Summer 2018- Internship Report

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Internship Project

Application: Barcode Encode and Decode

Objective: I have an individual project as there was no other intern in my team. I was given the task to develop a standalone application for test lead/business analysts to be able to generate barcodes from the shipping information of a package and be able to decode it. It had the stretch objectives of creating a barcode label that could be printed and excel upload for bulk barcode generation.

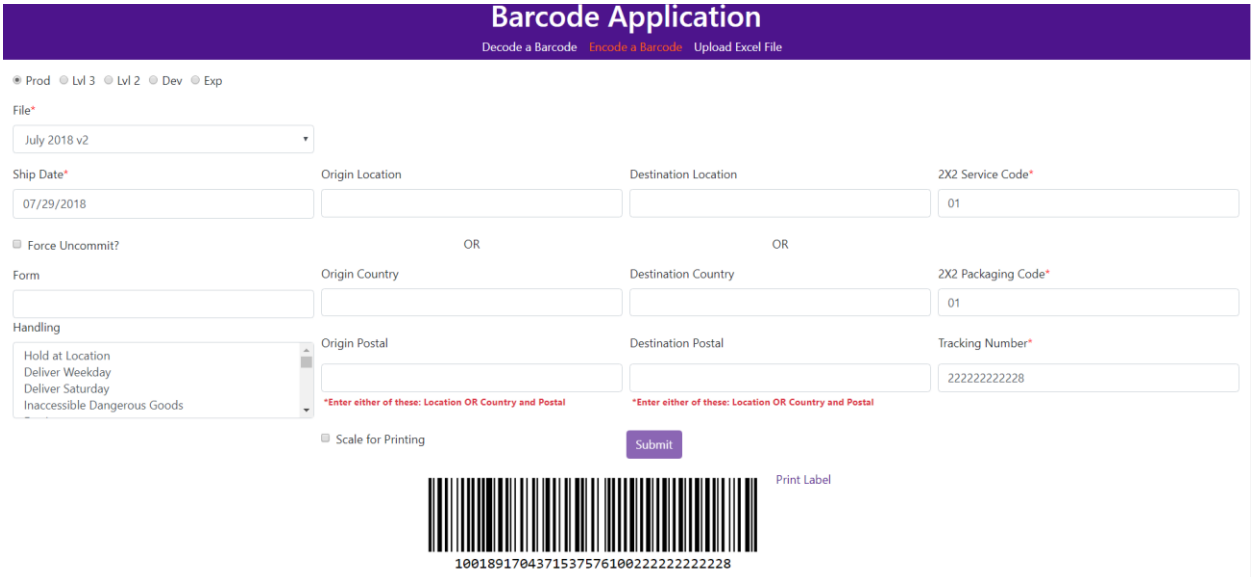
Technologies Used: Safe Agile framework, Angular 6, Spring Cloud, Visual Studio Code, Postman

Architecture: The front end is developed using Angular 6. The back end consists of REST API developed in Spring Boot. It further calls UVSDK for barcode generation and decoding logic.

UVSDK stands for URSA Validate Software Development Kit which is the latest interface to URSA file. It has access features for the data file, extensive validation capabilities and improved support. URSA stands for Universal Route/ Sort Aid. It comprises of data and software used for creating routing and commitment information that is used in sort systems. URSA makes use of a data files which contains information on the routes, locations, postal codes, holidays, service and handling attributes and routing codes.

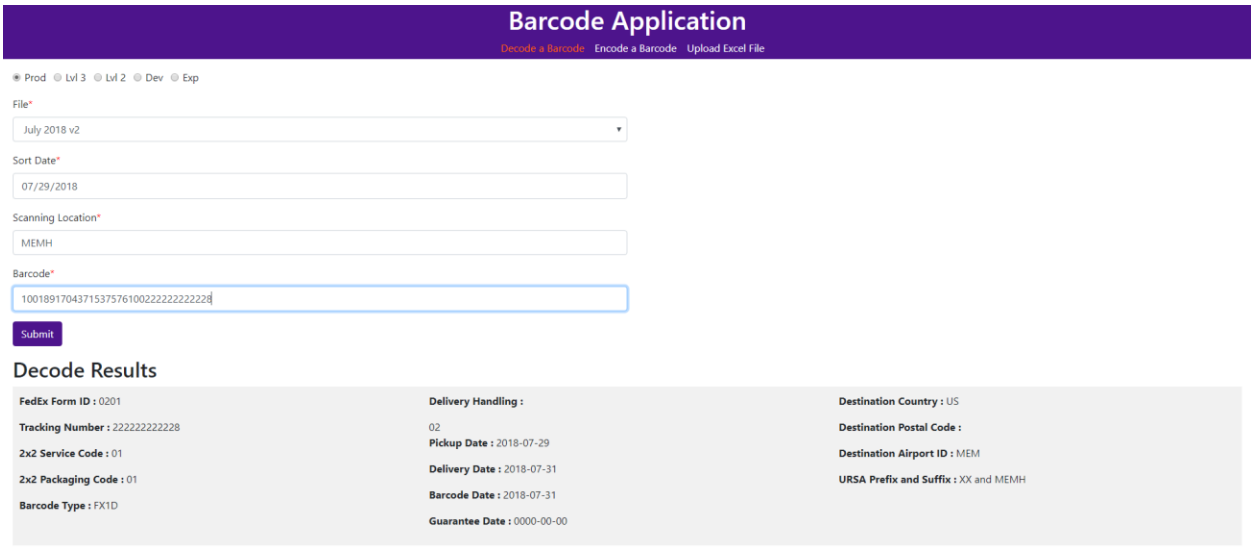
The data flow for barcode generation is as follows:

The screen developed in Angular 6 for barcode generation looks like this:



The data flow for barcode decode looks like this:

The screen developed for barcode decode in Angular 6 looks like this:



Learning Outcome:

The internship has turned out to be one of the best learning opportunities. The team was very welcoming, encouraging and supportive. I got to learn new technologies like Angular and Spring Cloud, which I had never used before. I also learnt how agile is used in big enterprises like FedEx. The team treated me as one of them, which helped me to quickly grasp the existing processes. The project that I am making has helped me dive deep into how shipping information from a package is used to create a barcode. It also propelled my thinking and made me curious about other projects around me. Further, there were many best practices and processes being followed in order to create best quality code. For example, I would commit code in my branch followed by code review from my mentor followed by a merge request. I got to learn from programmers who have more than ten years of experience. Looking at their code made me brain storm and improve my code's quality.

Overall the internship has made me more capable, skilled and prepared to take on challenging opportunities.