**My Summer Placement Experience within SP Digital**

This past summer, I had an amazing opportunity to work in digital working closely with DevOps as a summer placement. It was a great experience that has given me an insight into real-world applications for skills I have learned and developed within university and what to expect in the future.

**Getting Started**

When I first joined the team, I was excited but unsure what to expect as this was my first time working in an office environment. I was quickly introduced by Mark to Joe, Stephen, Asim and Andrew Black and then given a background into what roles they had within the department. After this I was introduced to the DevOps team which also included Taha and Jaikar.

Over the past couple months these guys have been on the receiving end of an endless barrage of questions whether it was ‘Why is this not working!?’ or ‘Is there anything else you could recommend I look at?’. It was thanks to them and others that I learned so much in my time here, making sure I always had something new to look at - allowing me to pick up lots of different skills and experience on stuff I probably would never have looked at otherwise.

**Key Projects and Contributions**

One of my main tasks was to create different Grafana dashboards to help visualize important information. I worked on:

*SAP FM Overview*

*API/FM Login Performance*

*App/Web Features - API/FM Calls*

*Weekly Reporting for API/FM*

Creating these dashboards was my first chance at getting involved with Data Visualization – allowing me to use previous skills and understanding of database queries in a new way. Being given the responsibility to identify and choose key pieces of data and then display it in a way that was readable and easy to understand was something I had never had the opportunity to do before. This dashboard was also shared with the CoE team for them to use as well.

When SAP RISE goes live on 23rd-26th August, these graphs will enable us to compare latency and error rates both pre and post-go live. This could be a useful tool to identify any new issues that have been introduced.

**Exploring New Tools**

I also got to work with some other useful tools like Kibana and Metabase. Writing SQL queries was challenging but rewarding as I learned to break down and pull-out information from various datasets. One memorable experience involved loading and testing a mobile app top-up through Bitbar and Firebase and then seeing it in the logs within Kibana - allowing me to see how different tools interact with each other.

**Learning Development Skills**

During my time there, I had a big focus on improving my coding skills, especially in Java. I learned how to create REST APIs using the Spring framework and JPA. I also explored Spring Security with OAuth2, which taught me important lessons about building secure applications. Working with JWT for authentication showed me how to create safe and scalable services.

For testing, I gained experience using Cucumber, JUnit, and Mockito. This was crucial for me to understand how to write effective and reliable tests for my code. Using Cucumber, I learned to write behaviour-driven tests that helped ensure features worked as expected. JUnit and Mockito were great for unit testing and mocking dependencies, allowing me to isolate and test individual components of my applications.

The hands-on experience was very helpful in reinforcing basic skills I had learned in university and was valuable in influencing the way that I now look at how I would go about producing, testing and maintaining software.

**Reflections on the Experience**

My time in the team didn’t just enhance and teach me practical skills. It gave me an introduction into how Digital Departments operate within an office environment, how each team interacts with each other and how the department communicates with other groups within and out with the business to ensure the digital operations runs smoothly and efficiently.

Overall, my time with the SP Digital team has been a valuable experience. I gained insights into Data Visualization, API development, Spring Security, JWT and lots more. Along with meeting a great team of people with a variety of roles and responsibilities.

Thank you for having me, I am sure I will be back soon!

Alex.

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