directed them.

I created a solution to users' problems.

\* Bu belge 5070 sayılı elektronik imza kanunu kapsamında E-İMZA ile imzalanmıştır.\*

# GÜNLÜK RAPOR

Diary

TARİH <i>Date</i>	<b>26.08.2022</b>
BÖLÜM <i>Department</i>	<b>IT (Information Technologies) – Bilgi Teknolojileri</b>
YAPILAN İŞ <i>Work Done</i>	<b>Learning Xamarin Profiler Usage</b>

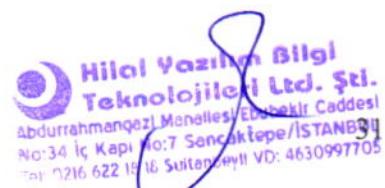
## Day 15 - 26.08.2022

This day, I'll learn a deep analysis of our web application. Profiling is an important and often overlooked step in application development. Profiling is a form of dynamic program analysis - it analyzes the program while it is running and in use. A profiler is a data mining tool that collects information about time complexity, the usage of particular methods, and the memory being allocated. A profiler enables you to drill deep and analyze these metrics to pinpoint problem areas in code. When designing and developing an application, it is important to not optimize prematurely; that is, spending time developing your code in areas that will rarely be accessed. This is the power of profiling. A profiler provides insight into the most commonly used parts of your code base , and helps locate areas where you should spend time making improvements. Developers should take care to understand where most of the time is spent in your application, and how memory is used by your application. After login to my account to the app, we have "Remote Assistance" . It's from Microsoft allows a Microsoft support professional in another location to view your computer screen and work on your computer over a secure connection.

Remote assistance refers to a connection that is intended to provide technical support from a distance. In this mode, a user who is sitting at his or her computer can invite a technician to see what is happening on the screen remotely. We're using Xamarin Profiler for this requirement. The Xamarin Profiler is a standalone application, and is integrated with Visual Studio for Mac and Visual Studio to enable profiling from within the IDE.

Xamarin Profiler is a tool developed by Microsoft that helps the developers to analyze the app's behavior, and its memory allocations with the help of a visual studio. It is a graphical interface that supports doing profiling in android, ios, tvos, mac applications in mac and android, ios, tvos applications in windows.

Currently, the Xamarin Profiler can be used to test Xamarin.Android apps on Windows (via Visual Studio and Visual Studio for Mac). The profiler is a separate process from the IDE, and so, in addition to launching from Visual Studio, it can be used as a standalone application to examine .exe and .mlpd files which have been produced from the mono log profiler.



\* Bu belge 5070 sayılı elektronik imza kanunu kapsamında E-IMZA ile imzalanmıştır. \*

# GÜNLÜK RAPOR

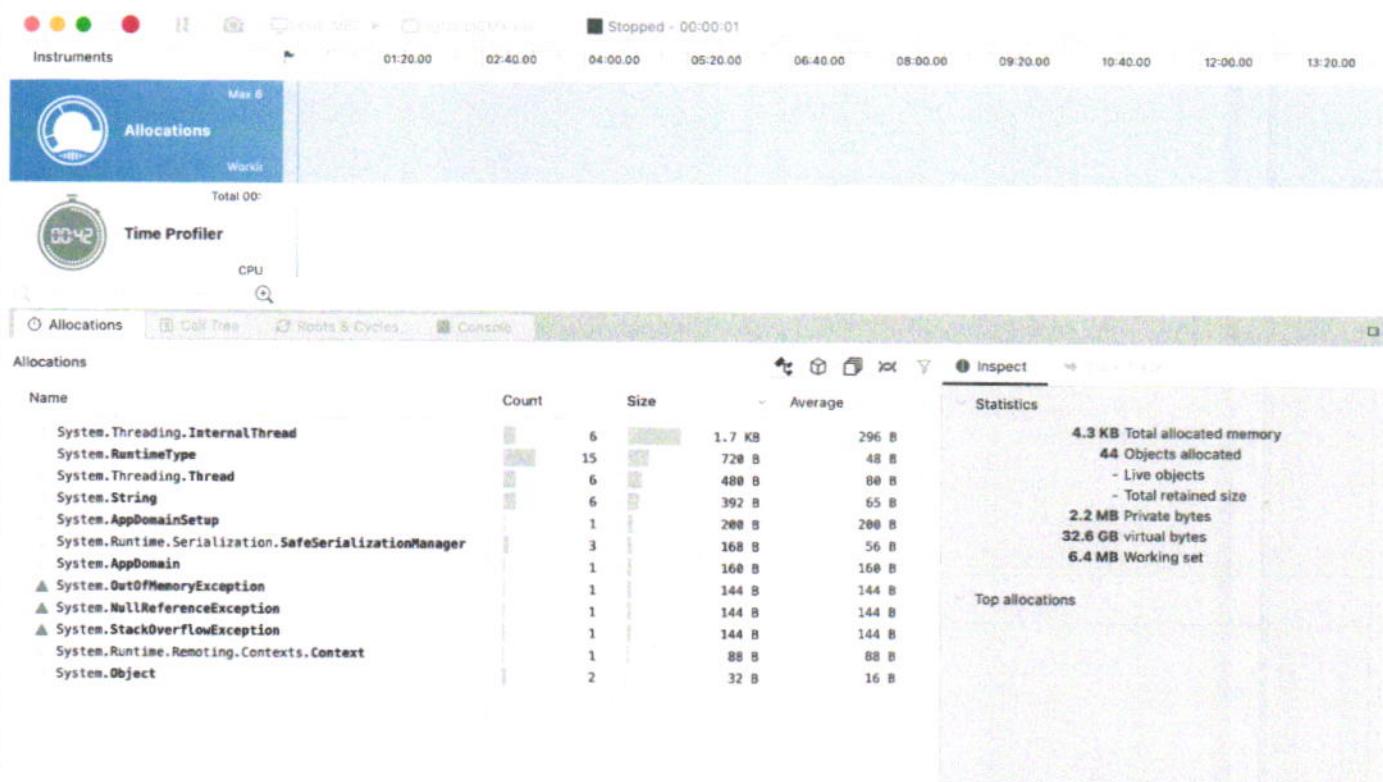
Diary

TARİH Date	29.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Profiler Analysis with Xamarin

## Day 16 - 29.08.2022

Thread class is used for working with threads. It allows creating and accessing individual threads in a multithreaded application. The first thread to be executed in a process is called the main thread. When a C# program starts execution, the main thread is automatically created.

I've downloaded the data from our web application. Which named isgtakibiCMX.exe and also I've downloaded "Xamarin Profiler". So, I can clearly see all my analysis data from Picture below.



The System Thread is a system configuration that helps ensure the application loop is not interrupted by the system background processing and network management. Size is not that big. Of course, in this type of profiling process, CPU has a big importance.

# GÜNLÜK RAPOR

Diary

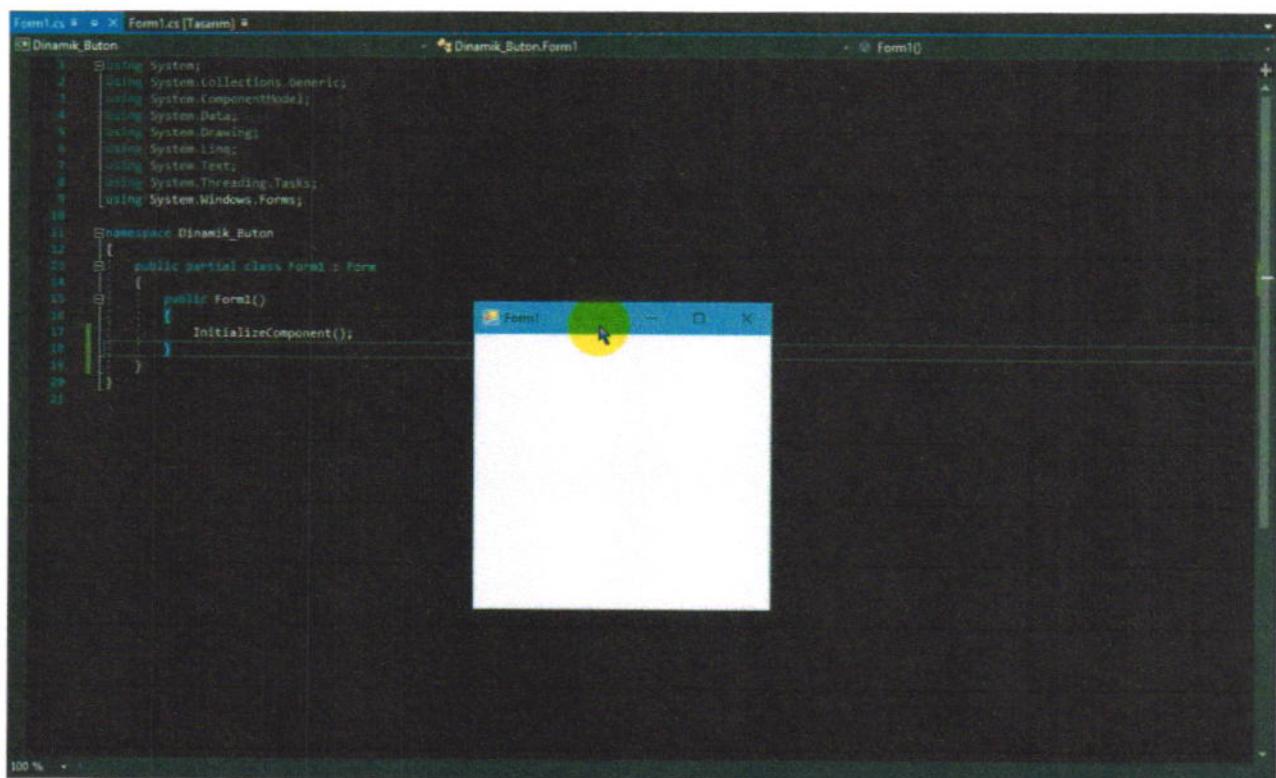
TARİH Date	31.08.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Button design in C# with WinForm

## Day 17 - 31.08.2022

Today, I had a simple task which is also a simple button design. I'm not able to add my whole work and share this but I did my duty. I previously mentioned that I'm not that much experienced in frontend. But in the first week, I did some exercises and I also have watched online courses.

Windows Forms is a UI framework for building Windows desktop apps. It provides one of the most productive ways to create desktop apps based on the visual designer provided in Visual Studio. Functionality such as drag-and-drop placement of visual controls makes it easy to build desktop apps. I'm using Visual Studio as an IDE.

After creating a new Project window, I've selected **Windows Forms App (.NET Framework)** template for C#. Next step was creating my application. I've created a form named "Dynamic Button".



## GÜNLÜK RAPOR

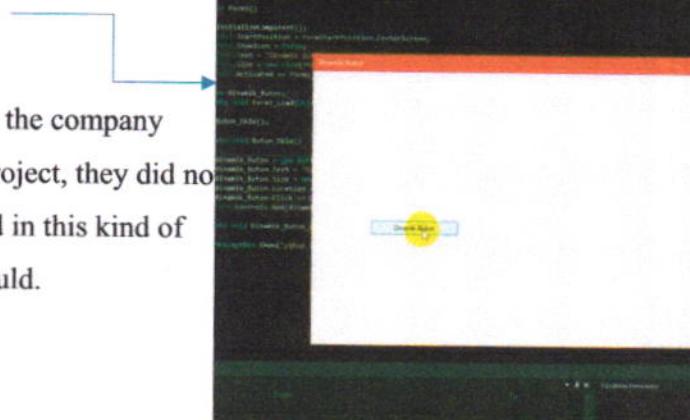
## *Diary*

TARİH Date	01.09.2022
BÖLÜM Department	<i>IT (Information Technologies) – Bilgi Teknolojileri</i>
YAPILAN İŞ Work Done	<i>Button design in C# with WinForm – Part 2</i>

Day 18 – 01.09.2022

Today I continue to my button design process. I mainly used system library. The using System line means the System library in my project. Which gives me some useful classes and functions like Console class or the WriteLine function/method. The namespace ProjectName is something that identifies and encapsulates my code within that namespace. I had some issues, today I've handled them.

After running my code, my button is ready ☺



Actually, Since the project being worked on in the company I work for is a corporate and comprehensive project, they did not involve me too much. That's why I participated in this kind of light work and tried to support as much as I could

# GÜNLÜK RAPOR

Diary

TARİH Date	02.09.2022
BÖLÜM Department	IT (Information Technologies) – Bilgi Teknolojileri
YAPILAN İŞ Work Done	Office Document work

## Day 19 – 02.09.2022

Today we had some technical problems at office. We had a electrical power outage that lasted for more than 1 day. So, that's why I couldn't do anything with my computer. Because ~~internet~~ <sup>there</sup> was also not internet connection. I especially wanted to mention this problem. That's why my task was organizing some paperwork and documents at the office.

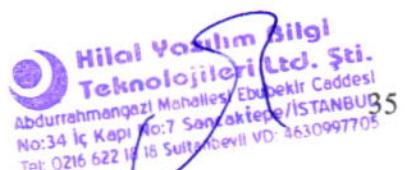
During the internship, I had to learn new technologies such as JavaScript, Docker, a virtualization tool, and to handle Git, a collaborative development tool via the SourceTree software through the Git Flow. Git Flow is a set of processes to follow in order to use Git correctly in a project involving at least two people. And I'm also not that Professional also using Visual Studio.

It was a challenge to produce the work required in a relatively short period of time, given my software development experience and that of the second trainee. However, it is a very good way to become familiar with the working constraints and work environment of a large company, to be on an interesting project which is important for optimizing the management of meeting rooms.s

In terms of deployment, I have had the opportunity to call on the company's IT department often. In the case of project management, this highlights the issues that may or may not delay the progress of the project. Indeed, the IT team was often asked for help, so I had to adapt to any delays in my deadlines and reorganize my action plan. Project Management Approach This training is also a practical application of group project management. The project allowed the implementation of a functional backend, which meets all the goals.

However, there is always work to do in order to optimize as much as possible the application that I was not able to realize for the following reasons :

- As a beginner in Frontend, I made design errors that coerce me to postpone my action plan for the project.
- The short duration of the internship for a rather large project, but it was very rewarding for beginners.



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# GÜNLÜK RAPOR

## Diary

TARİH <i>Date</i>	<b>05.09.2022</b>
BÖLÜM <i>Department</i>	<b>IT (Information Technologies) – Bilgi Teknolojileri</b>
YAPILAN İŞ <i>Work Done</i>	<b>Conclusion about workplace and internship</b>

### Day 20 – 05.09.2022

This internship allowed me to work both on the server side and the client side, especially during the integration of the backend in the frontend which had to be performed in a rather limited time, therefore the working constraints were similar to those of a real engineer.

This internship was an opportunity to immerse myself in the working environment of engineers as well as to understand their issues. Indeed, although the aim of the internship has no true effects on the company other than to ease the reservation of meeting rooms, it is nonetheless an important project since it involves many actors. First, from a development point of view, this internship was an opportunity to put teamwork into practice, since any function performed by the Backend must properly meet the client's needs as well as allow the Frontend to easily make server requests.

Since this internship was limited to the realization of the web application, only the global operation of the application will be explained, which excludes communication with the physical object.

During the design of the code, different types of problems have to be met. Also widespread:

- Syntax error.
- Fatal error.
- Find out the problem and try to solve that.

As we all know, our country is a developing country and it dreams to be a developed country soon. Hence the government of Turkey has taken many necessary projects to fulfill the concept of digital Turkey.

Day by day our job sector is getting more and more competitive.

As a result every other company is searching for experienced candidates

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# GENEL RAPOR

*General Report*

## INTRODUCTION – ABSTRACT

This report describes my internship at Hilal Software Information Technologies. Hilal Software Information Technologies has been founded in 08.09.2016. Company operates in the fields of computer programming activities, system, database, web page and automation software.

The scope of this document is to identify and describe the analysis carried out, projects completed, experience gained and focuses on the achievement as a Computer Engineering Intern.

Beykoz University provides that glorious opportunity to their students of having an internship within their bachelor program.

During my internship at Hilal Software Information Technologies, I was introduced to some new Technologies, languages and frameworks. But the most amazing experience was to work in a multicultural work environment culture.

Overall, I am very satisfied with the results of my internship. I was able to use my software development knowledge and apply it to a real organization working in a real-life problem. I was able to see some differences in functioning that resulted from my efforts. Due to the character of the internship and the short time period spent at Hilal Software Information Technologies, I took this experience as an opportunity to provide this company with the skills which I learned while a computer engineering student at Beykoz University.

Before joining Hilal Software Information Technologies, I was not familiarized and comfortable with databases, Frontend Development tools. But I've used it from yearly semester projects which helped me in the interview process.

Initially, I was given the role as a frontend developer intern, but after completion of my first Project I was presented with an opportunity to get some production experience in backend and database as well.

During my internship, I've gained the main information about databases and web development.



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GENEL RAPOR

## *General Report*

## About the Company

Launched in 2016, Hilal software operates with the assurance of ISO 9001, ISG, ISO 14001 and ISO 27001 Information Security Management System standards in order to provide fast, safe and quality service to its customers. The company works with the principle of providing services with the least margin of error, in the shortest time and at the lowest cost, with the knowledge and experience of the legislation, from the first stage to the last stage of the works we undertake. In addition to OHS tracking software operations, it also offers investment and project consultancy, investment incentive transactions, supportive and complementary software services.

It provides the best service by managing the most appropriate technological infrastructure, correct customer communication and reliable human resources for this service. It gives importance to the confidentiality of customer information. It has created and operated an Information Security Management System and secured it.

The organisation of the company that I'm working has also created and implemented a Customer Satisfaction Management System, along with a customer-oriented and open to continuous improvement Quality Management System.

## **ABOUT MY EXPERIENCE**

As a software / computer engineering intern, I was in charge of projects including creating a web application to make it easier for companies for working with the ministry of ISG in Turkey. I was given the freedom to execute every Project fully from solution architecture to implementation and testing while acting on feedback received from my mentor.

This internship has been a great learning experience as I have discovered most of the tools and techniques I used during the internship. These range from web development and good practices to database operations, code organization, code splitting and learning about Occupational Health and Safety Services. The program that we developed during my internship period addresses : OSGBs, Workplaces, Institutions.

Prior to internship, I've already had experience working with Wordpress, SQL, PHP, HTML & CSS , Javascript for building user interfaces. It is mostly used to create a integrated web application.

Our Service Areas: Business tracking software for public and private organizations.



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# DEĞERLENDİRME RAPORU

## *Evaluation Report*

This internship was an opportunity to acquire an in-depth knowledge of the web development application, to have a thorough vision of a little company, to assimilate development processes, to experience project management in challenging situations, to face and resolve blocking situations as well as to develop technical and human skills. It was a real pleasure to work at Hilal Software, as the environment is attractive and ripe to be productive. It allowed me to develop skills such as autonomy, teamwork and adaptability. Also, I could reinforce or acquire new technical skills through the use of Git, the learning of the JavaScript language and Docker technology. Even though I was able to set up a functional Backend, I wish I had went even further and attained all the goals of the project.

For my future internship, I would rather focus on a sector which is closer to my future major which is robotics or embedded systems. However, the skills developed in this software engineering internship will be useful in robotics. In both cases the goal will be to interact with the physical world: in one case the robot, in the other case a human client.

The internship program is a great opportunity of us because it enables us to learn about the industry and various practices. It also teaches us about the various skills needed to work in an office with other employees. It offers something we can never learn inside a classroom setting.

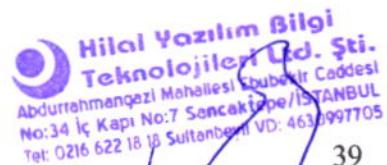
It will help me a lot in future life. Without the practical knowledge it is quite impossible to develop quality software. This industrial tour has paved the way to look into the development environment and marketplace. The market does not depend on only developing quality application. It is a lot more things than those. First we have to specify what we have to develop, for whom, why and how.

Understanding the user's mind and their requirements a software engineer has to think about new software. They gave a lot of good advice that I will take with me as we prepare to enter the workforce after graduation.

The age is totally dependent on modern information technologies. Nobody can escape away from it. Our one step to invent new technology can take the whole world a step forward.

Generally, I'm really glad to meet Hilal Software company and my team.

I would like to thank my teammates and especially Mr. Araz for his understanding and kindness.



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Seyithan Araz