FIT2001: Systems Development – Workshop 8
Support Material

Activity 1: Review Quiz

Q1. Prototyping is something done just by the development team
A) True
B) False
Prototyping is best done in collaboration with stakeholders – often users will sit with developers as they create the mock-ups

Q2. When you prototype you always start from scratch
A) True
B) False
While you can start from scratch it is a waste of time, because if possible you should use templates provided by the software, or company created templates to speed up the prototyping process.

Q3. When prototyping it is important to build realistic, high-fidelity prototypes
A) True
B) False
No, while it can be useful the main aim of the prototypes is to get an understanding of the user requirements and to confirm the design. If that can be done quickly and cheaply with low or medium fidelity prototypes that is what should be done. However, when conducting training high fidelity prototypes can be very useful.

Q4. It is important to explain to users that the prototype is just a mock up and not the real solution
A) True
B) False
Yes it is important to set expectations, otherwise especially with high fidelity prototypes that look like the real system, users get very excited and can think that the system is completed, and then get very frustrated when they find out that it is not yet done.

Q5. Usability evaluations that takes place during development are:
A) Formative
B) Summative
Formative evaluations *are conducted during development, and focus on user identifying usability issues with a view to improving the final product.*
Summative evaluations *are conducted after the system has gone live, and often involves watching the user using the system to identify usability issues.*
A way to remember which comes first   F – formative – first, S – summative – second.

Q6. What criteria should you apply when selecting test participants for usability testing?

A) The testers should all be demographically similar to each other

B) It doesn't matter because everyone offers feedback based on their experience

C) The testers should all be random and be unfamiliar with the task

D) The test subjects should resemble the user pool as much as possible

You always want the test pool to match as closely as possible the actual users who are going to use the system.

Activity 2: Usability Review

- Task: Class review and discussion of the usability of specified functions of the Airbnb site using the following 5 criteria:
  - **Learnability**: How easy is it for users to accomplish basic tasks the first time they encounter the design?
  - **Efficiency**: Once users have learned the design, how quickly can they perform tasks?
  - **Memorability**: When users return to the design after a period of not using it, how easily can they reestablish proficiency?
  - **Errors**: How many errors do users make, how severe are these errors, and how easily can they recover from the errors?
  - **Satisfaction**: How pleasant is it to use the design?
- For further practice, consider reviewing the following sites in your own time:
  - https://www.budget.com.au/
  - https://www.lingscars.com/

A2 Discussion

Some sites discussion of Airbnb design and usability – please note that this may not reflect the Airbnb site as it is now, as the design is frequently updated.

- https://medium.com/@ws.hepworth/reflecting-on-the-usability-and-accessibility-of-airbnb-94ad2941be5e
- https://uxdesign.cc/how-airbnb-drives-users-actions-with-their-landing-page-design-a-ux-analysis-d99effa9f536
- https://www.nngroup.com/articles/3-user-experiences-reshaping-industries/   - the second case

Activity 3: Functionality and Usability Review

- Work with your Assignment Team members in a breakout room
- Task: A new graduate has just joined your organisation and has created a series of mock-ups for the Pick-up and Delivery function for On the Spot Courier Services. She has contacted you – the HCI expert in the organisation, to review the functionality and usability of the mock-ups before she shows them to the client:
    - Does it meet the business requirements? What is missing?
    - Are the prototypes usable? How would you improve the usability?
    - Be prepared to report on the business functionality and usability and your recommendations for addressing them.
    - **NOTE – Consider using the questions on this site to help with assessing your usability <https://econsultancy.com/67-questions-usability-testing-can-answer/>** (~35 minutes)

    - Class discussion of functionality and usability of the prototypes (~35 minutes)

Activity 3 Discussion:

Please note. Discussion Support Information documents are not solutions and are only provided as an aid to support the discussion you engaged in during your tutorials.

Review of Prototypes General Comments:

Was it easy to review the prototypes of the system?

It was incredibly confusing and difficult to review the prototypes because:
- They were not labelled
- There were a number of interfaces missing
- There were duplicate interfaces
- There was no explanation of the sequence of events – how to walkthrough the screens
- There were multiple spelling mistakes which, while not an issue for HCI, was still unprofessional

The way the interfaces were provided made it difficult to provide high quality feedback.

IMPORTANT NOTE: Many students provide their interfaces in this way for their Assignment. As you would have noticed yourself, this makes it exceptionally difficult to understand. Please make sure that you provide a concise, clear explanation of each screen. The screens should be clearly identified, and the sequence of events from screen to screen should be clearly explained

Basic current system functionality for On the Spot Courier Services

When Bill Wiley receives a request for pickup, he enters the pickup information on a form and processes the payment. If the payment is approved, he contacts his courier staff with the pick-up and delivery information. When they pick up the package, they ring Bill to inform him that they have picked up the package and he notes it on the form. They also ring him when the package is delivered, which Bill also notes on the form. The package has to be signed by an approved person before it is delivered.

Proposed system functionality - Notes from first interview with Bill Wiley

Bill wants his customers to be able to get a quote for their job instantly online, and if they are happy with the quote, they should be able to make their booking – they should not have to re-enter all their details. Customers should also be able to make a booking without getting a quote. They should also be able to modify and cancel their booking up to 12 hours before the pickup time. Jobs should be paid in full online using either credit card or PayPal. He would like his customers to have the option to track their delivery.

Bill is keen to know about all bookings, so while the business is still small, he wants to get an SMS for every new booking made, and also if the booking has been modified or cancelled. He also wants to be able to answer any queries about any booking if a customer rings the company. He is also very keen to know if there is an issue with a job e.g. If the goods have not been picked or delivered at the specified time, the goods can't be delivered because the approved person is not there, etc.

Once a booking is made, Bill would like the system to automatically allocate the booking to one of his couriers based on their current bookings, and he wants to know as soon as a courier is close to capacity on a given day, as he may have to organise additional casual couriers.

It is very important that the system makes it easy for the couriers to access all the information they require on their mobiles. They should be able to see their schedule, and any additions or changes to the schedule should be highlighted until confirmed by them. They should also be notified by SMS and email when there are any additions or changes to their schedule. Bill wants to be able to view the schedules and see what jobs have not been confirmed.

Couriers should be able to easily confirm the time that they have picked up /delivered the goods for a job, and be able to note any issues. They should also be able to just click on the address of their next stop and it should automatically show the quickest route from their current stop, on their phone GPS.
Bill would also like to know how the business is going, so he wants to track for any time period:
- Conversion rate of quote requests to confirmed booking
- Booking income
- Punctuality rates of his couriers

Bill is hoping to have lots of repeat customers, so he does not want to see the full list of all the bookings for each customer. He wants them ordered so that the most recent are first and it is easy to find a particular booking, and maybe anything older than a year should be filed.

Bill would also like a 'Frequently asked questions' section, where customers can find out information like the areas that the company covers, and the types of goods – dimensions, etc. they are willing to deliver.

Screen 1.
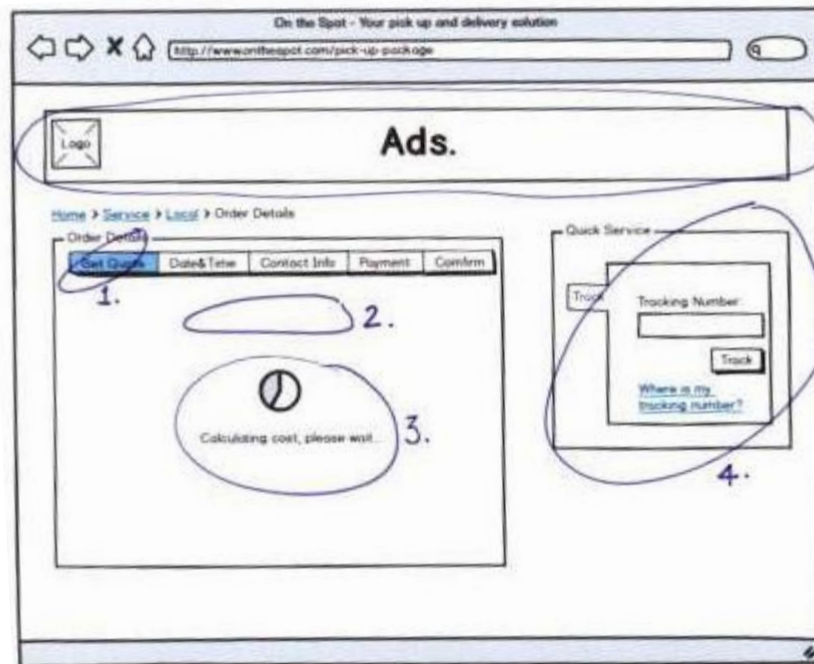
1. When a customer visits the website of 'On the Spot Couriers', they have come to do one of the following functions:
   a. Get a quote on a job they would like done
   b. Book a job, and possibly edit or cancel a job
   c. Track a job
   d. Manage their customer account

   There should be an interface that allows them to clearly see these major functions. They should not have to search for them. The 'Get Quote' function is hidden within the tabs, and immersed within the ordering function.
2. There does not appear to be an interface for the 'Get Quote' function. This functionality is not trivial so it should definitely be included. What should it include? You need to think about the bare minimum information that the system requires to provide an accurate quote. This would include:
   a. Pickup suburb and Delivery suburb – not postcodes. A user is far more likely to know the suburbs rather than the postcode. The street details would not be necessary for a quote.
   b. Details of the goods – all details that are going to make a difference to the cost

  c. Pickup / Delivery date and time – required for 2 purposes:
    i. Can the company do the job? It would be very frustrating to get a quote but then find out when you went to book the job that the company could not do it. You should do availability check at the time of providing the quote.
    ii. The prices may vary based on the day (public holiday, weekends may be different rates), time (urgent deliveries may be different)
  d. Insurance requirements
3. The 'calculating cost' provides feedback to the customer (Good)
4. Tracking – irrelevant and not possible at this point, but appears on every screen.
5. The Company Logo takes up a great deal of screen space – fine for the main page, but not necessary for all the detailed pages – a small logo would suffi

Screen 2.

6. 'Date and time' – not an appropriate tab heading, possibly 'Check Availability'
7. 'Total cost' is shown after the quote (Good), but it should stand out a bit more – the font size should be a bit bigger.
8. 'Check availability' clearly states what happens when the customer clicks the button (Good), but the position to the side makes the screen look unbalanced.
9. No clear Exit/Cancel path shown.

Screen 3.

(See Screen 2 – 7, 8)

10. 'Available' - Clearly shows the next path, but the question is 'Continue to Contact Info?' which is not a meaningful function for the customer, it should be something like 'Book Job'.

Screen 4.
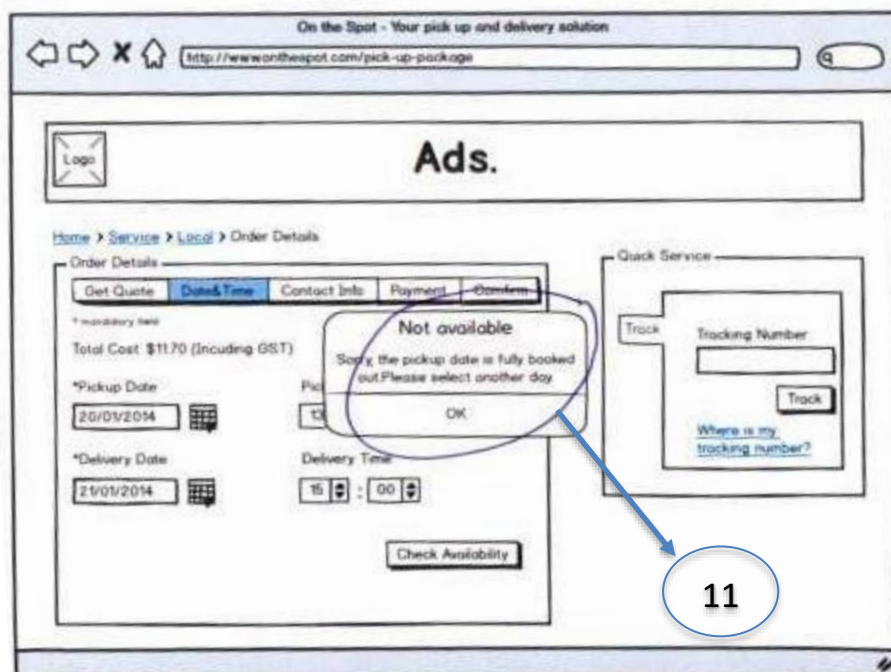
11. Message is clear, and tells you what to do next. However, what happens if you do not want to select another day? If you click 'OK', you cannot Exit, as there is no Cancel from the Date/Time screen.

Screen 5.

(See Screen 1 – 1, 4)

12. Breadcrumbs on screen (Good), shows the customer exactly where they are in the process
13. TABS – Are they a good idea? Depends on the amount of information to be displayed on the screen. It is generally much easier for the customer if all information is displayed on the one screen, providing it is well laid out and not cluttered. There is an overkill with the use of tabs in this system, which has limited information. It would have been more useful to reduce the logo size and remove the   irrelevant 'Quick Service Tracking' facility, so that there is more screen space.
14. Alignment terrible – makes it very difficult to view
15. Box around the data entry area with 'Order Details' header (Good). It clearly defines the work area.
16. 'Suburb' – key field missing, Contact name and details – key field missing …. These may be different to the Sender and Receiver details.
17. 'Postcode' – Display only field as it is worked out from the suburb – except that there was not a suburb entered? Why is there help? For the postcode field?
18. 'Name' field entry not set up to encourage correct entry – should be Last Name and First names. What if it is a Company?
19. What if the address is a PO Box?
20. Should the format for the phone number be provided? Not if the courier service is Victoria only. However, if it is national, then the format should be provided.
21. No 'Cancel' or 'Exit' or 'Back' provided

Screen 6.

22. Payment / Confirmation should be on the same screen. You want your payment confirmed on the screen you have entered your data.
23. 'Total Cost' displayed before payment, so you know exactly what you are paying.
24. 'Pay now' options not detailed – have to go to the drop down box to see if option like PayPal is available. The 'MasterCard' option is under the 'Pay on Receiving' which is visually confusing.
25. Expiry Date – should be month and year, not day and month.
26. CSV code – Help provided if you don't know what it is or where to find it (Good)

Screen 7.

27. When 'Pay on Receiving' option selected, can still see 'Pay now' options. Even though greyed out, still shows that they are mandatory. If 'Pay on Receiving' option selected should provide feedback as to the options available to pay the courier – Cash on delivery, Credit card payment, Cheque, etc.

Screens 8 & 9.

28. Need to scroll down to see all the job information, which makes it much more difficult for the customer. Removing the logo/ads and Quick Service Box would create enough room to display all the information.
29. Entry boxes are greyed out, so cannot edit errors at this point which you should be able to do before confirmation.
30. Should have a clear Cancel/Exit option at this point, if you do not want to go ahead with the Confirmation. What exactly is 'Clear' used for at this point? Does it clear all the entries? What about the fact that you have already made your payment at this point … or have you?
31. Tracking service – Good idea to display the tracking information after Confirmation. Must display the tracking no. – Possibly send it via email, if the email details are captured.

Screen 10.
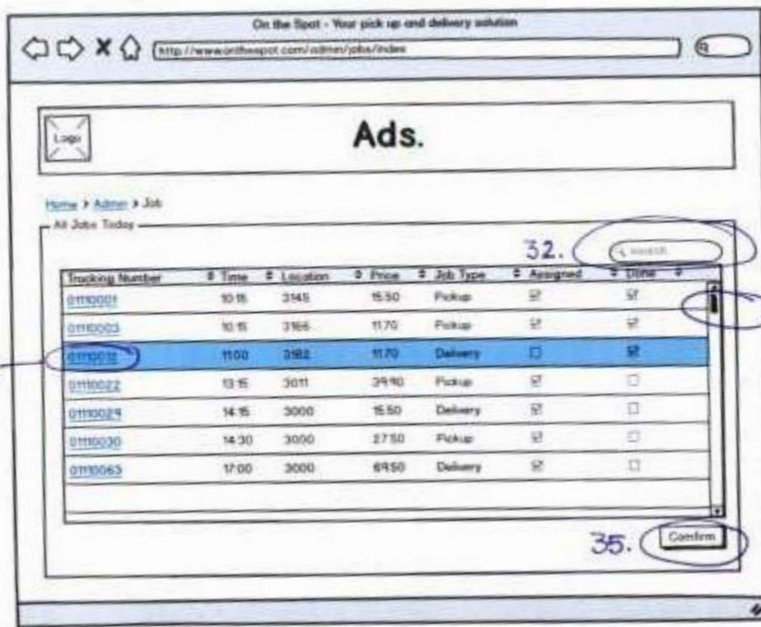
32. General 'Search' function very useful generally, however, if this is just about jobs it may be useful just to enter the Tracking no. What if the Tracking no. is not known? It would be useful to enter the Name of the person who has organised the job, so that you can search on name – however, the name would have to be displayed in the table.
33. Pagination rather than Scrolling would be more useful in this instance.
34. You can visually see that the tracking no. is a link that can be clicked on to see the details – this is fine for an admin. User who would be using the system frequently. For a casual user may need to have a 'View' button.
35. What exactly does the 'Confirm' button do on this Screen?

Screen 11.

36. The term 'Detail' in the breadcrumbs is meaningless. The headings should all be meaningful.
37. What is this table? What information does it provide? If it is about a job there is no heading identifying it as such … it appears to be all the different stages of the job.
38. Can a job be 'marked as done' if a courier has not been assigned to deliver the job?
39. Can a job that has already started be deleted?
40. What does 'Confirm' do?

Screen 12.
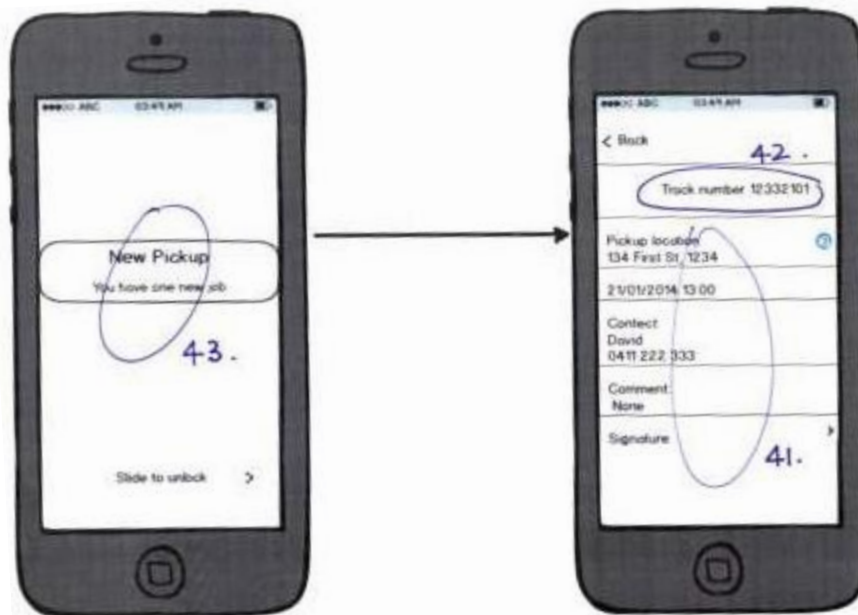
41. Generally does not provide all the required information, would need specific and overview information.
42. Tracking no. not aligned.
43. New pickup alert good idea.

Usability Discussion:

Because of the many, many issues with the prototype capturing the basic functionality of the system, and because the interfaces were not interactive and there were no usage instructions provided, it was very difficult to conduct either a formative or summative evaluation on the prototypes. It appears that the system is not easily 'learnable' as the users would not be able to achieve their basic business functionality, and would always be trying to work out whether they could complete the functions. Because of this issue, 'efficiency' is not possible as they would be struggling trying to work out what to do next, and why there were bits missing, and as a result it would be very 'unpleasant' to use the system. At this stage memorability and error handling cannot easily be assessed.