



COMM3780 MOBILE MEDIA

ASSESSMENT 2: OPTION B

RESEARCH & DESIGN

200949065

WORD COUNT: 2283



RESEARCH REPORT

INTRODUCTION

The theme of ‘boundary blurring’ or ‘work-life balance’ has long been of research interest, in relation to digital media and its ramifications within society. Traditionally, the boundaries between work and non-work were well-defined where “transitions between work and home-based roles were well scripted in societal expectations” (Duxbury et al., 2015, p.57). Accordingly, with the increasing number of technology usage through all aspects of society, these boundaries are becoming more permeable and less-defined than before. The focus is not on increased technology as a whole however, but increased *communication* (Chelsey, 2005, p.1240). What were once two separated ‘spheres’ of life are now merging as a result of more communication; more work can be done in less time, work is no longer tied to specific locations or hours and working remotely is becoming a norm (Kiesler, 2002). Before smartphones, only phone call or text messages were possible. However, the many more affordances made available through convergent technology today allow individuals to complete activities which were once only possible through a computer – such as checking emails, social media, direct messaging and other forms of communication for no cost.

Many have identified boundary blurring as ‘paradoxical’ or ‘double-edged’, as the permeation of work-life spheres can have positive and negative effects upon its users (Schalow et al., 2013; Wajcman et al., 2008; Taewoo, 2014; Mellner, 2016). This paradox brings about two simultaneous features: permeability and flexibility, the former usually associated with the negative and the latter with the positive. Permeability refers to the spillover from another sphere eg. work occurring in a home setting or answering a personal call at work, while flexibility refers to enabling of the individual to manage their spheres and negotiate their habits to suit their lifestyle needs as a result of increased communication. While there has been much debate over this boundary permeability, most have reduced technology as having a negative impact on work-life balance. Nevertheless, the debate is not as simple as a positive-negative dichotomy that can be solved with a single solution.

POSITIVES & NEGATIVES OF BOUNDARY PERMEABILITY

One of the fundamental debates about boundary permeability, questions what the effects of boundary permeability are, and whether they are positive, negative or both. Referring to the aforementioned paradoxical element, most research suggests that mobile technology has more negative impacts, or at least the negatives outweigh the positives. Yet, rather than whether the outcomes are positive or negative, perhaps it is more logical to enquire about the *extent* of these effects, and which of these effects create more damage and

therefore requires more urgent addressing. For example, boundary permeability enables individuals the flexibility and freedom to manage their daily activities (Duxbury et al., 2014; Pauleen et al., 2015) but at the expense of their health and life satisfaction. This is due to the reinforcement of “expectations that employees are available for work outside of normal business hours” (Dettmers et al., 2016, p.105), which are “associated with difficulties detaching from work during leisure” (Mellner, 2016, p.156). Ultimately, perpetual connectivity leads to increased pressure for individuals to meet work-related expectations. Wajcman et al. contends that “the phone simply summons the worker to work” where “the mobile is not...a work extension device” (2008, p.658), however even if certain individuals are not affected by work expectations, most “have used this freedom [of flexibility] to accommodate more work” (Pauleen et al., 2015, p.7), thereby demonstrating that more individuals choose to use their mobile for work related activities than not.

Since spillover is generally work-related, empirical research has also shown that greater permeability overall, also leads to greater life dissatisfaction as individuals do not have time to recover from different spheres (Chelsey, 2005, p.1238), consequently leading to risks of “impaired well-being, such as health problems, absence rates, stress perceptions, or work-family conflict” (Dettmers et al., 2016, p.105). Hence, considering that individuals are more likely to use mobile technology for work permeability than the flexibility of work freedom, the negatives of permeability far outweigh the positives of flexibility. The mobile’s permeable impact upon health and wellbeing thus provides a stable ground in which to begin to examine, approach and resolve.

TECHNOLOGICALLY DETERMINED VS. SOCIAL CONSTRUCT

The second problem questions whether boundary permeability is technologically determined or a social construct; to be able to ascertain where the debate is situated in the wider context of mobile technology and boundary permeability, will hopefully lessen the difficulty in addressing the problem. Those who believe boundary permeability is technologically determined also believe that the concept was therefore inevitable, and thence it is up to its users to harness the technology in a way that will not cause damage (Duxbury et al., 2014, p.572). Those who believe that boundary permeability is a social construct however, believe the problem was not created by technology, but the individual themselves and their inability to exercise control. As Chelsey states, “emails can be filtered [and] calls can go to voicemail (or unanswered)” (2005, p.1239). In other words, communication is not an obligation and technology themselves have mechanisms to be paused or stopped. An alternative side to the debate maintains that the blurring of boundaries “may reflect people’s preferences...rather than being an indicator of...balance problems” (Hislop & Axtell, 2011, p.43), where instead of the individual’s inability to control themselves, it is actually their personal preference, even if they are aware of its negative effects.

This dichotomy is once again oversimplified, as boundary permeability cannot be caused by a single problem but a combination of many, where “the division between the public and private realms is still the occurrence of social conventions and is not the obligatory consequence of machines” (Wajcman et al., 2008, p.646). This suggests that some factors are beyond the control of the individual as a result of work conventions and societal norms. There will be those who wish to disconnect from their work, but “depending on the opportunities, constraints and or/demands of the environment” are unable to act out “their preferred boundary management style” (Mellner, 2016, p.148). Specific examples include individuals who may have a family and prefer the flexibility of working from home, or those who wish to keep in touch with other areas of their non-work life during work hours, as well as those in a managerial position and cannot afford to be away from connectivity. Others may simply prefer the flexibility offered by mobile communication at the expense of their health. Therefore, when considering the causes behind boundary permeability, it would be illogical to reduce the concept down to one single cause when it is actually a combination of technologically determined influences, socially constructed and uncontrollable factors, personal preferences as well as the individual’s negotiation of what boundary permeability means to them.

THE USER

To understand how to approach the problem of boundary permeability, the users of mobile technology themselves will need to be considered, as no two users will approach work-life balance the same way. Research conducted by Hislop & Axewell (2011) indicates that users generally exist on a spectrum of mobile communication usage where at one extreme, exists the *segregators* and the opposing extreme are *integrationists*. Segregators are those resolute in separating and maintaining their work and life spheres away from one another. For example, individuals who do not use communication for work-related matters during leisure time, and likewise having designated locations and hours for work to occur. The opposing extreme exists the *integrationists*, who allow the merging of their work and non-work spheres, with consistent spillovers of all aspects of their lives made available through perpetual connectivity.

Where each user is situated on this spectrum can be framed using attribution theory, as suggested by Duxbury et al.’s research (2014). This means that a user can be both determined by dispositional attributes – personal preferences of boundary permeability – as well as situational attributes – external factors such as the context in which they are negotiating their boundaries in. In addition, merely because a user is an avid integrationist with a high degree of work-life permeability, does not necessarily mean they will experience negative effects. Although, as explored earlier, greater permeability leads to greater likelihood of overall distress, this is still indefinite and depends on the individual. Increased communication affects “some workers but not others” (Duxbury et al., 2014, p.584), since technology and the users themselves influence and react in divergent ways.

Likewise, there will be strong segregators who may occasionally wish for or require a degree of flexibility depending on their personal circumstances. Accordingly, it must be kept in mind that each individual is not rigid in their classifications as integrationists or segregators, but are multi-faceted and always negotiating along the spectrum of permeability over time.

THE APP: ENERGIZE

Amongst the points identified in the concept of boundary permeability, it is possible to consider the health and wellbeing implications of mobile technology to be addressed first and foremost. With this as the foundation to this mobile application and software proposal *Energize*, the app aims to disrupt the negative effects of mobile technology in the workplace and provide employees an opportunity to regain a suitable work-life balance. The app will be similar in structure to a project management site or software, however the key difference is that it will be focused on the wellbeing as opposed to budget restrictions as most project management applications do eg. *Toggle*, *Hubstaff*, *Asana*, etc.

Thus, the target audience are workplaces with integrationists who struggle with work-life balance and potentially suffer the adverse health effects as a result of work-related expectations. However, that does not mean that workplaces without problems cannot utilise this service to improve their employee's wellbeing too. Since "permeability is of more managerial interest than flexibility" (Taewoo, 2014, p.1034), "managers and employers must need to be more sensitive to the importance of workers need for undisturbed leisure" (Mellner, 2016, p.160). While this will require the initial development of specific work-life policies and culture within the workplace themselves, the app can aid and facilitate this boundary control through its practical functions.

In terms of practicality, this translates to the maintenance of allotted time allowed per employee. All employees will be assigned a leader (ie. their project manager or department lead) who will then have the ability to allocate and restrict how many hours the employee will be able to work for. This restriction is conducted through time tracking and device monitoring installed upon a device, where screenshots will be recorded every so often to track employee progress. Once an employee's allotted time is used up, the employee will have to request for more hours from their assigned leader, otherwise extra work cannot be recorded and therefore completed. While the actual tracking is monitored through the software app, updates can be viewed using the mobile app.

The purpose of the time tracking and allocation of hours is to ensure that employees will not be overworking and, like research has evidenced, their free time is reserved for leisure and psychological detachment rather than to accommodate more work. This is without risks, since employees will still be able to complete work yet

not record their progress. However, the implementation of such service will hopefully be based upon the workplace's already existing work-life related policies to aid and encourage their employees to stay segregated.

To ensure that employee stress levels are consistent and healthy, employees will also be able to record their daily mood. At the end of each month, a record of their overall stress level will be available for themselves to review. The lead will also be able to view the monthly stress levels of the employees they are overseeing, and any individuals who fall to an unsatisfactory level of stress will automatically have their profile notified. This is recommended by Taewoo, as periodical evaluation of colleagues and employees to assess their perception of stress will be useful for the workplace to understand how their employees are doing and their own awareness for maintaining a good work-life balance (2014, p.1034).

Situated in the wider context of data tracking, self-quantification has become an extremely popular way for individuals to track their habits as a way of lifestyle improvement. Example services include collecting data on running schedules, weight loss programmes, sleep cycles and productivity levels. As Whitson notes, "when we subject ourselves to this quantification, we come to know and master the self" (2013, p.167). Quantifying the self therefore allows individuals to reflect upon their actions, and adjust their responses accordingly in a way that will benefit themselves. This has proven useful, especially in the area of mental health and wellbeing, where reflection is a form of therapy which benefits the mindfulness of an individual to better the self. Calvo & Peters (2014) relates this concept back to psychotherapy – although technology cannot and perhaps will never replace professional help for those that are truly suffering from mental health issues, technology can however to an extent, provide an accessible form of therapy to prevent and enhance those who have mild and treatable symptoms, by way of self-tracking. Fundamentally, data tracking can help monitor stress levels within the workplace and highlight any problems before they become serious.

Other functions to help employees balance their work-life include an "availability shift" in the form of an in-app calendar (Mellner, 2016, p.160), where nominated users are placed on a rotational basis of availability. This means that when employees are not on the shift, they are not required to be connected with work-related communications such as answering or replying to emails and calls. For example, a week per month can be allocated to employees who are required/not required to be available. This will ultimately cater to all employees along the spectrum, but also allow a fair and equal amount of time for each employee to detach from work each month and recover.

It is understandable that in a working environment where competition and business is vital, workplaces will be more inclined to use a financial or budgetary based project management service. However, this is where *Energize* fits in. Considering that employees are more likely to believe that greater permeability will lead to greater productivity for the workplace, it will simultaneously lead to greater health effects and absence rates which paradoxically reduces productivity. Therefore, *Energize* aims to recalibrate and reorganise the way that

workplaces function by introducing an alternative system that simultaneously maintains workplace productivity, but keeps employee health and wellbeing as a priority as well.

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Energize

Specification Report



INTRODUCTION & AIMS

Energize is a software and mobile app which aims to disrupt the negative effects of mobile boundary blurring in the workplace.

In an increasingly technological society, the ease of access to communication allows work to be completed from home or remotely with the use of smartphones and own devices. Consequently, the lines between work and non-work are becoming intertwined.

Research has shown this can lead to an increased likelihood of adverse health effects, absence rates, job satisfaction and the overall quality of your life.

To combat this problem, Energize balances the management and productivity in the workplace, while maintaining employee wellbeing through the use of time restrictions, mood tracking, non-working hour shift availability amongst other functions.

COMPETITOR ANALYSIS

Harvest

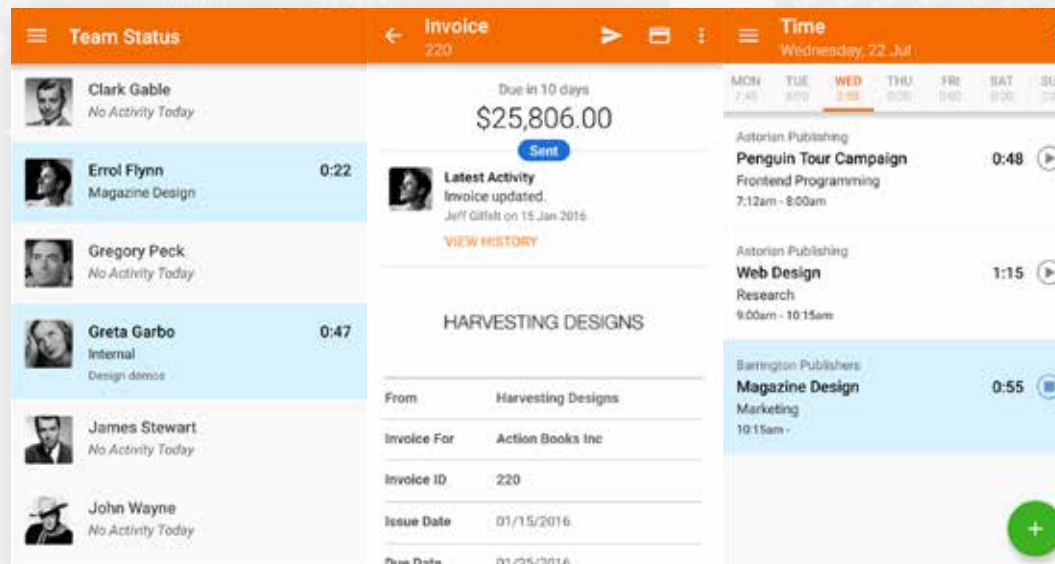
Harvest is a paid project management app, with a focus on expense tracking based on allocated hours. The service is available online and syncs to the mobile app so that project tasks and time tracking can be managed away from the desktop version. Their clean and simple interface separates their management into five simple sections: time, expenses, invoices, reports and team status.

The time screen is a very user-friendly scrolling horizontal calendar, where users can add and delete tasks or projects. Each task can then be allocated to specific users and clients, with a start/pause timer function beside each task so that all users can view what tasks are currently in progress. The timer

however can be stopped at any point, which means it is up to the users to honestly track their progress.

Users can view how their team members are progressing on a separate page, including how many hours their colleagues had worked for. Users can also track their own times and expense progresses, as well as view the total hours and expenses for the entire team - including work capacity and billable/non-billable hours.

What Harvest does very well is its design and user experience. The app presents a great body of data and information into a way that is easy to view and manage.



COMPETITOR ANALYSIS

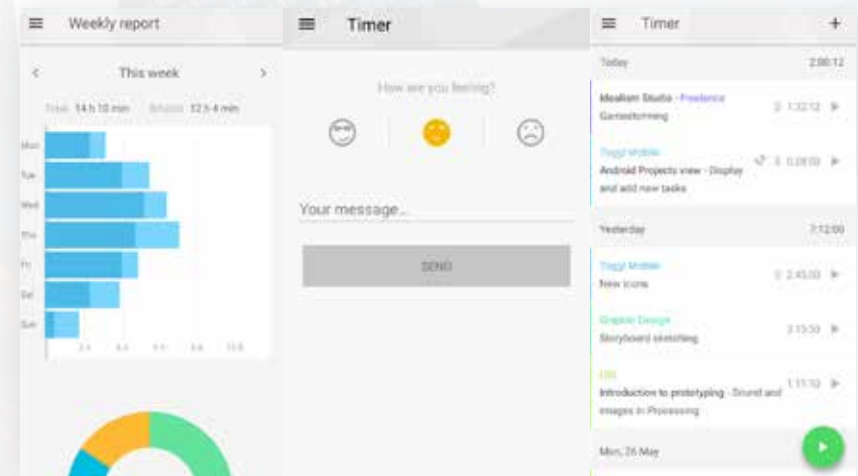
Toggl is a free project management app, which also has a focus on expense tracking based on time tracking and hours. The mobile app is connected to the desktop/online version, so that the data and management details are also conveniently accessible from a smartphone.

Toggl is arguably simpler than Harvest, where the app is only separated into two sections: timer and reports - but with an enhanced usability in terms of interface design. The service also includes visually stimulating ways to present the information, such as using colour coded charts and graphs so that users can instantly view their progress on expenses and hours. To further enhance the usability, tasks can be colour coded and tagged with keywords, so that users are free to search through projects and tasks in their preferred manner (as opposed to client or project name).

Due to the simplification however, there are less detail in some aspects - such as the inability to view the hours and expenses per user, view other team members, and additional functions such as invoices and past tasks cannot be viewed and will require the user to access the desktop version for further management details. However, all the necessary information and functions for a project management service is available on mobile, though re-arranged differently compared to Harvest. There is also a feedback page, where users can choose

Toggl 

between three moods depicted by smileys (green, amber and red), and add a short message about their mood. Unfortunately, the feedback is vague on its function, though it appears that it is a feedback system for the service provider, Toggl on the user experience. It would be useful to take inspiration from this idea, and translate it into a feedback service for employees to project lead/manager instead. Otherwise, the overall user interface and simplicity of the app delivers exactly as it is intended to, and is of high quality especially for a free service.



COMPETITOR ANALYSIS

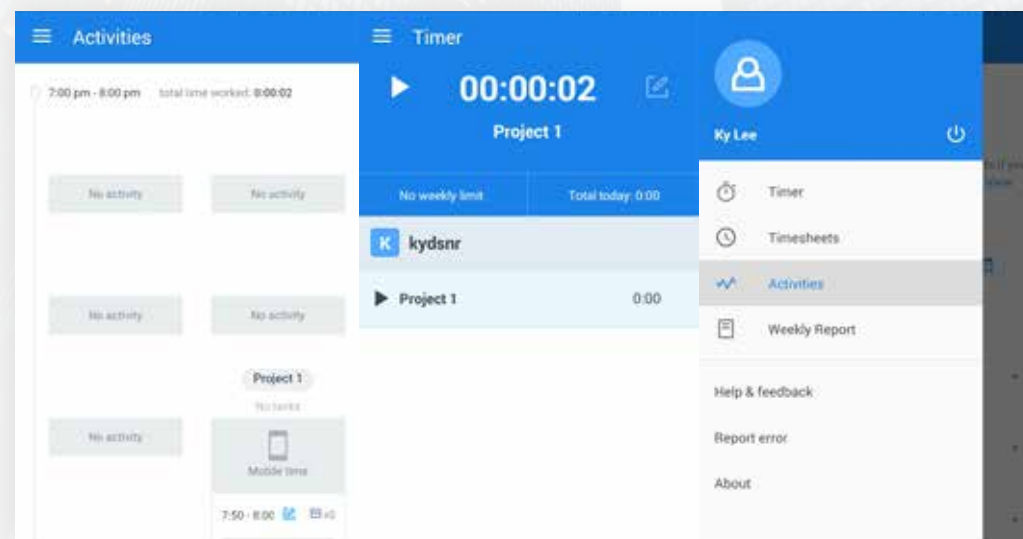
Hubstaff can be said to be a balance between Toggl and Harvest. As a project management service, its main focus unlike Harvest and Toggl is overseeing the progress of other users, as well as allocating time restrictions based on budget availability rather than expense tracking. There is a balanced amount of information, where the app is classified into four sections: timer, timesheets, activities and weekly reports.

The timer keeps track of the tasks while the timesheet displays the completed tasks overall within a team. Users are also able to collectively view what others users are doing through device screenshots. This is a unique feature which Hubstaff offers, so

Hubstaff 

that users are able to view visually what team members are doing every so often - something that other apps and services generally do not include.

The interface is simple; however, the user experience could be improved as many of the pages require horizontal scrolling and is not utilised for the average mobile phone screen. The information displayed on each page also appears monotonous with a lack of hierarchy. There is also a lack of flexibility in terms of how users can view their data information, for example the budget tracking is only displayed beside a task and users cannot search by clients, total hours, etc.



INITIAL SKETCHES

① Login / Register

② Register Page

③ Menu

④ My Tasks - To Do

⑤ My Tasks - Complete

⑥ New Task

INITIAL SKETCHES

① Login / Register

② Register Page

③ Menu

④ My Tasks - To Do

Calendar
Today's Date
Filter By
Pause/Reset Timer
Completed Time, Allocated time

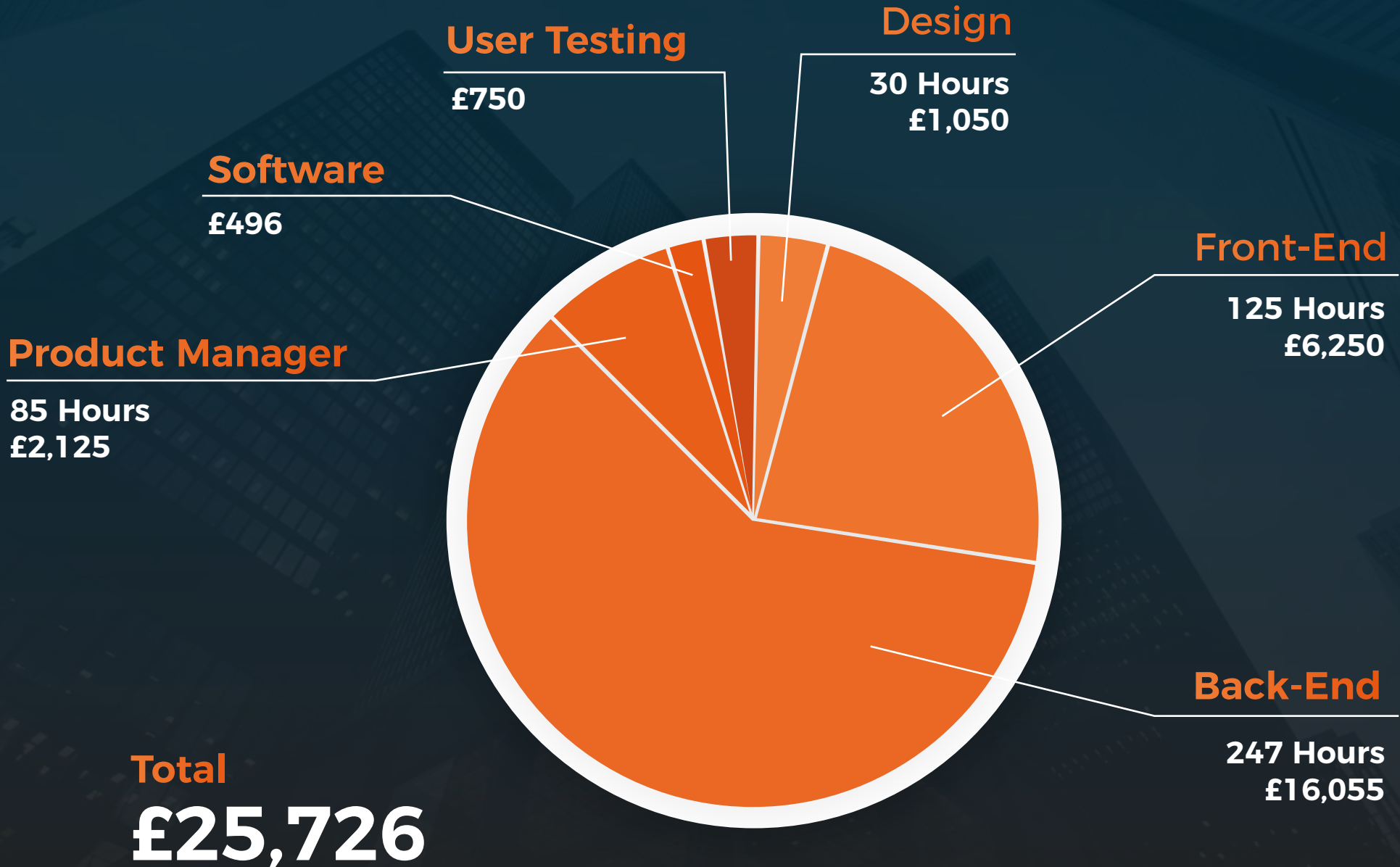
⑤ My Tasks - Complete

Swipe or
Pin/ Delete

⑥ New Task

Dropdown
Only Project level can allocate time

FEE BREAKDOWN



RISK ASSESMENT

Priority	1-5 Very Low	6-10 Low	11-15 Moderate	16-20 High	21-25 Extreme
Probability	1 Very Unlikely	2 Unlikely	3 Possible	4 Likely	5 Very Likely
Impact	1 Insignificant	2 Marginal	3 Moderate	4 Critical	5 Catastrophic

User Risks

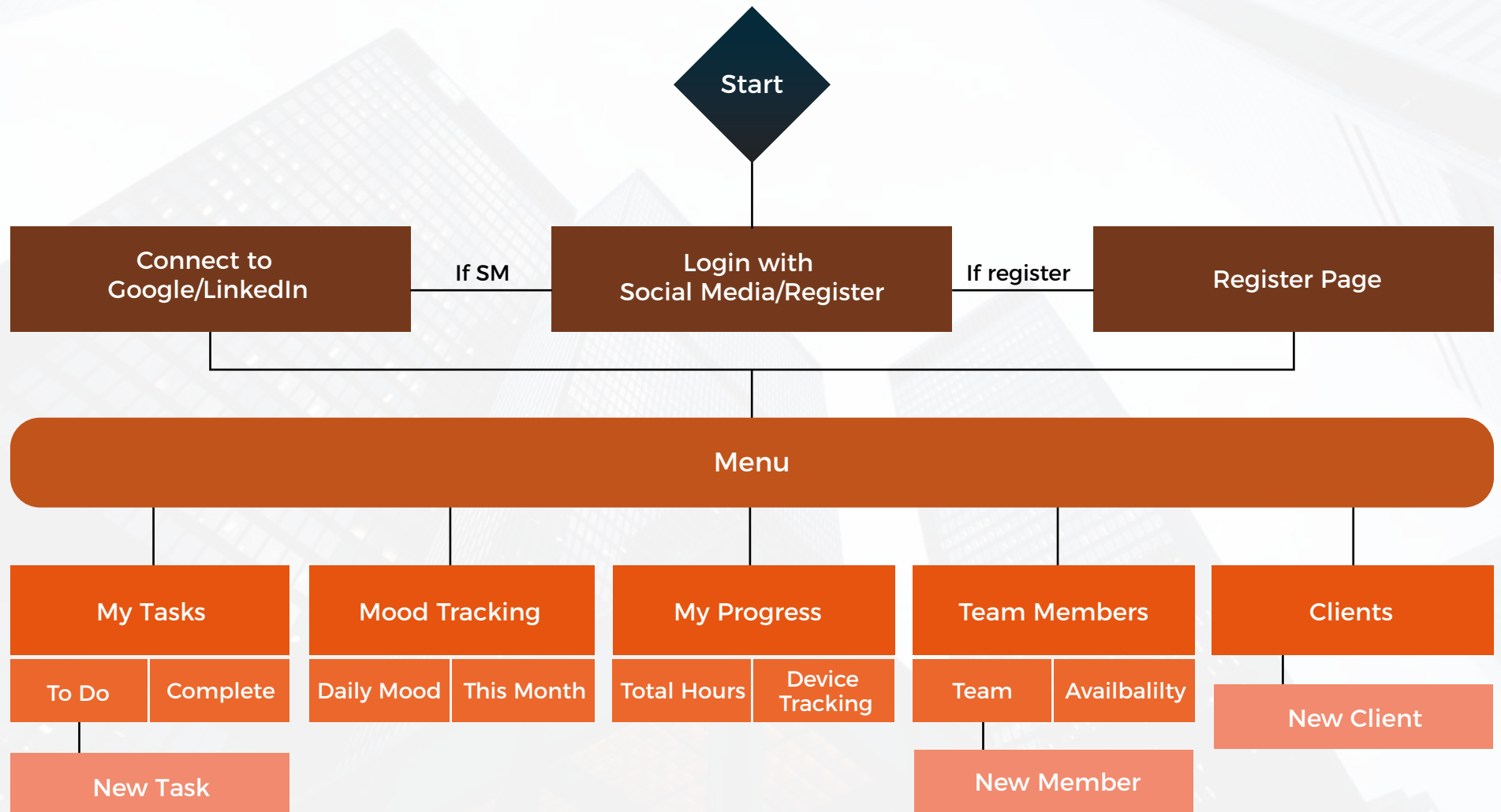
RISK	PRIORITY	PROBABILITY	IMPACT	MITIGATION RESPONSE
Users are more inclined to use a budget based project manager	HIGH	5	4	Ensure users are aware of the app's intent and its functions to benefit the health and wellbeing of the workplace.
Users forget to record their daily mood	LOW	5	2	Send daily notifications to users if they have not recorded their daily mood after a certain time.
Users feel the allocated hours function is too restricting	MODERATE	4	3	Make sure users know the function is to lessen the issue of overworking and aid psychological detachment, but the flexibility is still available to request for more hours.
Users feel the device tracking is an invasion of privacy	HIGH	4	4	Include a message of discretion, informing users the function is to help workplace focus and productivity. The function is not necessary, and will be up to the admins how it is utilised.

RISK ASSESMENT

Design & Development Risks

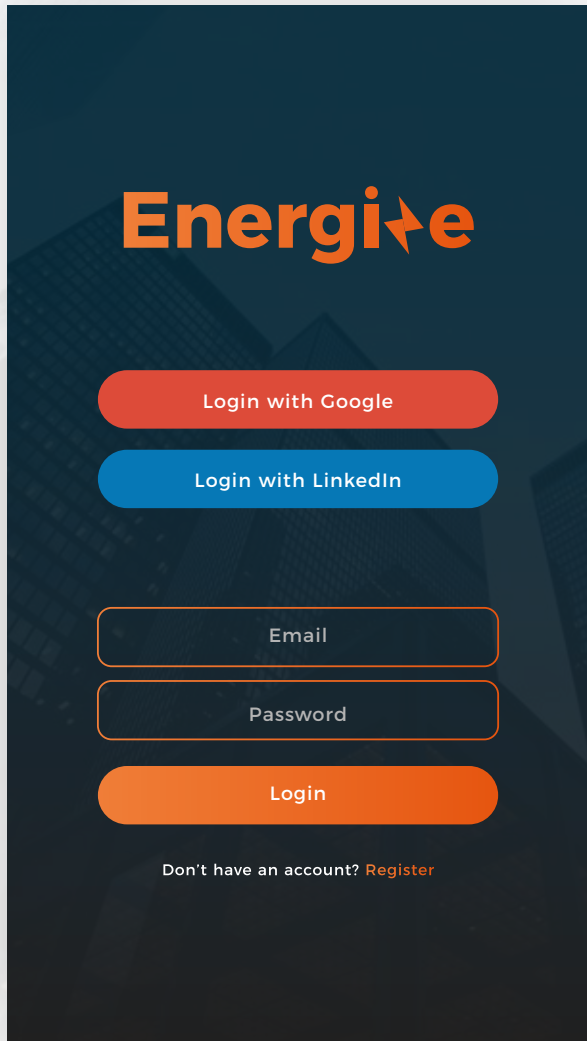
RISK	PRIORITY	PROBABILITY	IMPACT	MITIGATION RESPONSE
A similar app or service is released before Energize.	LOW	1	5	Delay the production of Energize, and take time to evaluate and refine/improve functions which competitor doesn't include.
Loss of work or project during production	LOW	2	5	Ensure the project and all the assests are saved in multiple locations, at freqeunt times.
The app contains too many bugs after its released	LOW	5	2	Make sure the product undergoes user testing at different stages throughout its progress, including a final test before releasing.
Conflict arises between the roles of the designer or developer	VERY LOW	1	2	Product Manager should take steps to reduce the conflict and solve any problems (whether technically or interpersonal). Should serious problem arises, seek outside support.

APP STRUCTURE





CONCEPT WORK



The login screen features the Energize logo at the top. Below it are two social login buttons: 'Login with Google' (orange) and 'Login with LinkedIn' (blue). Underneath are input fields for 'Email' and 'Password', followed by an orange 'Login' button. At the bottom, there is a link that says 'Don't have an account? Register'.

Energize

Login with Google

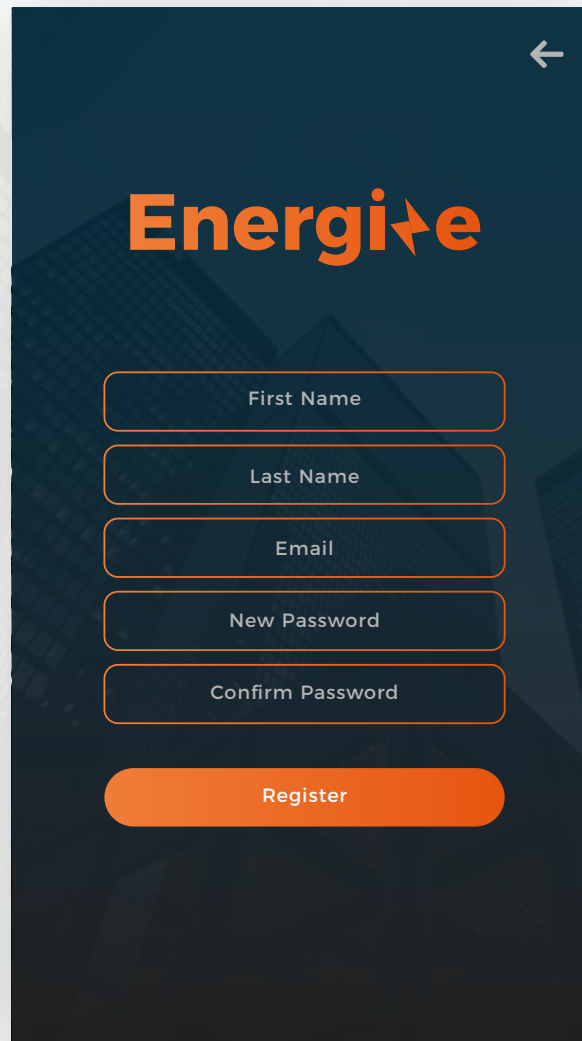
Login with LinkedIn

Email

Password

Login

Don't have an account? [Register](#)



The registration screen features the Energize logo at the top and a back arrow in the top right corner. It contains input fields for 'First Name', 'Last Name', 'Email', 'New Password', and 'Confirm Password', followed by an orange 'Register' button.

Energize

←

First Name

Last Name

Email

New Password

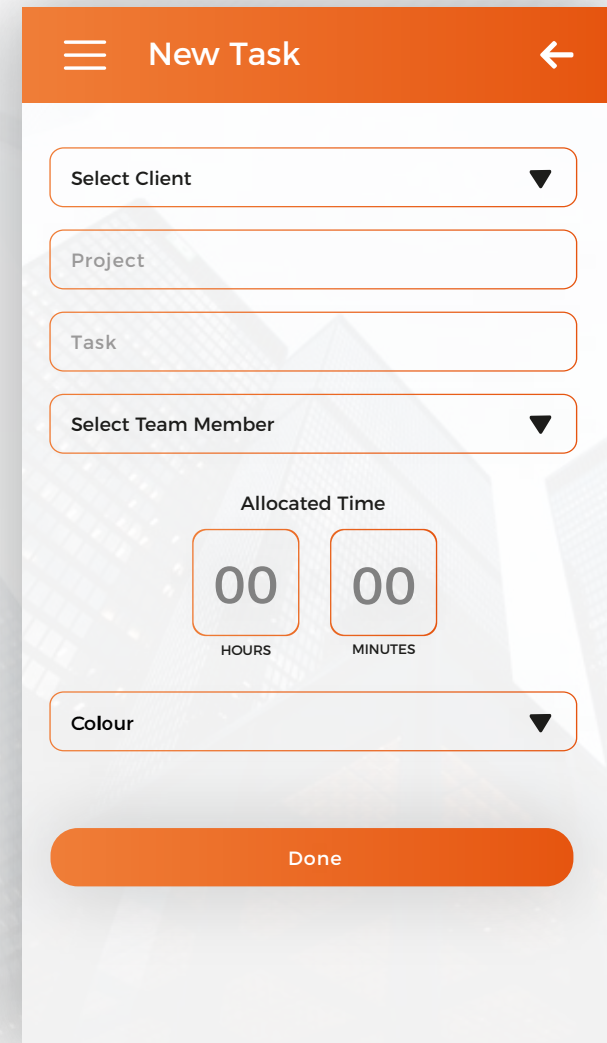
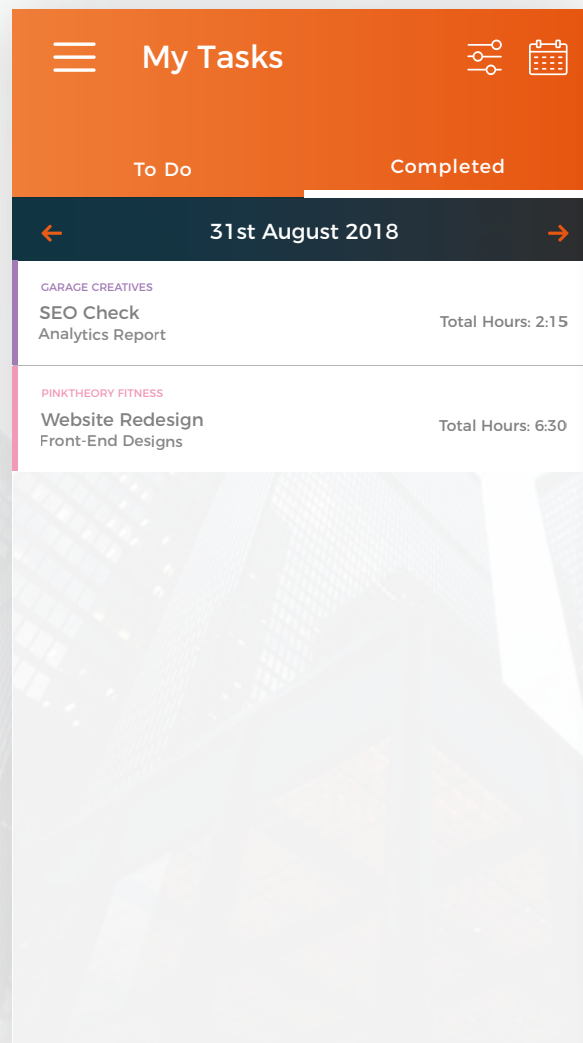
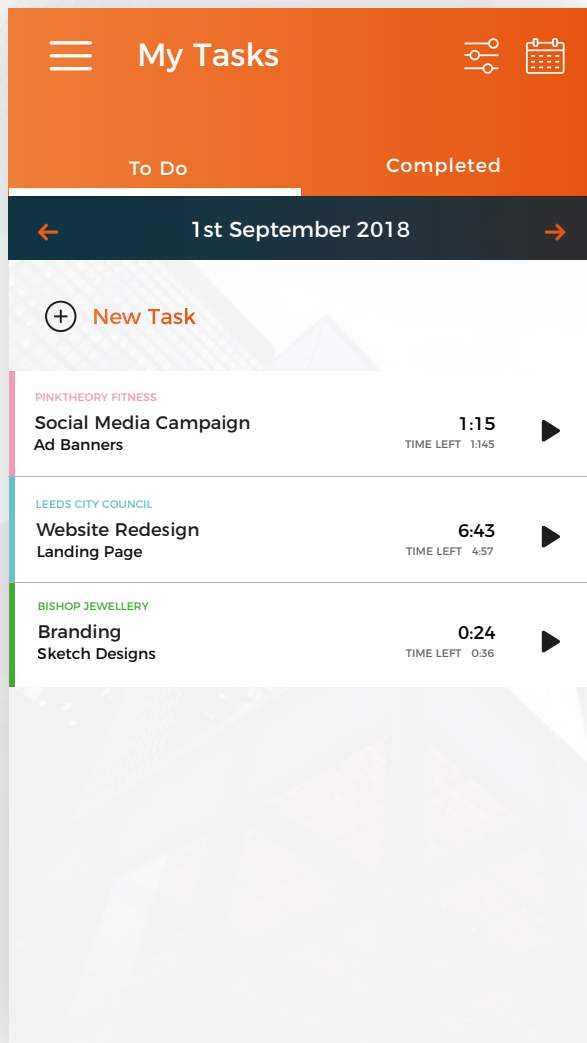
Confirm Password

Register

LOGIN & REGISTER

When users first enter the app, they will be asked to either connect with their Google or LinkedIn account. This will provide efficiency as users will reduce the step of creating a new account (which they can still do so if they wish).

Users will receive an email to confirm their account, which will then automatically link to their project workspace which the administrator will have added the user in.



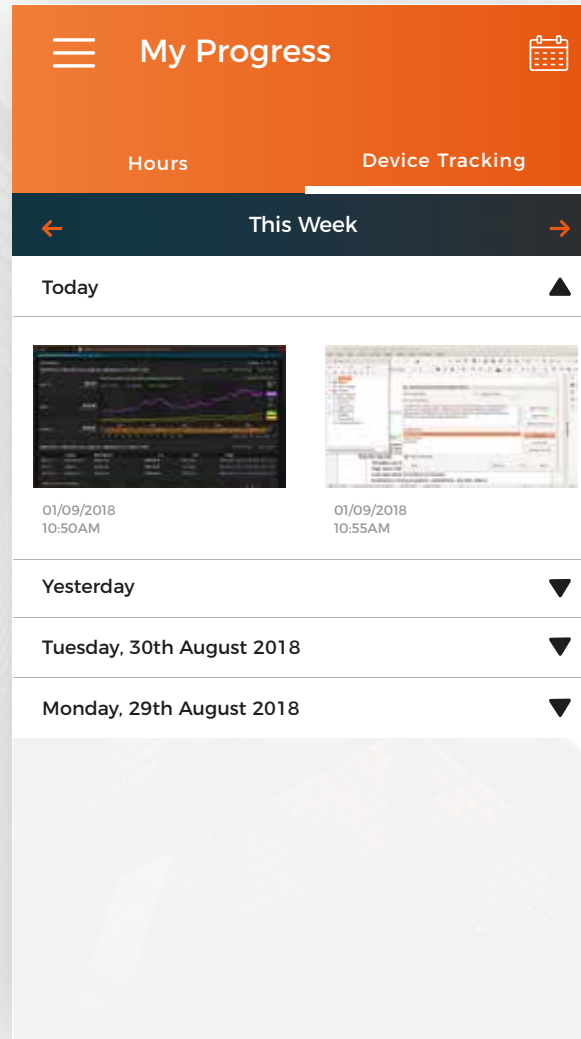
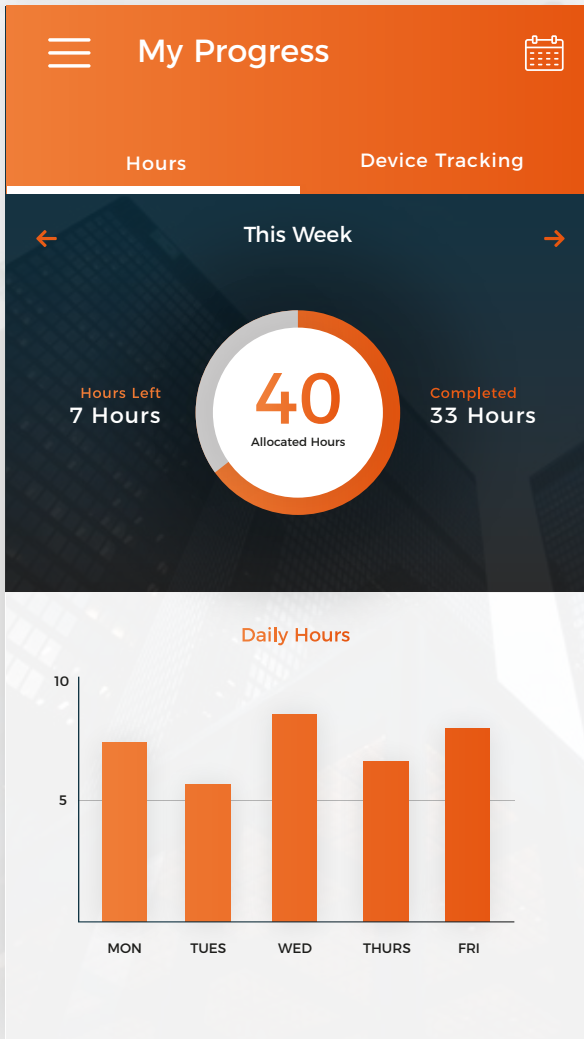
MY TASKS

Once users are signed in, they will be presented with a page that lists the tasks they are assigned. Each task will contain the details of the client, project and task alongside the timer button and allocated time for selected task.

Users are also able to view their completed task, and choose

or filter the tasks using the filter and calendar option in the top right.

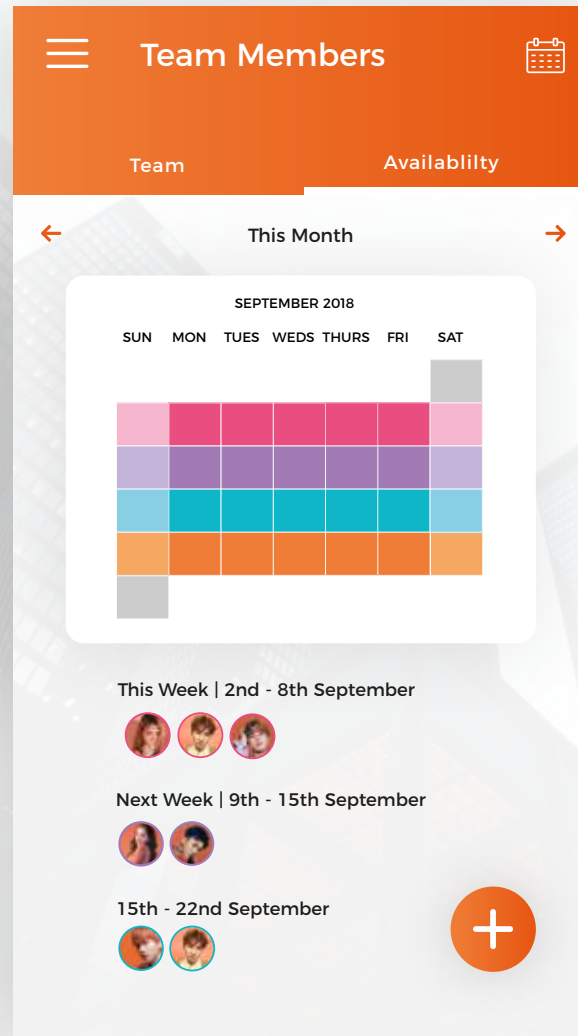
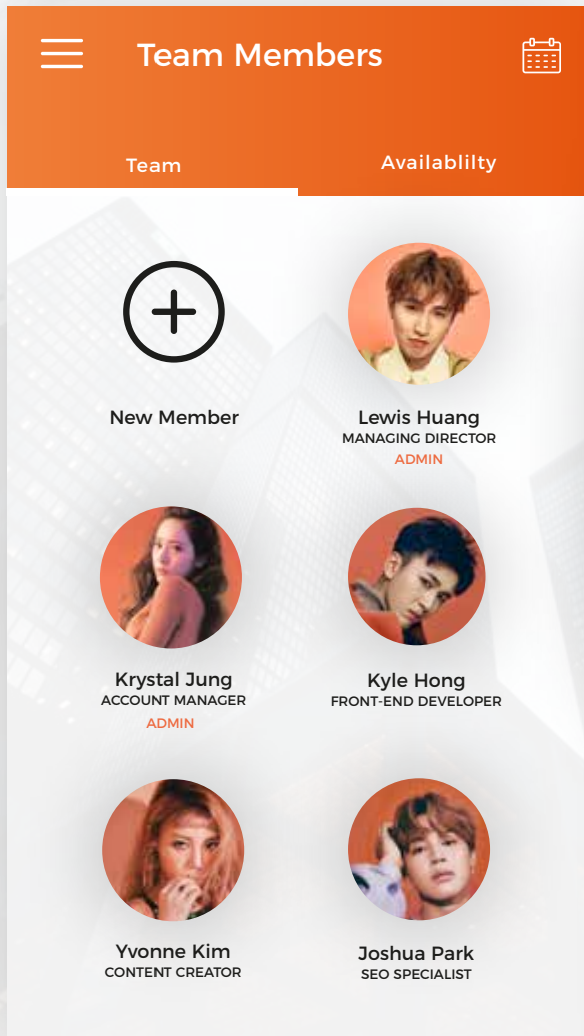
Users with admin rights will also have the choice of allocating tasks and times to users. Each task can be tagged with a colour to make distinguishing easier.



MY PROGRESS

The 'My Progress' page displays how many hours the user is allocated, the amount of hours they have recorded as well as the amount of hours remaining. Users can also see how many hours they have tracked for per day. Again, if users wish to view another week, they can filter using the calendar option. When users reach their limit, they will not be able to record any further time, and must ask for more hours if they wish.

Under 'Device Tracking', users will be able to see a list of their recorded device screenshots. The admin or project lead can choose the recording frequency.

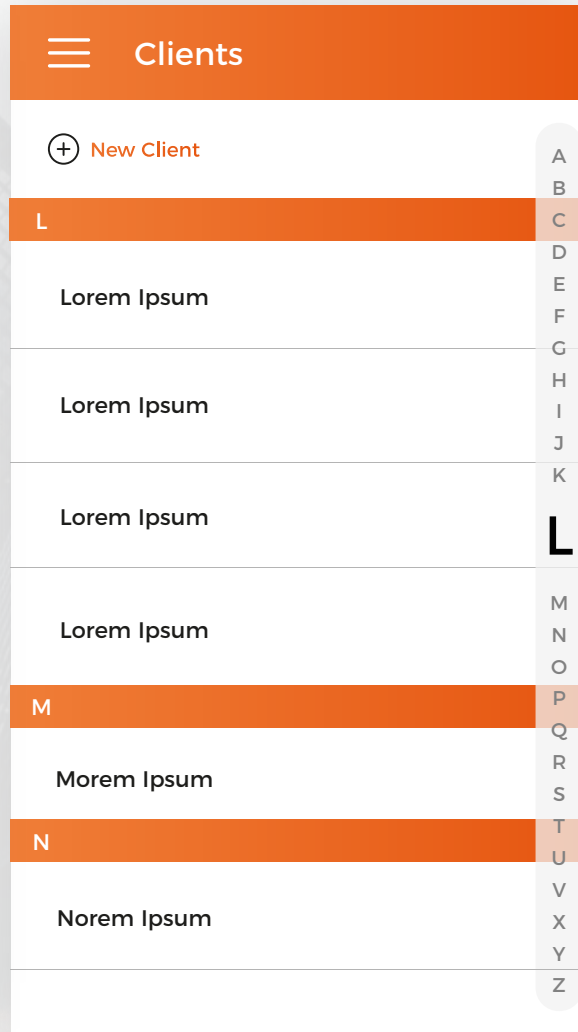
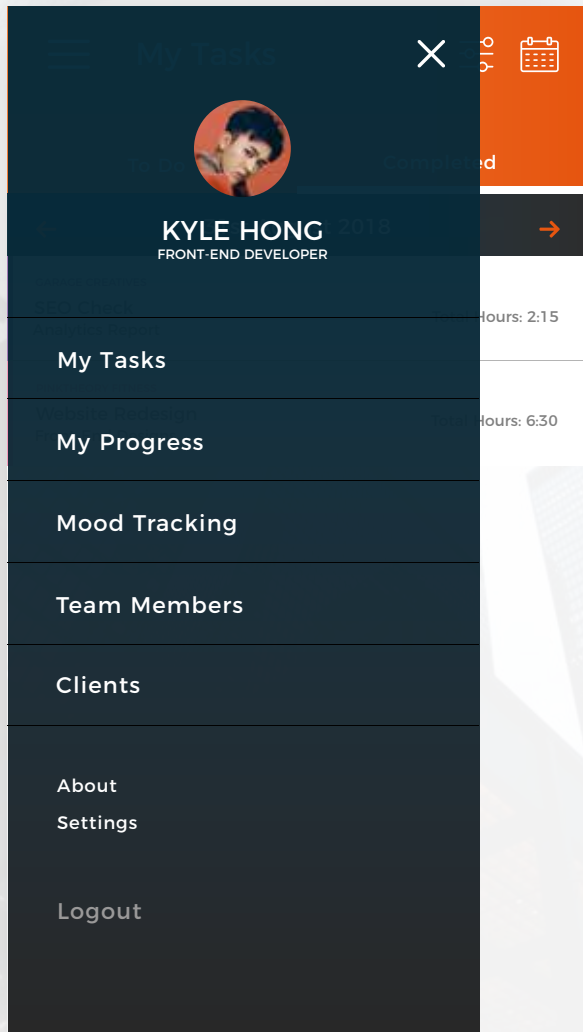


TEAM MEMBERS

Users can view their colleagues and team members under the 'Team Members' page, and see their roles as well as who the admins are.

The 'Availability' tab displays a calendar of the working month as well as a colour-coded representation of the members who are available to be contacted outside of working hours.

This is so that users can have allocated periods of time to psychologically disconnect from work, but on a fair and rotational basis.



MENU & CLIENTS

Besides adding new team members, users can also add clients and further details about them if they wish. A scrolling alphabet towards the left-side of the interface allows users to swiftly find their client's name.

To navigate the app's pages, a menu button is available in the top left corner. The menu will display a simple slideout interface, as well as their own user profile.