An Investigation into The Use of Software for Vehicle Booking Systems For Dap's Airport Travel

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1. Intro to the business & Problem

Dap's airport travel is a self-employed taxi and mini-bus hire which was founded in 2016 by Michael Davies in Neath, Neath Port Talbot, West Glamorgan, South Wales. The business is currently being run from Michael's home via paper booking forms, filled in by Michael via customer request over the phone and then manually typed and saved into a spread-sheet on his computer system. Due to increased business demand, the company is now considering software to help manage the bookings.

2. Aims and Objective

To be successful, the project needs to:

- Automate Business Processes
- Advertise the services
- Have secure accounts
- View/Amend/Delete Bookings (Managers)

3. Literature Review Findings and Decisions

Application Software— Complicated to use and still manual input

Visual Basic—Too bland and does not promote well

Off-the-shelf—Still manual input and limited to design

Web Application—Meets all requirements

Mike should use a web application to replace and improve his current system which will help to make Dap's Airport Travel a more flexible business process which will not have so much of a disturbance to Mike's personal life and will allow customers to make bookings any time at their own leisure as well as researching the business to look at their services and learn more about Mike and the business before committing to booking.

4. Programming Languages, Database and IDE

- **Programming Languages–** As it's a website, the HTML/CSS language is going to be used. To connect to the database, the PHP language will be used due to its increased flexibility, popularity and support over ASP.NET and C++
- **IDE –** ATOM was chosen to program the software due to free licensing and capability to support various programming languages
- **Database –** The database package that was opted to be used was MySQL. This was chosen because its easier to work with, handles up to 250million rows of data and also a better chance of finding an ISP to support it due to its popularity

5. Results/Conclusions

- **Computerised/Automated Business Processes -** Customers can now make a booking online any time of day and night which means Mike no longer has to do it himself in his own time
- **Secure -** Customers/Managers have their own credentials to access their own data/bookings.
- **Entity Relationship Diagram –** This helped the developer to understand how the system tables and their relationships should be created.
- **Bug Testing –** This ensured there was no bugs and made sure validation meant bugs can be avoided
- **User Acceptance Testing -** A potential user used the site and gave feedback to accept the site and give improvement recommendations
- **Completed within deadline -** The site was developed 2 weeks before the stated deadline, which left time for improvements and further documentation if needed.

6. Improvements for Future Developments

If I was to do this work again, I would implement the following improvements:

- **Price Quotes** — Implement a feature to show customers the price before booking
- **Google Maps—**Implement a Google Map to show the proposed route and calculate costs based on cost per mile
- **Booking Overview—**For the customers to view their bookings
- **Online Payments—**For customers to pay in advance







