

User-centred design – Assignment 1

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ServiceM8 – Job management for trades and services



SERVICEM8

Part 1 – Analysis of application

Introduction

The purpose of this section is to analyse the usability of the Service M8 mobile application for Job management for trades and services on iOS. The app is designed for job tracking, material listings, invoices amongst many others on the road so in theory a mobile office. The main features include customer tracking, job tracking and employee tracking with the ability to create, schedule, find and complete jobs. All information is saved so can be looked back upon and all jobs are tracked for materials used and hours on jobsite with the inclusion to save photos of before and after as well as on the spot invoicing for easier payment options. The application is available only on iOS on either tablet or mobile device but also has a web-browser based dashboard.

In the following report it will focus on employee and customer relation with the ability to book jobs as well as complete the job information within the application. The results will allow feedback on the current functionality for its ease of use, design and what improvements could be made within also the choice limitations for employees with the device it is available for. Being that the application has a specific targeted audience for the main use this being 'tradesman' the expectation that it is very easy to use is a defining factor as well as being a subscription service with additional costs a high usability is expected.

<https://support.servicem8.com/hc/en-us>

Part 1.1 user groups and attributes

The following listings will have the same basic attributes of the ability to use a mobile device app. Questions within the first part of the survey will ask of this ability and from that can denote how user friendly the application is for people of varying skill level.

	G1 – Employer/Head office/senior staff	G2 – Employee's/contracted staff	G3- Office staff – no prior experience
Attributes	<ul style="list-style-type: none"> • Main Account holder/access to main account preferences • 18-70 • Professional • Staff of 1 or more • Full app use features • Knowledge of database • Knowledge of invoicing • Likes to track all movements in company 	<ul style="list-style-type: none"> • Has access to account via the main account holder • 16-40 • Professional/trainee • Ability to use most features • Basic knowledge invoicing • Basic knowledge of databases 	<ul style="list-style-type: none"> • Has access to account via the main account holder • 16-40 • Has basic knowledge of entering information • Any background • intermediate knowledge invoicing • Intermediate knowledge of databases
Tasks	<ul style="list-style-type: none"> • Regular job tracking and allocation • Using the database to create and send invoices • Allocating jobs created by customer • Creating jobs that are otherwise obtained • Checking all information has been entered by G2 • Updating customer information 	<ul style="list-style-type: none"> • Checking job changes and schedules • Completing listed jobs entering in materials and if needed times (auto-tracks usually) • Obtaining client sign offs • Looking at customer information for contact information 	<ul style="list-style-type: none"> • Checking updates for job scheduling • Regular job tracking and allocation • Checking all information has been entered by G2 • Updating customer information

Part 1.2 – Main Tasks

The following are the backbone of the main tasks that make the application desirable. The analysis and survey will look at these tasks only as the more advanced features within the application may not be used by most as the survey will also show.

Entering job details

The app requires that for a job to be entered a customer must exist for it to be allocated to. This can be done by multiply methods 1 being the customer creates their own through the online enquiry link, another is to enter it through the main screen prior to making the job, and the last is to create it while creating the job itself. The customer requires a minimum a name with the following desirable to complete the basic list name, email, job address, contact number. In effect it works well for the schema of the DBM it uses, names do not need to be unique however the customer can also have many different job addresses. Not an overall hinderance however for tasks in between jobs that are to be scheduled outside the scope of customers like doctor appointments, car services and all other misc. items require a customer ID also so a Misc. can be made however if there are many miscellaneous items that are being edited between the changes follow through so must use multiple customers ids.

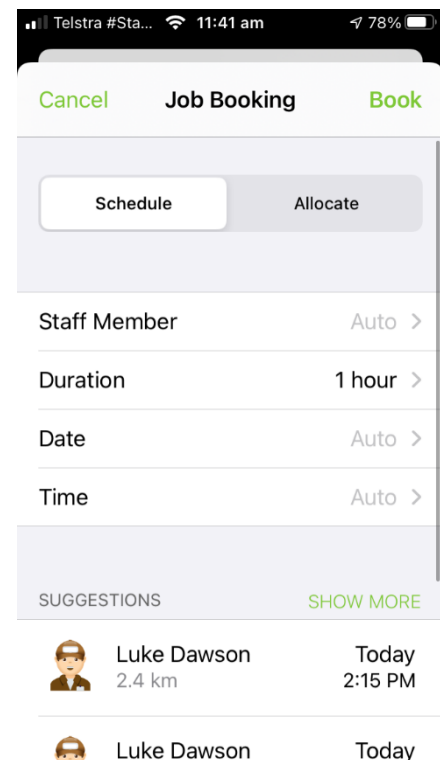
The image displays two screenshots of a mobile application interface for entering job details. Both screenshots show a status bar at the top with 'Telstra #Sta...', '11:40 am', and '78%' battery.

Left Screenshot: The form is titled 'New Job #11122'. It has three main sections: 'CLIENT NAME' with a text input field, 'JOB ADDRESS' with a text input field, and 'CONTACT DETAILS' which includes fields for 'Job Contact', 'Email', 'Phone', and 'Mobile'. A 'Skip any details that are not required' option is at the bottom.

Right Screenshot: This is a scroll-down view of the same form. It shows the 'Phone' and 'Mobile' fields. Below them is a 'JOB DESCRIPTION' section with a text input field. At the bottom is a 'JOB DETAILS' section with 'Status' (set to 'Quote') and 'Category' (set to 'No Category').

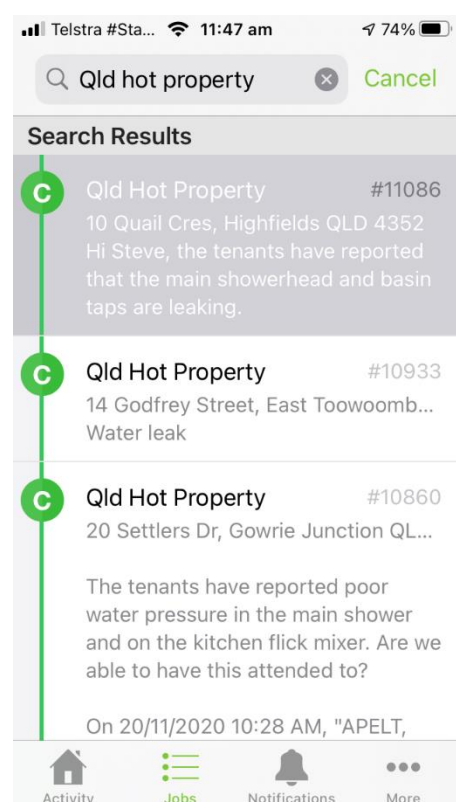
Scheduling Jobs

The jobs created in the previous Task can be scheduled in many ways. Each job can have a listing of Quote, work order, completed and unsuccessful. No matter the status the job can be scheduled to a user with a date and time, barring this the job can sit in multiple different areas including un-scheduled for a certain day as well as listing on work-orders (uncomplete jobs) in general.



Inquiring previous/current jobs

A main feature is the ability to search all jobs that have ever been created, this search can be from the fields entered by customer names job address or anything the user wishes, and matches will result. From this the user can look back to see what previous issues were and the results or can look ahead in the week to see what items one may require prior to heading to the site. This option is by far the most important feature as all jobs will be kept in an easy-to-use searchable database for as long as the user uses the application.



Completion of jobs

Once a job has been given the status of complete an invoice will self-generate from the database. These items can be edited and changed at any time and the invoice will change to suit the new entered details. This allows for on the spot invoicing for upfront payments as well as making future invoicing easier to be complete. If the database and price lists are up to date this feature is usable by both employer and employee.

Telstra #Sta... 11:41 am 78%

< Job Billing Produce

No Work Completed

+ Add Item/Service

Sub-Total	\$0.00
GST	\$0.00
Total	\$0.00
+ Amount Paid	\$0.00
Balance Due	\$0.00

Quote Invoice

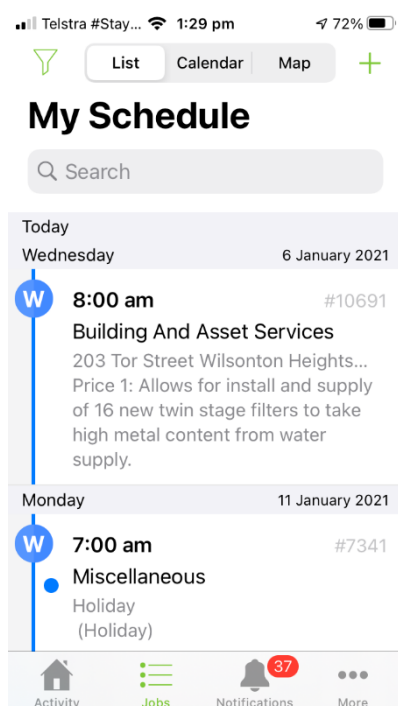
Part 1.3 – Analysis of the application

Being a long-time user of this application myself the following is my analysis of serviceM8 using Krug's 3 laws of usability. I also take feedback from the survey results from fellow employees using the application as well as other companies and staff I have found that rely on ServiceM8 for daily use the following are my personal experiences with the application with the survey backing up most of my results.

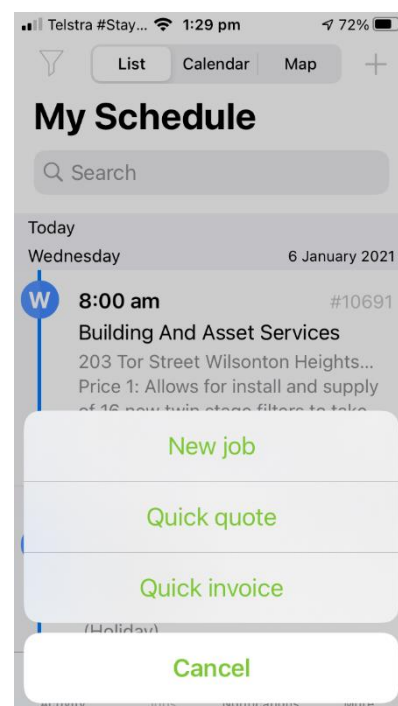
Krug's first law: "don't make me think"

From the above groups we can see that for all groups the initial learning experience can be quite high with some of the built-in features requiring some knowledge prior to being able to use the app functionality. Being in a trade for the past 14 years I will be the first to admit majority of tradesman are not the smartest bunch when it comes to technology and with that being the main market, I believe this area can be worked on. With the number of features packed into the application it can all be learnt in time but using it initially is a daunting task.

I believe that making a more cut down version that has limited access availability for group 2 especially could make this more respectable. With a lot of the features not needed by group 2 limiting the available choices on the main HUD would make the learning experience a lot lower so even the least tech savvy person could have questions of how to use it. I believe in general the optimization they have done is quite respectable even with the learning curve the labelling makes it easy to navigate and never bears the question of what this button does in most cases. For an example to create a new job one must first navigate to jobs then click the plus button in the top right which will then bring up templates (refer images 1.1,1.2). I believe that a better option would be to have main menu navigation with access to a listed button unlike the current layout.



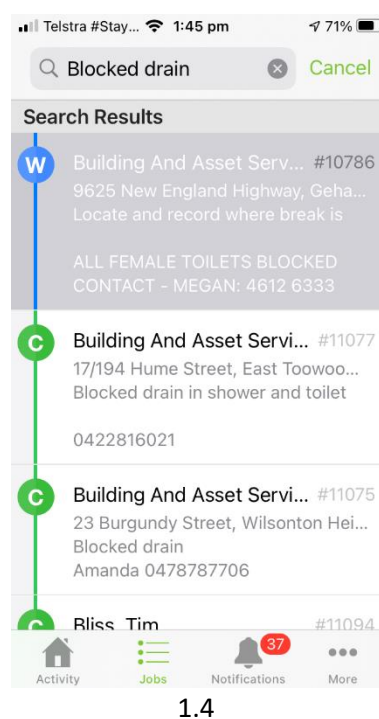
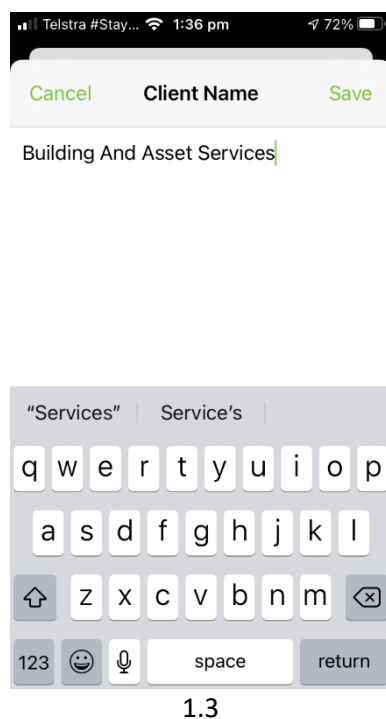
1.1



1.2

Krug's second law: "It doesn't matter how many times I have to click, as long as each click is a mindless, unambiguous choice" or "Users like mindless choices"

Being an application that is meant to be a backbone of the companies' job's the expectation that a user cannot easily mess up the database should be a main concern. Majority of the selections made are straight forward and are easily interpreted for the user. There are a few minor selections that could be made better one of the main concerns is the ability to change some details such as customer name without the informative accept selection to what will incur if this happens. As given in the following example (image1.3) one can easily change a client name which does have some hefty repercussions especially if the client has multiple job entries. Another concern is the search job feature as there are no filters on what you want to search by if a job was done some time ago scrolling to find it can be a laborious task as the search function shows results only in the descending job number with a further filter of work orders come before completed (image 1.4).



Krug's third law: "Get rid of half the words on each page, then get rid of half of what is left." Or "Omit needless words"

This area this application has attempted but I believe there are multiple areas or designs that could be done better most inputs are straightforward. Although there are areas this rule has gone too far, and they should have left more words to make it more understandable. While cutting down words should be followed there are areas that cutting back too far can limit understanding and should not be followed. This law is a further elaboration on what was said in 'don't make me think' with the main concern being the ability to create new jobs with the lack of a main menu navigation.

Part 2 – Survey and Report

The following is a review of a survey made for a group of existing ServiceM8 users who are currently using or have used it in the past.

The survey can be found at the following link

<https://docs.google.com/forms/d/e/1FAIpQLSd1cpnTHG9XgP-ak3dQrayjKn-irtgue8l0EiM2LNPozHqKiA/viewform>

The summary of results can be found here

https://docs.google.com/forms/d/1ybpkAVAk_jj9P_f7yv_zbTHI4RiHAcFjQ8fpOPPWvt0/edit?usp=sharing

or inside the following repo

<https://github.com/Channon87/COSC2653>

The aim of this survey is to gauge the feedback on particulars such as ease of use for all the basic features that are used within ServiceM8. Considering how tech savvy one person would deem themselves amongst answers of how they rate using the app gives a good demonstration of the overall user friendliness of the product itself. Although not to do with the design itself I added in an optional section about phone use as I deemed this to also be a defining factor of whether this application will be used.

Results on all sections will provide a good indication of what particulars of the application need to be worked on as well as the application in a whole. The survey only covers the basic features and there are many advanced features not included within the survey as I find them to be an optional addition as the survey results did show.

Screening Question (part 2.1)

The addition of a screening question was made in the first section of the survey only answering yes would the survey continue. The survey itself was given manually to participants face to face from a store frequented by the target groups of tradesmen. The question was asked before the survey was given in person as it was sent out to multiple emails with no responses this was the only way to get feedback for my survey and entered 1 response as no to show the survey working.

Survey participants (part 2.2)

Section 2 of the survey covers a breakdown to determine what user group the participant belonged to (image 2.1). With a breakdown of user age and occupation we could determine their groupings quite easily with the following questions relating to how often it would be used based on company size. The last 3 questions within the opening of the survey would relate to how tech savvy they considered themselves to compare the ease of use at different skill levels. How long they have used it alongside how much of the features they use to determine the learning curve needed for the percentage of the application features provided, this also gauges if the participant uses the basic features covered in the analysis.

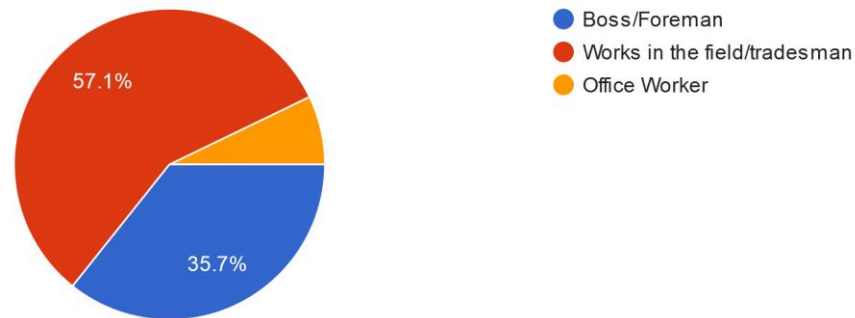
Survey questions (part 2.3 & 2.4)

Section 2 – User details

As described above in part 2.2 this entire section was to break down the participants into user groups to gauge the responses in further sections.

Please select what your job role is

14 responses



2.1

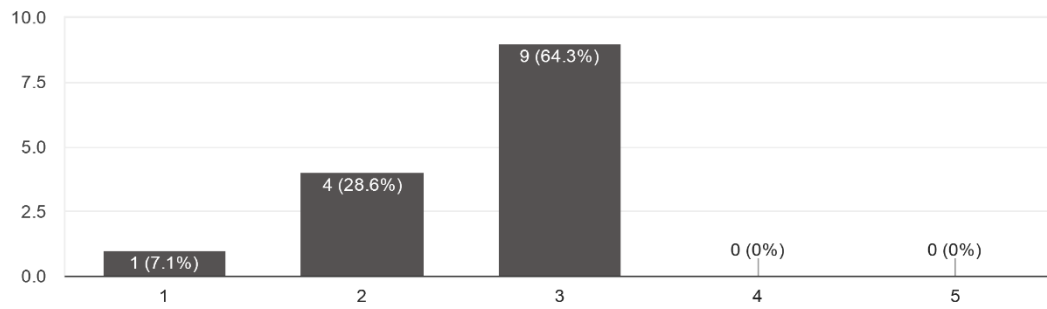
Section 3 – Application Design

With the main guidelines of creation of an app it should be user friendly and the following questions asked shows exactly how the application has achieved this on first the overall product given in question 1 and 2, this shows from the first time using the application (image 2.2) majority 63% where right in the middle of ease of use showing the application itself requires some learning and becomes easier after using it for a while which relates back to section 1.3 my concerns with rule 1 of Krug's law. Moving onto question 2 we can see that after using the application for a given time many found it easier (image 2.3) to use a further breakdown could be made against first use to current use with how long they have used it to further show the learning curve required.

Moving forward questions 3 through 6 in section 3 relate to the basic features that the application markets directly. A breakdown of these will show that overall, they have achieved a relatively easy to use app on its basic features with Job completion being the only stand out. Given that this task is usually taken into responsibility of a boss or office worker group the results show for them it is easier than the group of workers. The problem in this does not rely on the application itself as invoicing does require a higher level of skill however if it is a basic feature, I believe that it should be made a simpler to agree with the Krug's first law.

Thinking back to the first time you used ServiceM8 how easy did you find it to use?

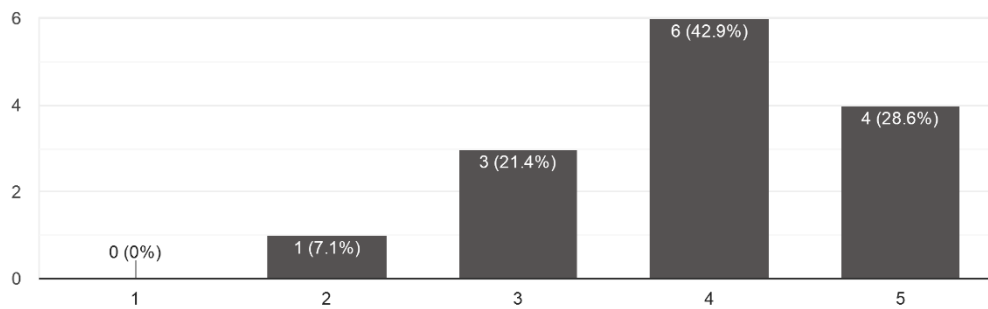
14 responses



2.2

After using it for a while how do you now rate it on ease of use?

14 responses



2.3

Section 4 – Features and Changes

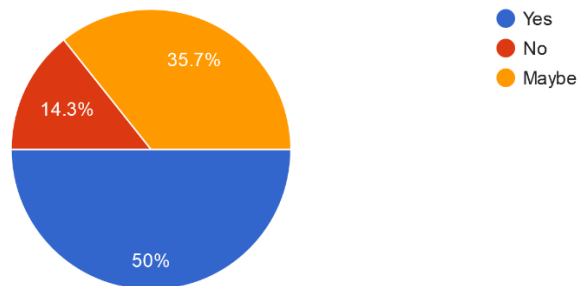
This is the main section of questioning that results back to my analysis of the application itself with current problems I found.

Question 1 – Given that the application is full of both basic and advanced features the responses to this allows to see the general opinion on if it lives up to expectations with its features included.

Question 2 – This more relates to the argument made that a more featureless version should be made available for those not requiring to use the complete features within. As the results show 50% say yes and with a swing of 35.7% to maybe the assumption should be made that more information to what the cut back version would include needs to be determined prior to a more in-depth response can be achieved. However, from these results we can see that doing a limited feature version is desirable.

Do you think there should be a different version with limited features depending on what is needed?

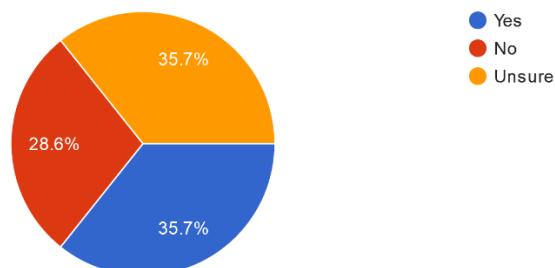
14 responses



Question 3 – This relates back to argument made with analysis as to making every choice a mindless one. Although the results of the survey are not definitive in showing there is a problem with the UI it does suggest with the unsure considered that the chance of doing so is achievable and henceforth there is a problem itself in the UI design and the cutting back of words may have been taken too far.

Has there ever been an incident where a change was made unknowingly impacting the database within your account?

14 responses



Section 5 – Platform use

Although not directly related to the analysis I believe it is a defining factor with the user design. It does relate in a minor point that majority of users are not apple so using the application may be impacted by general knowledge of apple systems themselves. I find this relevant as when designing something that is meant to be user friendly it should be able to be used by everyone so to make it more transferable to android users could achieve this.

Section 6 – Anything you wish to add?

This section was optional addition comments to anyone that had an extra opinion. In my experience people only ever take the time if there is a form of negativity to add, so with only 2 out of 14 valid participants commenting I believe majority are happy with the application. The following comments were made

“Wish I didn’t have to use this” – Can only assume too much of the business is already tied up within the app and making a change to a different one is out of the question.

“Set up business started to use this app but making phone change now and thinking might have to change because it has no android version apart from that still learning features and setting up but unsure if I will have to find something else” – Once again just shows the importance of having an application not specifically tied to an OS particularly when it is designed to be a one stop shop for small business.

To add to these comments, I also scrolled through some reviews on the app store and found some of the concerns are the limitations of OS required, the main UI design (analysis third law), and a few having problems with the changes after the updates with features added that must be further read into as they change the basic functionality adding extra steps that are not required as for the most part link to features some do not use so the user is constantly pressing no.

Conclusion

Overall, we can see that although the application has an initial learning curve majority of the features are made user friendly once it has been used for a while. The solution I believe to many problems would be to make two separate versions one that is cut down to make navigation and use extremely easy with the other having the advanced features required. To also open the app up to android could change layouts making the application more user friendly and understandable. Taking the android version out of the equation also the cut back version the main change would come from a UI overhaul adding a main menu with features being made more understandable with the option to also select filters for searches and select what features the user wants to use.

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