**Internship Summary**

The internship was carried out at Ödeal Yazılım ve Bilişim A.Ş. between July 19 and August 15, 2024. During this period, work was conducted on a project named the "Documentation Project," with a specific focus on the PDF filling functionality. A data structure called "KeyValuePair" was developed to enable the dynamic filling of PDF documents. This structure facilitated the accurate matching of JSON data with the relevant fields in the PDF template, simplifying the processing of complex data sets.

The project was initiated using Spring Boot with a microservice architecture, which contributed to a modular structure and facilitated teamwork. Aspose and Apache POI libraries were used for file manipulation and conversion, allowing successful filling and transformation of both PDF and Word documents. Additionally, a file upload service was developed to handle the uploading and processing of various file formats. JSON data was used to fill in the template fields, and the final output was provided in PDF format. The project also involved adding digital and visual signatures to PDF documents. For digital signatures, tools like Java Keytool and Bouncy Castle were employed to ensure secure signing, and a service was developed to add visual signatures to specified areas based on user requirements.

During the internship, experience was gained in setting up and managing project environments using Docker and virtual machines. Internal training sessions provided further knowledge of network technologies and security protocols.

At the end of the internship, comprehensive testing was conducted to ensure the proper functioning of all services. The project was successfully completed with a final presentation, and positive feedback was received, indicating that the project could be used within the company.