“NASA-TLX is a multi-dimensional scale designed to obtain workload estimates from one or more operators while they are performing a task or immediately afterwards” (Hart and Field, 2006). As a need for a quantifiable method to measure “workload”, Hart et al created the NASA TLX in 1988 and consists of six subscales to measure workload: Mental, Physical, and Temporal Demands, Frustration, Effort, and Performance. The task involves two parts – weighting and rating.

1. Weighting section – participants are shown 15 subscale comparison cards. The participant is asked to compare 2 subscales on each card and tell the researcher which one was most important to their experience during the task. As a way to reduce paper usage, the 15 subscale comparisons were combined into a 3 by 5 table and participants were asked to circle the subscale that was most significant to them in each box. This is can be seen in Appendix 8. 2. Rating section – this section shows each participant the 6 subscales and asks them to mark an X on the appropriate point that they feel matches their experience. Each line has two points from low on the left to high on the right. Subscale Performance has a scale of good on the left and bad on the right. The scale increments by 5 on each line. Scale is 0-100. This can be seen in Appendix 9.

The weighting and rating are multiplied for each subscale to form an Adjusted Rating for that subscale. Then all Adjusted Ratings are totalled up and the total is then divided by 15 to gain the Task Load Index score or rating for that task. The template used to calculate the scores can be seen in Appendix 10.

6.1 Tasks To evaluate the website for Restaurant X, five participants were recruited to conduct a series of eight tasks. These tasks were as follows:

Task Instruction User – Register as a member To register themselves on the website User – Login to website After registering themselves, the participants were logged out and were then required to log back in to the website User – Submit a contact form Participants were required to fill out the contact form and submit it User – Booking a table The participants were required to visit the “Book a Table” page and fill in the form and submit their request to book a table User – Make an order online The participants were required to visit the “Order Online” page and add items into their cart then proceed to visit their cart and check out Admin – Users The participants were asked to act as an administrator and visit the Admin site. They were then asked to find the list of current registered users and edit the username and email address of one of the users Admin – Bookings Acting as an administrator, the participants were asked to visit the list of bookings. They were asked to change the number of people and the time slot on one of the bookings Admin – Orders Acting as an administrator, the participants were asked to visit the list of orders. They were asked to change the address and tick the “paid” option on one of the orders

30

6.2 NASA TLX Once participants had completed each task, they were asked to complete the two parts of the NASA TLX. Figure 39 gives a visual representation of the average score of each task of all 5 participants.

For the purposes of this project, the researcher has deemed any task with a score below 20 to be as acceptable. It can be seen from the graph that the majority of tasks scored around 12. The highest score was 15.9 (Booking) while the lowest score was Admin – order with a score of 10.04. As all average scores are below 20, the tasks given to participants were relatively easy to complete. This shows a positive sign as users were able to fulfil the requirements specifications and use cases set out in Chapter 3 and it is an indication that the website is intuitive and easy to use.

6.3 Additional Feedback As well as completing the NASA TLX tasks, participants were also given the option to provide comments and feedback on any of the features of the website they had come across. Two participants made a comment that there did not appear to be a confirmation after a booking was made therefore giving no indication if the booking had been processed and accepted. This was an oversight whilst developing the booking system section and therefore a confirmation page was implemented to provide an indication to the user that their booking had been successfully processed.

One participant had mentioned that during the “make an order online” task that they would prefer if the user was redirected back to the list of products rather than directed straight to the cart after each item was added. This could be seen as frustration for the user as it did mean extra steps to get back to the product list just to add another product to their cart. Therefore, this was changed so that users would be redirected back to the list of products page after an item was added to the car