Summer Internship

Submitted to the Amity University Dubai Campus <u>In</u> partial fulfillment of requirements for the award of the Degree of

Bachelor of Science in Information Technology

By

Jaden Ade

Enrollment No: A92604920031

Batch: 2020-2023

Under the Supervision of:

Supervisor (Industry Guide)

Co-Supervisors (University Guide)

.……………

.…………………………..

Department of Information Technology
School of Engineering Architecture Interior Design
Amity University Dubai, UAE

Summer Internship - ETSI101

Title: Identifying and Cleaning of Data for Etihad Rail

Name of Guide(s)

Industry Guide Name: **Faculty Guide:**

Programme:-BSc-I.T.		Year/Semester:- Third Year / 5th Semester	
S.No.	**Enrolment No.**	**Name**	**Signature**
1	A92604920031	Jaden Ade	

Summary: - (50-100 words)

My internship was based on Identifying and Cleaning Data for Etihad Rail. I had worked with Back Office FZ which was tasked with handling the data for a national project called 'Etihad Rail'. My job role pertained around digitizing handwritten and printed documents of Etihad Rail. I learnt about MySQL and VB.Net

Resource requirement:- Desktop PC, Barcode Scanners, VB.Net, MySQL, Internet
Schedule of work completion:- 7 weeks

Signature of Student   Signature of
Guide(s)

Signature of Programme Leader   Name: Dr Vinod Kumar Shukla

Approval by Board of Faculty

Member	Signature	Remark (Approved / Not Approved)

DECLARATION

I, ………………………………………., student of requirement for the award of the degree of Bachelor of Science in Information Technology (2020-2023), semester -5, hereby declare that the Summer Internship titled "Identifying and Cleaning of Data for Etihad Rail" Which is submitted by me to Department of …………………….., Amity University Dubai, in partial fulfillment of requirement for the award of the degree of Bachelor of Science in Information Technology, has not been previously formed the basis for the award of any degree, diploma or other similar title or recognition.

Dubai, UAE

Date

Name and Signature of student

CERTIFICATE

On the basis of declaration submitted by ………………………….., student of Bachelor of Science in Information Technology (2020-2023), semester -5, I hereby certify that the Summer Internship titled "Identifying and Cleaning of Data for Etihad Rail" which is submitted to Department of Information Technology, in School of Engineering Architecture Interior Design, Amity University Dubai, UAE in partial fulfillment of requirement for the award of the degree of Bachelor of Science in Information Technology, is an original contribution with existing knowledge and faithful record of work carried out by him/them under my guidance and supervision.

To the best of my knowledge this work has not been submitted in part or full for nay Degree or Diploma to this University or elsewhere.

Dubai, UAE

Date

(Guide)

Department of Information Technology
School of Engineering Architecture Interior Design
Amity University Dubai, UAE

ACKNOWLEDGMENT

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ABSTRACT

I was able to meet different people, learn about distinct roles and responsibilities and be updated with the newest tech related to my field of internship. My internship was based on Identifying and Cleaning Data for Etihad Rail. I had worked with Back Office FZ which was tasked with handling the data for a national project called 'Etihad Rail'. I was tasked with Identifying and Cleaning the Data of Etihad Rail. My job role pertained around digitizing handwritten and printed documents of Etihad Rail. I had to take documents of similar formats, and then find them with the help of a unique barcode and then analyze the document for relevant and crucial information and enter that into a custom-built system. The base of the system was built by the Company's software developer on VB.net with the backend on MySQL. The tasks given to me, helped me understand how storage, insertion and retrieval of data are done. It also helped me gain insight into how VB.Net is coded and how it can be used in addition to that, I learnt about how MySQL is an enormously powerful database and how certain things like foreign keys, etc., can be used to link data from different tables to link box codes and files codes and so on. At first, I was under the impression that the knowledge I gained from this internship would not be beneficial or useful, but instead, I realized it would be useful for my future since it is given me insight into Data Analysis, handling and even VB.net and MySQL. Overall, I had a great and fun experience during my internship. It helped enhance and develop my skills, abilities, knowledge and understanding myself and my limits. It was a good experience and helped me not only gain a lot of memories, but also a lot of friends and connection with different people in the corporate world. I had been provided with adequate resources by the company needed for my work.

Introduction

An internship is a type of professional learning experience that gives students relevant, practical work related to their field of study or career interest. Through an internship, a student can explore and advance their profession while picking up new skills. It provides the company with the chance to develop talent, bring in new viewpoints and vigor, and even build a pipeline for future full-time employees. An internship helps us to gain practical work experience and provides the business with helpful support. Must have a mentor who serves as a role model and supplies guidance, criticism, honesty, and professionalism. To improve one's skills and understanding in a certain field. to create commercial connections. To be seen by senior management more often. Businesses, educational institutions, and students all agree that internships help students succeed academically. Exposure to challenges and problems from the real world, which are often less clearly defined or evaluated than those found in textbooks, is a crucial outside-of-classroom learning opportunity. During my internship, I was able to meet different people, learn about distinct roles and responsibilities and be updated with the newest tech related to my field of internship. My internship was based on Identifying and Cleaning Data for Etihad Rail. I had worked with Back Office FZ which was tasked with handling the data for a national project called 'Etihad Rail'. Etihad Rail was created to oversee the planning, building, and maintenance of the national freight and passenger railroad network in the United Arab Emirates. The railroad line extends from the Saudi border all the way through the United Arab Emirates to Fujairah on the coast of the Indian Ocean. A crucial part of the $100 billion Gulf Cooperation Council (GCC) rail development will be the railway infrastructure. By 2024, the GCC railway network, which will link the UAE with Saudi Arabia, Qatar, Kuwait, Bahrain, and Oman, should be complete. It was a very wholesome and knowledgeable experience and an insight into how my role worked and the challenges of that role and field. During my seven weeks, I was able to actively take part and provide my inputs and share my knowledge. The environment was quite different and new to me. Perhaps my learnings from this internship will be something knowledgeable for me in the future.

Materials and Methods

During my internship, I had worked with a company called 'Back Office FZ.' Back Office FZ. supplies records and information management, contact center, banking services, technology, and business process outsourcing solutions to banking, and financial services. All their services are driven by the latest technology. This allows Back Office to not only efficiently manage solutions but also supply transparency to the customers.

There were many materials and resources that were used during my internship. We used:

- Barcode Scanners: An optical scanner known as a barcode reader can read printed barcodes and send the decoded data from the barcode to a computer. It has a light source, a lens, and a light sensor to convert optical impulses into electrical signals, just like a flatbed scanner.

- PC: A desktop computer is a piece of personal technology made to sit on top of an ordinary office desk. It links to input devices like the monitor, keyboard, and mouse that users use to interact with a computer's actual hardware.

- OCR: The electronic or mechanical conversion of images of typed, handwritten, or printed text into machine-encoded text, whether from a scanned document, a photo of a document, a scene-photo, or from subtitle text superimposed on an image, is known as optical character recognition or optical character reader.

During my internship, I worked on many different things such as Record Management Solutions and Software Development Solutions. I started my internship on the 18th of July 2022 and ended it on the 1st of September 2022. As a Data Operator & Analyst, I was tasked with Identifying and Cleaning the Data of Etihad Rail. My job role pertained around digitizing handwritten and printed documents of Etihad Rail. I had to take documents of similar formats, and then find them with the help of a unique barcode and then analyze the document for relevant and crucial information and enter that into a custom-built system. The base of the system was built by the Company's software developer on VB.net with the backend on MySQL. During my internship, I supplied suggestions and even added a couple of features that would help make the program more user-friendly, easier to use and faster. I was managing records both digitally and physically, safely storing data for the future, and finding data in various formats. Alongside this, I worked on a combination of many tasks that were necessary for the creation and upkeep of software and applications, including designing, testing, programming, planning, bug fixing, and more. There were instances

where there was printed documents, and it was easier to just do an OCR on them. That way it saved time and made it easier to extract information.

If there were any discrepancies in the data, I had to review the original data and ensure that the correct data was entered. If there was any error, I was required to correct the error and update it through the software or directly in the database.

Results & Discussions

During my Seven weeks of internship, I have amassed various experiences and wider knowledge about the tasks assigned to me. My field of work required me to keep an SQL Backend; Collect, analyze, and store data for use in retrieval and reports, type and rearrange information; Report, retrieve, confirm, and update data that has already been stored; Handle and use front end User interface using VB.Net. The tasks given to me, helped me understand how storage, insertion and retrieval of data are done. It also helped me gain insight into how VB.Net is coded and how it can be used; in addition to that, I learnt about how MySQL is an enormously powerful database and how certain things like foreign keys, etc., can be used to link data from different tables so as to link box codes and files codes and so on. At first, I was under the impression that the knowledge I gained from this internship would not be beneficial or useful, but instead, I realized it would be useful for my future since it is given me insight into Data Analysis, handling and even VB.net and MySQL.

My experience with Back Office has been worthwhile. It taught me to be a thinker and a vivid analyzer as I had to go through the details of the documents and take out crucial and relevant information. I needed to ensure that the data I was inputting was exact and correct. If there was any discrepancy I could not resolve, I would take the assistance of my supervisor. The most important thing I learnt was to listen, to listen carefully to the instructions given by my supervisor and perform my tasks accordingly. I also noticed that the less I was distracted, the more I was consistent as well as having high-quality work.

I still remember my first day, how the supervisor showed me around the workplace and who the staff was. After that, he introduced me to the people I would be working with. I was then briefed on the work I had to do. The first task I had to do was barcode documents as my User ID and password were still under processing. After receiving my credentials, I was able to access the system & the program. I was quite surprised at the amount of trust my superiors had in me during my time at work. I had access to confidential and crucial documents of Etihad Rail and everything I did had to be done with utmost care since they were part of a National Project. Now before confirming the details on the database, I had to cross-check with the documents on hand to ensure I had entered the right information. There were many instances where I had made mistakes, and I would find/ be aware of my mistakes later. At first, I had to reach out to my supervisor to fix it as he had access to the data correction part of the software. But after a few days, they gave me access to that part of the software because I did not tamper with the data not inputted by me. There were also instances where I came across documents of different formats, which I referred to my supervisor. From doing my internship, I was able to find my strengths, weaknesses, opportunity and threats. My strengths are that I'm a good team builder and team player. I worked

with my supervisor and peers, and we worked as a team sometimes to find certain documents and so on. If anyone had any queries and if I was capable enough to answer them, I would give my opinion. Likewise, if there was anything I didn't understand, I would ask my peers too. And if they were also not able to answer, I would approach the supervisor. Besides that, I am a very cooperative person. I was also very approachable and I am very flexible and adaptable to the tasks given to me and the people I had to work with. My weakness is that I tend to not work very well under pressure. But that could also be that I'm new to the field and I lack experience in the work pertaining to my role. To top it off, I understood that I am more of a visual learner than an auditory one. I tend to understand what I have to do and so on better when I see how it's done rather than when it's told to me. The opportunities I've gained are greatly beneficial to me. I have built a good repo and relationships with my peers and the staff of the company I worked at. This might be one of the best experiences I've ever had. I was able to expand my knowledge into something different. In turn, I was able to suggest ideas on how to improve the software, and even know how it was built and how it worked. I also gained insight into how Etihad Rail operated and their way of documenting things. It was something new and interesting at the same time.

The challenge I faced during the internship was that I had to work with very confidential and important documents. This work was supposed to be done by the Company's Employees, but since Etihad Rail needed the work urgently and with the amount of data stored in boxes, the company had to hire interns to hasten the work. And due to this workload, I had to go to my supervisor and clear any queries I had so as not to make errors alongside helping my peers. Also, during my internship, we had people who came for a bit and left, so when new people came to intern and replace them, I oversaw training them and checking the quality of their work. I realized that there are many differences between University Life and Work Life in terms of schedule, deadlines and amount of work.

Conclusion

Overall, I had a great and fun experience during my internship. It helped enhance and develop my skills, abilities, knowledge and understanding myself and my limits. It was a good experience and helped me not only gain a lot of memories, but also a lot of friends and connection with different people in the corporate world. I had been provided with adequate resources by the company needed for my work. They provided me with a cubicle, a PC, barcode scanners, and an Access Card as the facility was well monitored and secure as they had confidential documents. The treatment of the company was just, fair and professional. I was able to learn from different people working there from different departments. I am grateful and thankful to my supervisor Mr. Abdul Hafeez and Mr. Israr for the experience, guiding and training me whenever I needed help. I feel seven weeks for the internship was not enough for me to go very in-depth about my role and the software, and so on used for the role. I'd like to say it was a very enlightening experience and a great insight into the current market. It made me understand how well-equipped and multi-skilled I need to be to be able to compete in the market and its standards. If not the overall aspect, I will take back the technical aspect of the job and use it for my future endeavors.

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