Report On

A Tech-Based Fleet Management Solution for Shuttle Technologies BD Limited

By

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An internship report submitted to the BRAC Business School in partial fulfillment of the
requirements for the degree of
Masters Of Business Administration

BRAC Business School
Brac University
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Declaration

It is hereby declared that

1. The internship report submitted is my/our own original work while completing degree at Brac University.

2. The report contains material that is authentic and not published in printed paper or anywhere online.

3. The main sources of help have been clearly acknowledged in the report.

Student's Full Name & Signature:

Samir Sakir Siddiqui
20264008

Supervisor's Full Name & Signature:

Dr. Sebastian Groh
Associate Professor, BRAC Business School
BRAC University

Letter of Transmittal

Dr. Sebastian Groh

Associate Professor,

BRAC Business School

BRAC University

66 Mohakhali, Dhaka-1212

Subject: Submission of Report of Internship for Masters of Business Administration

Dear Sir,

I am pleased to submit my internship report as a finding of my internship at Shuttle Technologies BD Limited. I am really grateful for the opportunity to be a part of your renowned organization, as well as the vital experiences and knowledge I obtained throughout my internship.

Throughout my internship, I had the honor of working with an excellent team of professionals at Shuttle who led and mentored me. I'd like to thank Dr. Sebastian Groh and Ahsanul Islam for their continual guidance and encouragement throughout my internship period.

Thank you for your time and consideration.

Sincerely yours,

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Samir Sakir Siddiqui

20264008

BRAC Business School

BRAC University

Acknowledgment

I would like to begin by giving thanks to Allah, The Supreme Power, for allowing me to complete this internship report despite the many obstacles I had to overcome. I'd also like to thank Dr. Sebastian Groh, my internship supervisor, for all of the helpful feedback and encouragement he's given me over the past few months when I had to reconstruct the entire thing from scratch. I owe a great deal of my success in finishing my report to these considerations. In addition, I'd want to express my gratitude to Ahsanul Islam, my on-site supervisor at Shuttle Technologies BD Ltd., for all of the time and effort he put in as a mentor and resource. Finally, I want to express my deep appreciation to everyone who helped with this report and to the universe for the incredible ride I've had during my MBA studies.

Executive Summary

Shuttle Technologies BD Limited is a Bangladesh-based innovative mass-transit startup experiencing accelerated expansion. The company focuses on providing affordable, secure transportation by maximizing passenger capacity and reducing the number of required vehicles. It caters to both B2B and B2C customers. Since 2018, Shuttle has been dedicated to offering safe transportation specifically for women. In 2019, they introduced Shuttle for Business, targeting corporate clients. Moreover, Shuttle now provides rental-based services for both corporate and individual customers.

The purpose of this internship report is to bridge the gap between theoretical knowledge and practical experience. It aims to apply practical insights gained during the internship to enhance theoretical understanding. The report presented here is the culmination of several months of internship at Shuttle Technologies BD Limited, located at their Head Office on Badda Link Road in Dhaka. It incorporates the theoretical knowledge I have acquired along with the practical experience gained during my internship period. This report consists of the development of the complete customized fleet management system that was developed for the management of their vehicles. The report briefly analyses the problem statement and briefly highlights the different stages of system development planning and execution. The entire project was divided into three phases which were carried out successively. The report consists of the work done throughout the project timeline and the impact it had on the overall fleet management of Shuttle and how it helped companies efficiently manage their

Keywords: Mass-transit, startup

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List of Acronyms

B2B	Business to Business
B2C	Business to Consumer
UAT	User Acceptance Training
SaaS	Software As a Service
KPI	Key Performance Indicator
USP	Unique Selling Proposition

Chapter 1

Overview of Internship

1.1 Student Information

Student Name: Samir Sakir Siddiqui

Student ID: 20264008

Program: Masters of Business Administration

Major: Operations Management

1.2 Internship Information

1.2.1 Internship Details

Period: August 2022 - Present

Designation: Operations Specialist, B2B Operations

Department: Shuttle for Business

Organization Name: Shuttle Technologies BD Limited

Address: Level 10, Tropical Molla Tower, 15/1-15/4 Bir Uttam Rafiqul Islam Avenue,

Middle Badda, Dhaka 1212

1.2.2 Supervisor Information

Supervisor Name: A. M. Ahsanul Islam

Designation: Head of Shuttle For Business

1.2.3 Job Description

- Coordinate with the supply team and other internal teams, such as accounts to keep transportation operations running smoothly.

- Determine the most efficient timetables, routes, and number of available vehicles to maximize productivity and efficiency. Vehicle fleets need to be monitored and managed to ensure punctual arrivals and departures.

- Monitor transportation quality, pinpoint improvement opportunities, and take corrective action to increase customer satisfaction and operational efficiency.

- Maintain transportation standards, including those for driver training, vehicle maintenance, and licensing requirements. Foster and maintain an environment where safety is prioritized.

- Data Analysis: Analyze for patterns, trends, and areas for improvement in transportation data, KPIs, and customer feedback. Generate reports and provide feedback to management

- Communicate with drivers, customers, and other stakeholders to provide information, resolve issues, and update transportation operations.

- Explore areas in which processes aren't working as smoothly as they could and think of creative ways to develop innovative solutions to streamline operations, reduce costs, and enhance overall productivity.

- Maintain uniformity in service by training drivers and operations employees in best practices, policies, and procedures.

1.3 Methodology

To complete this report, the primary sources of information was

1. The knowledge and professional experience gained through the company.
2. Consulting peer employees

The secondary sources of information was

Shuttle Website (https://www.shuttlebd.com/)

Newspaper articles and company documents

1.3.1 Student Contribution

My contribution to the project was basically to manage the overall project, from communicating with the stakeholders to gathering requirements and making the overall plan of the project deliverables and work breakdown structure. In addition to that, monitoring the project progress and ensuring project timeline is track was a major responsibility of the entire project. In case of any deviation, bringing the project back on track and highlighting regular updates and allocation of resources was another major part of my responsibility.

1.3.2 Benefits to the Student

The project helped me to grow immensely as a professional, as it pushed me out of my comfort zone and involved carrying out a case that involved a complete tech based solution to an age old process. Not only did it help me develop my corporate communication and project management skills, but it also helped me plan, organize, and manage conflict and to ensure timely implementation of deliverables. The project also helped me learn about the different

stages of the project management process and gave me an idea on the development of tech based solutions in the form of SaaS (Software as a Service).

1.3.3 Problems/Challenges faced during the internship

One of the most common challenges I faced was managing scope creep. As technology evolves rapidly, stakeholders often request additional features or modifications during the development process. While these requests can bring valuable enhancements, they can also disrupt the project timeline and strain available resources. To address this, I implemented a robust change management process, ensuring that all scope changes were thoroughly evaluated, documented, and approved before implementation. Regular communication with stakeholders and setting clear expectations from the outset played a pivotal role in managing scope and preventing unnecessary delays. Managing project timelines and resource allocation posed its own set of difficulties. Balancing competing priorities, aligning schedules, and addressing unforeseen setbacks required meticulous planning and adaptability. I utilized project management tools to create comprehensive timelines, allocate resources effectively, and monitor progress. Regular progress reviews and proactive risk assessment allowed for timely identification of potential bottlenecks, enabling me to implement mitigation strategies and keep the project on schedule.

Chapter 2

Organization Part

2.2 Overview of the Company

Founded in Bangladesh, Shuttle is an innovative mass transit startup dedicated to offering safe and inexpensive transportation options by effectively transporting more people with fewer vehicles. Shuttle was founded in 2018 with the intended goal of providing ride-sharing services only to North-South University students. Its scope grew over time to include female students from BRAC, AIUB, East-West, and other institutions of higher learning. For convenient travel inside Dhaka city, Shuttle offers daily and monthly packages for B2B and B2C clients. Reyasat Chowdhury, a former product specialist at Robi, seized the opportunity to put his startup idea into practice when he participated in a contest run by Robi for its employees. His winning proposal ensured an initial investment from Robi, which has since become one of Shuttle's investors and shareholders. The primary group of co-founders responsible for Shuttle's success includes Reyasat Chowdhury, Jawwad Jahangir, Shah Sufian Mahmud Chowdhury, and others. (Why pay for the entire car when you can pay for your seat in 'Shuttle,' 2021).

With the unique selling proposition (USP) of "Shuttle for women," Shuttle started its journey to meet the particular transportation demands of female passengers. The business developed a reputation as a dependable service provider thanks to its dedication to offering comfortable and hygienic journeys, especially during the epidemic. At the end of 2019, Shuttle launched the "Shuttle for Business" service, which is now available in Dhaka and Chattogram and accommodates both male and female passengers. The business's partnership with a

significant international bank in October 2019 strengthened its position in the market by providing transportation services to its staff (Naher, 2021).

Shuttle is able to provide low-priced service because it uses two methods of vehicle procurement. The first choice, known as Shuttle Pool, entails working with independent contractors that operate their own cars for hire and profit from the Shuttle. The second type, the Shuttle Fleet concept, employs zone-based vehicle providers to maintain a system of fixed-price procurement. By employing these strategies, the company is able to effectively service the needs of its expanding client base at prices that are within a reasonable range (Naher, 2021). The addition of Shuttle Rental in 2020 showed the company's commitment to diversifying its offerings. Those in need of transportation from Dhaka to any other destination in Bangladesh or beyond can take advantage of this service. By giving consumers a wide selection of rental alternatives, Shuttle is able to serve a wider range of transportation requirements (Naher, 2021).

Shuttle's stellar results show that the company strives for excellence in all that it does. More than 50,000 customers had been served, and over 2,200,000 journeys had been completed. Shuttle has worked with over 50 firms, including large corporations like Standard Chartered Bank, HSBC, Nestle, and Augmedix, thanks to its fleet of over 400 air-conditioned vehicles. According to the research, there was a 40% decrease in total employee transportation costs and a 20% increase in employee satisfaction after using Shuttle's transportation solutions.

2.3 Management Practices

2.3.1 Leadership Style

At Shuttle, leadership is centered on creating a collaborative workplace that places a high value on individual freedom through communication and cooperation. This atmosphere promotes openness and participation while avoiding all forms of politics. Within the organization, there is a strong emphasis on encouraging open and honest communication between employees, department administrators, and management. Management places a high value on honesty, dependability, and accountability while actively encouraging employees to take responsibility for their work. The leadership style is best described as democratic, since decisions are not predominantly made by those at the top. Instead, decisions are reached through discussions with the relevant authorities, personnel, and team members. Each team leader within the organization promotes open communication channels and solicits regular feedback and input from team members to cultivate a collaborative work environment. environment by nurturing open channels of communication and continuously soliciting feedback and input from team members.

In addition, team leaders provide team members with ongoing guidance and instruction to enable them to make informed decisions in critical situations. This strategy enables employees to take ownership of their work and assume responsibility when necessary.

The organization's leadership mindset encourages both personal and professional development. It actively endeavors to provide training and development opportunities that expand the company and advance the careers of its employees. Essentially, the organization maintains a leadership approach that has a positive impact on the workplace. It ensures that

employees feel valued, supported, and empowered, motivating them to substantially contribute to the organization's overall success.

2.3.2 Recruitment and Selection

The recruitment and selection process at Shuttle is very rigorous. The process begins with an online form collection, which has a general questionnaire for the primary sorting of resumes. After the primary selection based on criteria, the resumes are further selected through manual screening by the human resources department based on the skills necessary for the role. The second major part of the selection process is calling the candidates for an HR interview. Once sorting is done based on the HR interview criteria, the selected candidates are further called for an interview with the respective line manager. The candidates who pass the second stage of the interview are finally selected for the interview with the CXO's. After the final confirmation from the CXOs regarding the candidate, the finally clearance is offered for the position.

The induction procedure begins once a candidate accepts a job offer. Then, they meet with their team and receive an overview of the organization's mission, vision, and policies. Secondly, the new candidate is introduced to the entire team, and all documentation and process work for the employee's enrollment are completed individually. The employee is progressively granted access to the technical and ID systems, as well as the logistics. The employee is also introduced to the organization's various legal and policy frameworks.

2.3.3 Training and Development

Shuttle places a high value on personal growth and development. It is believed that if the employees grow, the company will grow rapidly. For Shuttle, on-the-job training has proven to be most effective over the years due to the fact that the skills and experience required for this job are somewhat unique to this industry. After the initial induction process has been

completed, the employee is introduced to the various functions and processes of the organization through a series of training sessions. It provides a very distinct view of the organization's procedures and how it conducts its various operations. Afterwards, the individual is assigned an actual job function to gain hands-on experience and knowledge. The essence of the company as a startup always compels individuals to think critically and develop novel solutions. Nonetheless, there are numerous knowledge and experience sharing sessions in which employees can share their experience with various business cases. In addition, there are individual seminars where employees can learn from their coworkers about a specific subject in which they have expertise. This allows the employees to share knowledge both within the team and across departments. In addition, employees are encouraged to enroll in various online courses through the LinkedIn collaboration platform.

2.3.4 Performance Review and Appraisal System

At Shuttle, performance evaluations are conducted annually in December due to the relevance of employee evaluations. Our Performance Review and Appraisal System is intended to provide constructive feedback, recognize achievements, identify areas for refinement, and align personal goals with organizational objectives. This system is intended to foster a culture of continuous refinement, engagement, and professional development. Our company's strategic objectives are aligned with each performance cycle's objectives, which are explicit, measurable, and attainable. In addition to providing guidance, support, and recognition, supervisors provide continuous feedback throughout the cycle. The company conducts a formal mid-year evaluation to assess progress, reinforce accomplishments, and make any necessary adjustments. A comprehensive performance evaluation is conducted at the end of the year, assessing accomplishments, growth opportunities, and adherence to core competencies and company values. The development of a plan outlining areas for improvement, training opportunities, and long-term career advancement follows the

evaluation. The confidential documentation of all performance-related discussions and evaluations serves as a historical record for future discussions and decisions.

2.4 Marketing Practices

2.4.1 SWOT Analysis

SWOT analysis is a strategic analysis of internal and external corporate objectives and performance. Using SWOT analysis, a business is able to determine what it does best, where it needs to develop, and the scope of potential future improvements. SWOT analysis tools analyze both internal and external aspects of a company. SWOT stands for, Strength Weakness, Opportunity, Threats.

The primary objective of a SWOT analysis is to identify and pursue new opportunities based on the company's strengths, while addressing its vulnerabilities and mitigating potential future threats.

Strengths:

- By leveraging technology, Shuttle is able to provide features such as real-time monitoring and cashless payments in addition to efficient matching algorithms.

- As a pioneer in Bangladesh's ride-sharing market, the company has established itself as a key player, benefiting from a strong brand presence and a rapidly expanding user base.

- Shuttle offers competitive pricing relative to typical transportation services, making it an attractive option for customers on a budget.

- Shuttle has a significant social impact and is committed to addressing gender-related transportation issues by putting women's safety first. This strategy has the potential to attract clients and investors who share the organization's mission.

- It prioritizes customer satisfaction and provides responsive customer service, resolving issues and enhancing the overall user experience.

- Shuttle Bangladesh is familiar with the local transportation landscape, including traffic patterns, popular routes, and customer preferences.

- Shuttle's mobile application provides an accessible and user-friendly platform for booking rides, thereby facilitating fast and simple access to transportation services. This enhances customer satisfaction and encourages repeat purchases.

- Passengers can evaluate their interactions with the company and provide insightful feedback about the chauffeurs, ensuring accountability and a commitment to continuous service quality enhancement.

Weakness:

- In Bangladesh's fiercely competitive ride-sharing market, numerous domestic and international companies are vying for market share. This makes it challenging for Shuttle to attract and retain customers.

- Accessing Shuttle's mobile application requires a stable internet connection, which may be problematic in areas with inconsistent network coverage or network outages.

- Depending on the dynamics of supply and demand, Shuttle may struggle to maintain an adequate supply of chauffeurs at all times. As a result, passengers may experience longer wait times or unmet demand during peak hours.

- Due to a dearth of vehicles, service coverage is limited. Shuttle is unable to satisfy client demand in a number of locations due to a lack of vehicles. Thus, potential consumers from these regions are lost.

Opportunities

- Shuttle may consider expanding its services to additional cities and regions in Bangladesh, thereby acquiring new customers and expanding its market reach.

- To capitalize on alternative revenue streams, the company may consider expanding its product line beyond ridesharing to include supper delivery and package delivery.

- Affiliation with local businesses, such as restaurants, hotels, or e-commerce platforms, could enhance Shuttle's service environment and increase the value it provides to customers.

- Shuttle can expand their business strategy by offering pick-up and drop-off services at schools and hospitals. This will apply not only to businesses, but also to students and medical professionals.

- Shuttle may consider adding electric vehicles to its fleet in order to portray itself as an eco-friendly mode of transportation, given the increased awareness of environmental sustainability.

Threats

- Well-established domestic and international competitors threaten Shuttle's market share. Driver dissatisfaction, employee attrition, and competition from other ride-sharing services are just a few of the variables that can affect Shuttle's ability to deliver dependable service. competitors, demanding ongoing efforts to differentiate and retain consumers.

- Maintaining confidence and mitigating the risks associated with ride-sharing services requires assuring passenger safety and addressing any potential security flaws.

- A decline in demand for ride-sharing services may result from economic downturns or fluctuations in disposable income, which may affect consumer purchasing patterns.

- Keeping a sufficient supply of competent and dependable drivers may be challenging. Driver dissatisfaction, employee attrition, and competition from other ride-sharing

services are just a few of the variables that can affect Shuttle's ability to deliver dependable service.

● When competitors engage in unethical behavior by offering financial incentives to vendors and vehicle owners to transfer to their organizations, there is a significant risk involved.

● Natural disasters, political unrest, and civil unrest are examples of factors that can disrupt transportation systems and impact Shuttle operations. Such external disruptions must be planned for, and their effects must be minimized, for the business to be resilient.

● Negative incidents or public controversies involving ride-sharing services in general or Shuttle in particular may result in a negative public perception of these services. Maintaining customer confidence requires managing public relations and addressing any reputational damage.

2.4.2 Porter's Five forces

Competition in the Industry: The major factor to evaluate among the five is the level of competition and its impact on a company's position. As the number of competitors and similar offerings grows, so does a company's influence. Currently, there are multiple rivals in Bangladesh's ride-sharing business, requiring Shuttle to continually provide high-quality service at reasonable pricing. Failure to do so may cause clients to migrate to competitors, even if Shuttle has technological advantages in addition to their services.

Potential of new entrants into the industry: The impact of new market entrants can have an impact on a company's strength. The less time and money it takes for a competitor to join the market and establish itself, the more vulnerable an established company becomes. Because of

its superior software and technological advantages, the chance of new entrants is relatively minimal for Shuttle. Traditional transportation services, on the other hand, remain a possible danger.

Power of Suppliers: The five-force model addresses the rate at which suppliers can increase input costs. If vehicle procurement is delayed, the service may be disrupted. In the event that vehicle vendors raise their pricing, Shuttle may be forced to find alternate vendors or offer backup vehicles at a greater cost. This component necessitates meticulous management to ensure smooth operations and competitiveness.

Power of Customers: Customer bargaining power, or their level of control over prices, is one of Porter's five forces. The total number of customers or buyers a company has, the value of each customer, and the expense of luring in new clients or expanding into new markets are factors that affect this power. Customers are important to Shuttle in the ride-sharing or transportation market. Customers can quickly move to other providers that offer better quality or lower pricing now that they have a variety of options. As a result, Shuttle must ensure that they give the highest quality service at the most reasonable costs in order to keep their customer base and attract new users. This customer-centric strategy is critical for maintaining a strong market position and staying ahead of the competition.

Threats of Substitutes: Due to the availability of alternative forms of transportation, Shuttle faces a serious challenge from replacement transportation services. The emergence of substitute choices in this setting poses a significant risk to Shuttle's market position.

Chapter 3: Project Part

The project on the technology-based Fleet Management System was a very crucial one that was initiated to cater to the requirements of HSBC Bank. For a startup like Shuttle Technologies BD Ltd., it is crucial that the company leverage its technical aspects to provide new and innovative solutions to its clients. This system was developed with a view to offering the client a more customized 360- degree experience in the field of Fleet Management.

3.1 Background of the Project

HSBC, a prestigious multinational bank, has utilized Shuttle's services for over two years to facilitate the transportation of its employees. Initially, HSBC Bangladesh encountered numerous obstacles in managing their transportation system, necessitating a sizable team to effectively supervise operations. Vehicle allocation, monitoring of availability, and billing for various cost centers became increasingly complex. HSBC approached Shuttle, their existing transportation support provider, for a technological solution to these problems. This resulted in the launch of the "Technology-based Fleet Management and Booking System" project. Through an automated platform, the initiative intends to streamline vehicle management, including sedans, microcars, and other fleet categories. In addition, an interactive mobile application was created to facilitate communication between users and chauffeurs. As the project manager, I was instrumental in ensuring the successful execution of this initiative.

3.2 Objective of the Project

The primary goal of the initiative was to establish a centralized system that would effectively allocate, monitor, and manage the costs associated with HSBC's day-to-day fleet of vehicles.

By implementing this system, the project intended to streamline the allocation of vehicles, track their utilization, and accurately assign costs based on usage patterns. In addition, one of the primary objectives of the initiative was to collect data that would permit the analysis of carbon emissions produced by the vehicles. This analysis would provide HSBC with valuable insights, enabling them to implement measures that substantially reduce their carbon footprint. The ultimate goal of the project was to increase fleet management efficiency by implementing an automated system that would allocate resources, monitor usage, analyze data, and generate accurate billing information.

Through the creation of a centralized platform, the project aimed to streamline and automate the entire fleet management process, ensuring seamless coordination between HSBC, Shuttle, and other stakeholders. This would allow HSBC to make informed decisions and optimize resource allocation.

3.4 Initiating the Project

During the inception stage, the project's objectives and scope were defined, as is customary in the first stage of the project management life cycle. My duties in this stage included consulting with relevant parties, performing initial analyses, and outlining the project's big picture as well as HSBC's and Shuttle's desired results.

To ensure the project stays on track and that everyone involved has a shared understanding of its development, a schedule was also created. To define the project's outcomes and evaluate its viability, I collaborated extensively with the project's stakeholders. As part of my responsibilities, I was also able to keep all parties involved informed and engaged as to the status of the necessary management approvals on both sides.

3.4 Developing the Project Plan

The participation of important stakeholders in the planning phase ensured that their perspectives and needs were considered. This collaborative strategy facilitated a more inclusive and comprehensive project plan, thereby increasing the likelihood of successful execution. Regular online and offline meetings were held throughout the initiation phase to facilitate effective communication and maintain alignment among all relevant parties. These interactions served as a forum for addressing any issues, gathering feedback, and modifying the project plan as necessary.

Overall, this plan served as a road map, outlining the specific tasks, timelines, and deliverables required to achieve the project's objectives, thereby laying the groundwork for the subsequent phases of the project lifecycle.

3.5 Project Execution

The execution phase commenced upon affirmation of the project charter and receipt of the client's final approval. This phase involved extensive internal work with a team of developers and the Shuttle Product Manager. For the overall development of the project, we scheduled both daily and weekly direction-setting meetings. Regular meetings were held to monitor the project's progress and identify any deviations or delays that were delaying the project or if there was a dependency with the stakeholders. During this phase, I closely monitored the project schedule and had to resolve a number of obstacles that could have impeded its progress. In addition, I was required to seek sanction for additional resources when necessary and reduce expenses whenever possible. Approximately four weeks were required to conclude the project execution phase. Before the features were released to the public, the final phase of execution consisted of various internal tests.

This phase also involved some feedback from the digital services team at HSBC to check if

the solution they were aiming to achieve was on track or not and if there were any significant iterations needed. It was a very challenging stage of the project where many suggestions were added that had not been mentioned earlier, and this had to be resolved upon mutual discussion and subsequent meetings between the product manager, the project manager, the digital services team SPOC, and representatives from the IT department of HSBC. There were mainly three basic categories of testing to validate functionality, performance, and reliability. Functional testing, integration testing, and system testing were scheduled to identify and resolve any bugs or issues that were prevalent in the system. A team of 2 individuals was constantly working on the bug fixes, and 3 people were assigned to test it. After successful completion, being tested internally among the employees of Shuttle to check the load testing and traffic handling capacity of the server, the drivers were given the app to use it for once at a definite time to check if the entire system could process all the information and features used by a large audience. This entire task was fully coordinated by the team working behind it on the weekend to ensure that all the stakeholders required for the testing were met. Additionally, there were sources from the tech team who were working to solve various types of bugs and issues that were coming up in app operations. I had to meticulously plan and coordinate with all the relevant parties so that this phase could be carried out without any type of unplanned occurrences.

3.6 Project Handover and Closing

The handover phase commenced with a series of User Acceptance Testing (UAT) sessions conducted by the Subject Matter Experts (SMEs). The test cases were executed as planned, and any identified issues were promptly addressed through bug fixes. My role during this phase was to coordinate and facilitate the UAT sessions, ensuring that the Use Cases were thoroughly tested without any hindrances. Following the UAT testing, we organized End User Training sessions to familiarize users with the system's various functionalities. Working

closely with Shuttle's Tech Team, I assisted in creating user-friendly materials to simplify the learning process. Additionally, I collaborated with HSBC's Digital Services Team to schedule the training sessions based on user preferences, ensuring their convenience and participation. Following the project's successful completion, a formal handover to HSBC took place, along with a closing ceremony and dinner to mark the project's end. During this phase, we established Standard Operating Procedures (SOPs) outlining how HSBC would receive ongoing services after the project phase concluded. The Digital Services Team at HSBC implemented a ticketing system to handle any problems or service requests, categorizing them according to urgency. Shuttle's Technical Team responded accordingly to these requests. Following the formal handover to the client, meticulous documentation was carried out, and an impact study was conducted and submitted before the project's final closure from Shuttle's end. I closely collaborated with the Business Analyst in preparing these documents, ensuring clarity. After the formal submission of all of the documents, the responsibilities were handed over to the management, and specific roles were assigned from the Tech team for offshore support for server related issues and issue management systems.

Chapter 4 : Recommendations

There is potential for improvement in the tech-based fleet management system I designed during my internship, but it has laid a solid foundation. I think it would be wise to look into adding new capabilities to the system in order to boost its performance. Incorporating real-time data streams, using predictive analytics to schedule maintenance, or utilizing sophisticated reporting tools are all examples of this. I suggest actively collecting feedback from end-users of HSBC to make sure the system fulfills the unique requirements of the fleet management business. You can learn a lot about their experiences and expectations through surveys, interviews, and usability tests. Take this critique into account when designing future updates to the system. Furthermore, I suggest planning for expansion by making room for more cars, drivers, and features. Modular architecture design, cloud computing for scalability, and open standards adoption are all viable options for keeping up with the rapid pace of technological change. Due to the sensitive nature of fleet management information, it is essential that all aspects of the system be designed with security and privacy in mind. To prevent unwanted access, you should create strong authentication and authorization mechanisms and perform frequent security audits.

Providing thorough documentation is crucial to the Fleet Management System's lifetime and maintainability. Technical documentation, user guides, and directions for system administrators should be written in great depth. In addition, make it easier to share information by setting up training sessions or workshops for future developers or support personnel who will play a role in the system's maintenance and extension.

It is crucial to set up a mechanism for the Automated Fleet Management System's ongoing monitoring and maintenance. For early detection of system problems, performance

bottlenecks, and security holes, I suggest using monitoring tools. Update software, patch

bugs, and optimize databases as needed to keep the system running smoothly and error-free.

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