

Simple Divorce

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PROBLEM: "How can I understand family law and connected legal processes?"

Access to justice issue: The legal process of undergoing a divorce

Given the current social climate of increasing divorce rates, an ever decreasing prospect of legal aid, and the potentially tedious process required to undergo a divorce, it was decided that an application which aims to improve access to justice relating to the area of divorce would be much desired and beneficial within today's society.

User issues and requirements:

As part of this section, all identified user issues will be indexed with "[U1], [U2] ... [Ux]" notation in reference to the issues table provided in the appendix (Appendix 5).

Before working on the task, the team conducted research into the iterative design thinking process^{1 2 3}. The first stage of this process was to gain an empathic understanding of the problem to be solved. This was achieved by putting aside any assumptions regarding the task and attempting to think from the perspective of the user to identify their needs and potential problems which they may face.

Market Relevance:

Roughly 42% of UK marriages now end in divorce⁴, costing a minimum of £1,100 for the simplest cases⁵, and an average of £14,561 when factoring in legal fees^{6 7}. A large proportion of this cost goes towards hiring a solicitor to guide the individual through any legal documents and court procedures. Unfortunately, many individuals cannot afford these services out-of-pocket and are required to apply for government funded legal-aid or forced to take out a substantial bank loan [U1].

However, the Legal Aid, Sentencing and Punishment of Offenders Act 2012 (LASPO) introduced cuts to legal aid reducing its accessibility. After the Law Society's review in 2017, it was concluded that: "Legal aid is no longer available for many who need it, those eligible for legal aid find it hard to access, [and] wide gaps in provision are not being addressed".⁸ For many impoverished individuals, the introduction of LASPO stripped away financial security [U2] as legal aid became unavailable unless evidence of "domestic violence or child abuse"⁹ was provided.

As such, an application which aims to restore financial security and provide an alternative to the expensive, conventional divorce process would benefit many individuals. To achieve this is to promote a DIY (do-it-yourself) divorce¹⁰ in which an individual self-represents independently of a solicitor. Given the current

¹Rikke Friis Dam and Yu Siang Teo, 'What Is Design Thinking and Why Is It So Popular?' *Interaction Design Foundation* available at <<https://www.interaction-design.org/literature/article/what-is-design-thinking-and-why-is-it-so-popular>> (accessed 1 April 2020)

²Susan Ursel, 'Building Better Law: How Design Thinking Can Help Us Be Better Lawyers, Meet New Challenges, and Create the Future of Law' (2017) 34(1) *Windsor Yearbook of Access to Justice* 28

³Jessica Helfand and Michael Bierut, 'The Design of Business – The Business of Design' *Yale School of Management* available at <<https://designobserver.com/designofbusiness>> (accessed 27 March 2020)

⁴Office for National Statistics, 'Divorces in England and Wales: 2018' (29 November 2019) available at <<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/divorce/bulletins/divorcesinenglandandwales/2018>> (accessed 28 March 2020)

⁵Unbiased, 'How Much Does a Solicitor Cost?' (3 January 2020) available at <<https://www.unbiased.co.uk/life/get-smart/how-much-does-a-solicitor-cost>> (accessed 28 March 2020)

⁶Aviva, 'Cost of divorce and separation surpasses £14,500 for UK couples' (11 January 2018) available at <<https://www.aviva.com/newsroom/news-releases/2018/01/cost-of-divorce-and-separation-surpasses-14500-pounds-for-uk-couples/>> (accessed 28 March 2020)

⁷Aimee Davis, 'How Much Does a Divorce Cost?' (6 September 2018) *The Money Advice Service* available at <<https://www.moneyadviceservice.org.uk/blog/how-much-does-a-divorce-cost>> (accessed 27 March 2020)

⁸The Law Society, 'LASPO Act' (8 August 2019) available at <<https://www.lawsociety.org.uk/policy-campaigns/articles/laspo-act/>> (accessed 28 March 2020)

⁹Legal Aid Agency, 'Scope of Family Proceedings Under LASPO' (1 June 2014) available at <<https://www.gov.uk/guidance/work-out-who-qualifies-for-civil-legal-aid>> (accessed 28 March 2020)

¹⁰The Money Advice Service, 'DIY (do-it-yourself) divorce or dissolution' available at <<https://www.moneyadviceservice.org.uk/en/articles/diy-do-it-yourself-divorce-or-dissolution>> (accessed 28 March 2020)

climate of increasing self-representing litigants in courts, with a reported 30% increase across all family court cases in which neither party had legal representation¹¹, an application which aims to aid this group appears increasingly relevant.

Unfortunately, many individuals are still either unaware of this option [U3], or do not have the confidence or experience to complete the legal process on their own [U4]. This is exacerbated by the fact that many individuals tend to feel isolated in the time of divorce and often do not have a support structure in place to help with their struggles [U5].

In light of this, an application which provides unbiased information on the divorce process, affordable legal assistance, and an abstraction from the complexities of the law, should improve access to justice in the divorce process for a relatively large number of potential divorcees.

Competitor Analysis:

Firstly, research was conducted into current applications which provide aid in access to justice (Appendix 2). This highlighted the current issues which users face whilst using the current solutions. It was found that many mobile apps do not offer a fully implemented and comprehensive guide through the entire divorce process [U6]. Additionally, many of these apps lacked the polished user-experience one would experience when contacting an established law firm, resulting in the user feeling insecure, unsupported and hesitant to place trust in such applications [U7].

However, outside of mobile-applications, there are numerous services offering divorce services online. Whilst these services are generally reputable, many of them lack the personal touch one would receive from a hired solicitor and did not provide comprehensive support throughout the divorce [U8]. Furthermore, a large majority of the information available on the internet contained a somewhat biased presentation of facts [U9]. In addition, it was found that many of these services included either hidden costs to complete the process [U10] or simply acted as advertisements to promote contact with a solicitor [U11].

In many cases, the information presented was either over-simplified or overly complicated and difficult to comprehend [U12] as very few services managed to achieve a balance. Nonetheless, free services such as Citizens advice offer unbiased advice alongside free legal services, yet their capacity is extremely limited. LASPO reduced their budget by 19 million¹², meaning they can only assist a small percentage of people [U13].

User Evaluation:

An access to justice report¹³ was studied to identify the key parties affected by LASPO and an extensive list of potential users was created. It is important to note that at this stage, the target audience has been kept intentionally broad in order to ensure as many perspectives are considered as possible.

¹¹ Gabrielle Garton Grimwood, 'Litigants in person: the rise of the self-represented litigant in civil and family cases' *House of Commons* (14 January 2016) 6

¹² James Organ and Jennifer Sigafoos, 'Research Report 118: The Impact of LASPO on Routes to Justice' (September 2018) *Equity and Human Rights Commission* 11

¹³ House of Commons Justice Committee, 'Impact of Changes to Civil Legal Aid Under Part 1 of the Legal Aid, Sentencing and Punishment Act 2012' (The Stationery Office Ltd, 2015)

#	Users
1	Impoverished individuals (who cannot afford legal counsel).
2	Ignorant individuals (not aware of their legal rights).
3	Individuals overwhelmed by the complex nature of the law.
4	Litigants in person (individuals looking to self represent themselves in court)
5	Children struggling to understand the process of their parent's divorce.
6	Spouses seeking guidance on the divorce process.
7	Individuals in long term separations (who have opted not to complete a divorce)
8	Lawyers wishing to better inform their clients.
9	Disabled individuals (dyslexia, learning disabilities, visual impairment).

This was then refined into a set of distinct personas. (Appendix 3) which allowed the team to assign a fictitious face to the potential users. This ensured all future design decisions could satisfy a specific persona's desires and frustrations in mind, ensuring the product was always user-centered and aiming to solve the specific problems which the users face¹⁴. These could then be refined further into user stories (Appendix 4) which capture a description of each software feature from an end-user perspective. These stories followed the format of: "As a < *persona* >, I want < *requirement* > so that < *outcome* >".¹⁵

Requirement Elicitation:

Now that the problem had been adequately researched, the empathise stage of the design thinking process could be concluded. Following this, the team began defining the problem which must be solved through a series of requirements. A simplified version of the IEEE Software Requirements Specification¹⁶ proved the most effective approach. This involved identifying the purpose, intended audience and scope, and then defining the user requirements and subsequent product features (Functional requirements) alongside a set of user expectations and product properties (Non-functional requirements).

Firstly the scope of the project was refined by reducing the potential target audience to ensure it remained as targeted as possible to a specific subset of people.¹⁷ Notably, it was decided that the application should only target individuals whose divorce does not present any external complications such as complex financial disputes.

Following the refined scope, a series of precise requirements was identified via the use of rapid applied prototyping. This involved an iterative process of brainstorming ideas, evaluating them, creating a succinct table of requirements, and evaluating these requirements against the identified user and legal issues.

Requirements Specification:

¹⁴ Tomasz Miskiewicz and Kenneth A. Kozar, 'Personas and user-centered design: How can personas benefit product design processes?' (2011) 32(5) *Design Studies* 417

¹⁵ George Krasadakis, 'How (and Why) to Write Great User Stories' (22 June 2018) *freeCodeCamp* available at <<https://www.freecodecamp.org/news/how-and-why-to-write-great-user-stories-f5a110668246/>> (accessed 29 March 2020)

¹⁶ ISO/IEC/IEEE International Standard - Systems and software engineering -- Life cycle processes -- Requirements engineering available at <<https://ieeexplore.ieee.org/document/6146379>> (accessed 26 March 2020)

¹⁷ Chuck Cohn, 'Steps To Identify Your Target Market' (6 February 2015) *Forbes* available at <<https://www.forbes.com/sites/chuckcohn/2015/02/06/steps-to-identify-your-target-market/#72a522cd229d>> (accessed 2 April 2020)

1. Introduction:

1.1. Purpose:

The purpose of this product is to provide specialised support to individuals struggling with the difficulties of self-representation in the divorce process.

1.2. Target audience:

Individuals affected financially by LASPO whose divorce presents a simple, uncomplicated process which will not require a solicitor but would still benefit from support in self representing.

1.3. Scope:

Simple collaborative non-contentious divorces where both parties remain amicable, cooperative, and do not wish to go to court.

2. Functional requirements:

#	User Requirement	System Requirement (Product features)	Addressed Issues
R1	Use simple language to explain key legal concepts.	Provide a section containing simplified but comprehensive legal information which is relevant, organised and unbiased alongside links to further reading.	U1, U4, U8, U9, L1, L2, L9, L12
R2	Securely gather circumstantial user data and help users make complicated scenario based decisions.	Provide a means of gathering information about a user's situation through a friendly, personalised eligibility questionnaire	U1, U3, U4, U8, L2, L3, L4, L6, L8
R3	Offer personal guidance and support through the entire divorce process.	Provide a personalised and simple to follow step-by-step map of the required steps in the divorce process which breaks down the process into its fundamental steps.	U4, U5, U6, U7, L8
R4	Abstract the user from the complexities of the legal documents	Implement a feature which uses the gathered user data to auto-complete the forms required and abstract the user from the legal process.	U10, L8
R5	Enable users to connect with other users.	Provide a community driven discussion forum for users to connect with each other.	U5
R6	Let users create an account to store personal details and save their progress	A simple account creation process to store user details in a secure database	U6, U7, U8

3. Non-functional requirements:

#	User Expectations	System Expectations (Product properties)	Addressed Issue
R7	Complete user privacy.	Secure database access protocols which encrypts sensitive user data and prevents third-party access.	U7
R8	There should be adequate content before requiring payment.	All information available through the app to be freely accessible, and with the user only paying to receive completed documents	U2, U10, U11, L11
R9	The product should provide good value for money	The service will not aim to make an extortionate amount of money from each user, instead opting to simply take a tiny cut from the total cost of the divorce.	U2, L11
R10	It should be clearly stated what the user is paying for	The system will clearly identify which services cost money and it will be clear how much they cost, as well as an explanation as to why they are worth it.	U10, U11,
R11	The user experience must feel natural and intuitive.	Designed following industry standards of UX design	U8
R12	The application should run smoothly on the users device without major bugs.	System must be created using best coding practices and be thoroughly tested for performance issues before being released	

Legal issues:

As part of this section, all identified legal issues will be indexed with “[L1], [L2] ... [Lx]” notation in reference to the issues table in the appendix below (Appendix 5)

Substantive Law:

In the UK, a divorce must be initiated by a “petitioner” filing a petition to the “respondent”. The first issue here lies in this immediate distinction between roles in the divorce process, with many individuals unaware of how their role affects their position in the divorce process. **[L1]**

The overriding principle for a divorce to be granted is that the “marriage has irretrievably broken down”¹⁸ after at least one year of marriage¹⁹. For a divorce applicant to prove this, one or more of the five statutory categories must be satisfied. However, despite these grounds being clearly defined and further information readily available online²⁰, one key issue identified was the lack of comprehension the general public possessed of these grounds **[L2]** and, in turn, the lack of ability to perform thorough legal research into them.

1. Adultery:

The first category which a petitioner can rely on to get a divorce is that of adultery²¹. For a petitioner to rely on this category, they must prove that their spouse committed adultery during the course of the marriage with an individual of the opposite sex, making it unreasonable for the petitioner to continue living with their spouse. To satisfy this ground, a petitioner must be aware of the dates and places where the adultery took place and, if possible, the third individual with whom their spouse committed the adultery. The main issue which arises here

¹⁸ Matrimonial Causes Act 1973, s.1

¹⁹ Nigel Lowe and Gillian Douglas, *Bromley's Family Law* (11th edn, OUP 2015) ch 7

²⁰ 'Get a divorce' available at <<https://www.gov.uk/divorce>> (accessed 29 March 2020)

²¹ Matrimonial Causes Act 1973, s.2(a)

is the requirement of specific details as evidence [L3], which requires cooperation from the accused party in a potentially emotionally unstable time, or preemptive measures to be taken by the petitioner in recording instances of adultery.

2. Unreasonable behaviour:

The second category requires a petitioner to prove that their spouse has behaved in a way making it unreasonable for the petitioner to continue living with their spouse²². Typical examples of such unreasonable behaviour include: physical and verbal abuse, unreasonable sexual demands, social isolation, financial recklessness and even excessive lack of sex²³. The major issue with pursuing this category lies within its ability to cause confusion to a user as a result of its broadness and lack of specific definition [L4].

2.1. Attributing fault:

Due to the nature of the above two grounds, it is required of the petitioner to attribute blame on the other party. As a result, further complications are commonly added to the divorce process, with 70% of couples saying using fault made the process more “bitter”, 21% stating that it made it more difficult to make child arrangements, and 31% claiming it made it harder to sort out finances²⁴ [L5].

3. Desertion:

The third available ground is desertion²⁵. For a petitioner to satisfy this category, he/she must prove that the petitioner has satisfied the following four elements:

- Firstly, that the petitioner’s spouse has left for a continuous period of two years.
- Secondly, that the spouse who has left regards the marriage to have come to an end, essentially meaning that the spouse left intentionally and permanently.
- Thirdly, that the spouse left without “just cause”.
- Fourthly, that the petitioner did not consent to their spouse leaving them.

Similar to the previous grounds, the major issue found within filing for desertion lies in the fact that the petitioner must provide distinct evidence of intent, cause and consent without much detailed guidance as to what constitutes substantial evidence. [L6]

4. Separation (Collaborative):

The fourth available category of separation is available when a married couple has been living apart for a continuous period of two years²⁶. The particular ground can only be utilised by couples, both of whom consent to a divorce²⁷. In order to rely on this ground, it is not essential that the two parties live in separate houses as long as they live separate lives. Furthermore, if during the two-year period the couple has resumed their married life for a period of less than six months, they will still be eligible to rely on this ground.

Of all the divorce grounds, filing under separation is by far the simplest, most affordable, and least complicated approach. Unfortunately, the main issue here is that a large proportion of couples are not willing to wait out a period of two years after splitting with their partner. [L7] This can cause numerous issues regarding child custody, financial assets and anything else which may require court intervention.

²² Ibid s. 2(b)

²³ Edwina Higgins and Kathryn Newton, 'Seeking a Divorce' in Ruth Lamont (ed), *Family Law* (1st edn, OUP 2018)

²⁴ Liz Trinder, Debbie Braybrook, Caroline Bryson, Lester Coleman, Catherine Houlston, and Mark Sefton, 'Finding Fault? Divorce Law and Practice in England and Wales' *Nuffield Foundation* available at <https://www.nuffieldfoundation.org/sites/default/files/files/Finding_Fault_full_report_v_FINAL.pdf> 15

²⁵ Matrimonial Causes Act 1973 s.2(c)

²⁶ Matrimonial Causes Act 1973 s.2(d)

²⁷ Edwina Higgins and Kathryn Newton, 'Seeking a Divorce' in Ruth Lamont (ed), *Family Law* (1st edn, OUP 2018)

5. Separation (Non-Collaborative):

The fifth and final ground which can be used is that of a couple living apart for a continuous period of five years²⁸. This category shares the same requirements of the two year separation mentioned above with the only difference being that the consent of both parties is not required.

Divorce Procedure:

One major issue which limits access to justice is the general public's lack of ability, and willingness, to read and complete the required legal documents [L8]. To many individuals, the sheer effort and financial investment required in undergoing a divorce simply isn't worth their time and instead simply opt to separate from their partner.

A 2012 study on long term separation has described it as a "low-cost, do-it-yourself alternative to divorce for many disadvantaged couples". The study, involving 8000 participants, recorded that 60% of individuals first tried marital separations, of which 80% moved on to divorce. Among the remaining 20%, 15% remained in long term marriage separations²⁹. The study notes that "those who remained separated were more likely than those who divorced to have a high school or lower education" thus identifying a key issue being the lack of education [L9] and the role it plays in influencing decisions on divorce.

Despite this, once broken down and explained in simple terms, such legal procedures can be reasonably straightforward and even automated in many cases. Financial arrangements, however, present a whole different issue which, in the vast majority of cases, will in fact require the aid of a solicitor. [L10]

A simplified roadmap of the divorce process is as follows:

- The petitioner files an initial divorce petition³⁰ (D8 form) which requires evidence of the marriage "irretrievably broken down."
- This form is sent to the court alongside a fee of £550.
- The respondent receives an acknowledgement of service form.
- The petitioner applies for a decree nisi in order to confirm that all procedural and legal requirements have been met.
- At this stage financial arrangements are made between parties
- After six weeks, the petitioner is able to apply for a decree absolute to formally end the marriage.

Lack of funding:

As previously mentioned, LASPO cut all legal aid funding for family law cases with the exception of cases where abuse has occurred. Specifically, private family law cases are no longer eligible for legal aid funding in an attempt to encourage individuals to find out-of-court solutions³¹. As a result, many individuals who pursued cases in the sphere of private family law such as divorce were no longer eligible to receive legal aid funding to assist in the payment of solicitors' fees [L11]. Indicatively, between 2013-2017 there was a 22% increase in the number of family law cases which ended up in court without legal representation³².

Additionally, the introduction of LASPO has been noted to create: less efficient administration from courts as self-representing people generally do not know how the procedures work, reduced number of cases utilising alternative-dispute-resolution (ADR) techniques as unguided people are less likely to resolve matters outside

²⁸ Matrimonial Causes Act 1973 s.2(e)

²⁹ American Sociological Association, 'Marital separations an alternative to divorce for poor couples' (19 August 2012) *EurekaAlert!* available at <https://www.eurekaalert.org/pub_releases/2012-08/asa-msa081412.php> (accessed 8 April 2020)

³⁰ Stephen Gilmore and Lisa Glennon, *Hayes & Williams' Family Law* (6th edn, OUP 2018) ch 2

³¹ James Organ and Jannifer Sigafoos, 'The Impact of LASPO on Routes to Justice' *Equality and Human Rights Commission* (2018) available at <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/866625/d8-eng.pdf> (accessed 31 March 2019)

³² Ibid

of court³³, and finally an increase in court intervention as people self-representing tend to lack the skills to manage their cases efficiently, thus increasing the stress on courts³⁴.

Moreover, a Citizens Advice study found that self-representation was difficult and draining for those involved and made the process needlessly more complicated³⁵. This indicates that individuals seem to be opting for self-representation out of necessity rather than actual preference and, unfortunately, these issues became even more pronounced when the individual suffered from health issues or other disadvantages³⁶. From this, it could be concluded that by targeting these kinds of cases, the strain of the legal system could be somewhat relieved whilst also helping individuals achieve better results and, as a result, increase access to justice.

³³ Anne Barlow, 'Rising to the post-LASPO challenge: how should mediation respond?' (2017) 39(2) *Journal of Social Welfare and Family Law* 203, 222.

³⁴ Gabrielle Garton Grimwood, 'Litigants in person: the rise of the self-represented litigant in civil and family cases' *House of Commons* (2016) 9

³⁵ Katherine Vaughan and Roberto Merola, 'Divorced from Reality' (March 2017) *Citizens Advice Bureau* available at <[https://www.citizensadvice.org.uk/Global/CitizensAdvice/Crime%20and%20Justice%20Publications/Divorcedfromreality%20\(1\).pdf](https://www.citizensadvice.org.uk/Global/CitizensAdvice/Crime%20and%20Justice%20Publications/Divorcedfromreality%20(1).pdf)> (accessed 29 March 2020) 7

³⁶ Liz Trinder, Rosemary Hunter, Emma Hitchings, Joanna Miles, Richard Moorhead, Leanne Smith, Mark Sefton, Victoria Hinchly, Kay Bader and Julia Pearce, 'Litigants in person in private family law cases' (2014) *Ministry of Justice* available at <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/380479/litigants-in-person-in-private-family-law-cases.pdf> (accessed 29 March 2020) 27

SOLUTION

The third stage of the design thinking process was to ideate a range of solutions which address the identified issues and requirements defined previously. A range of proposed initial solutions considered before deciding on the final solution can be found in appendix 6.

Overview:

There appears to be no UK-based mobile application on the market which combines the features of the apps examined in the case study into one centralised application. As such, we propose a solution which provides guided management and legal aid throughout the entire divorce process in order to better a user's access to justice. The comprehensive application can be broken down the into 4 key categories:

- **Education:** Provides legal education regarding divorce in plain english, including a dictionary explaining relevant legal terms.
- **Eligibility:** Utilises a decision tree to identify whether a user is eligible for a divorce through a friendly, personal questionnaire. If not eligible, the user will be directed to the education section which describes the criteria.
- **Guidance:** Presents a guided DivorceGPS through the divorce using process mapping techniques. For each section of the divorce process, intelligent algorithms will unobtrusively gather user data to auto-complete the legal forms for the user and abstract them from the process.
- **Support:** Offers a discussion forum for users to discuss and relate their process with others. Also enables users to connect with other professionals for further external guidance.

Access to Justice:

This solution aims to create a comprehensive support structure throughout the divorce process in order to alleviate the stress, struggles and complications individuals may find in opting to self represent themselves. As such, access to justice is aimed to be improved by:

- Minimising the cost of legal support.
- Increasing the accessibility of self representation.
- Reducing the strain on courts.
- Mitigating the impact of LASPO on legal aid.
- Informing interested parties of their legal rights
- Providing guidance to interested parties on how to act based on their newly-informed legal rights

As mentioned in the previous section, access to justice in divorce has been severely affected in recent years due to governmental budget cuts (LASPO) which removed the availability of legal aid funding for private family law cases such as divorces. Many individuals no longer have access to someone who can provide them with advice on how to enforce their legal rights and are left to deal with it independently. This, coupled with the complexities of the law, has severely diminished access to justice.

User Journey:

As displayed in the attached diagram, the user journey for the proposed solution is relatively straightforward and navigated through a navigation bar with the five key sections.

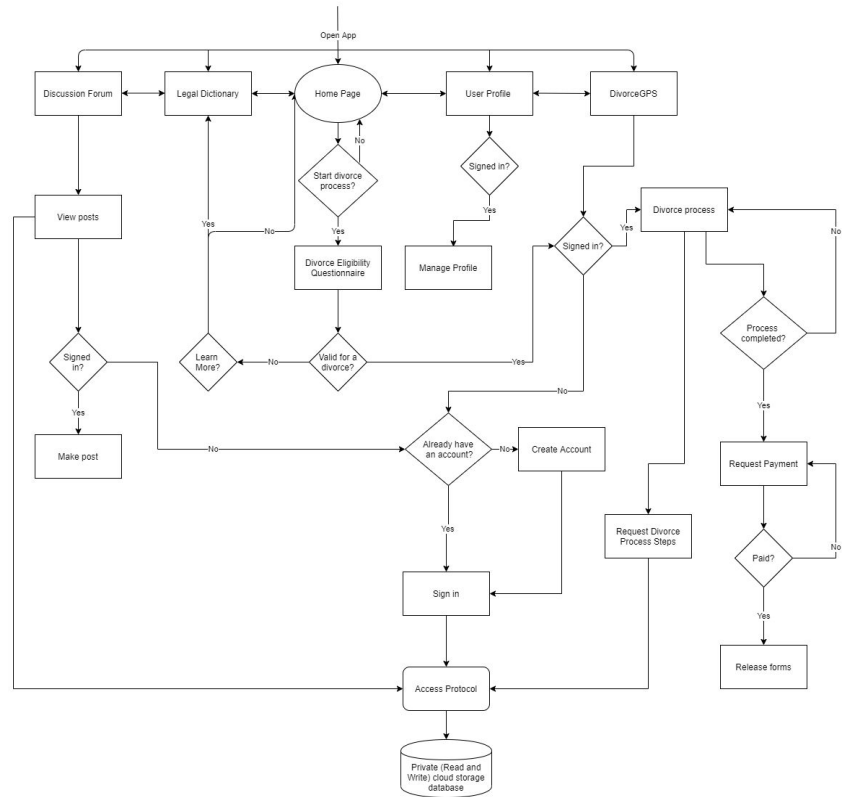
Upon opening the app, the user will be prompted to start the divorce process through an eligibility questionnaire.

If they are deemed valid for a divorce, they will be prompted to create an account and progress onto the divorceGPS section.

Within the divorceGPS, the user will be provided with the knowledge, tools and guidance to complete all the necessary divorce processes, and, with the aid of the auto-form completion, they will be abstracted from the legal process.

If they are not deemed eligible for a divorce, the user will be redirected to the legal dictionary section to find supporting information.

Lastly, the discussion forum section which can be accessed at any point through the navigation bar the user will be able to view and create posts to share with the community.



Main features and benefits:

Features	Description	Benefits	System requirements
Legal dictionary	A searchable database containing individual pages of legal information which will explain each key legal concept or term in plain and understandable English.	The user will now be able to quickly and easily search for any relevant legal information to guide them through the divorce process	R1
Legal term popup	When encountering a legal concept, there will be an accompanying popup providing a short explanation of the concept and a link to the relevant dictionary page.	The user will never feel overwhelmed by the content, however the content will not need to be oversimplified of legal terminology. This also prevents the amount of user navigation around the application.	R1, R11
User Questionnaire	Each user will have to complete a questionnaire which will seek to gather all required information in a friendly and personalised manner. This will be done through a fictitious persona, programmed with simple questions to form a basic Q&A rapport with the user.	Each user will only be asked the specific information needed to establish his/hers legal rights rather than overwhelming them with unnecessary questions.	R2
Personalised advice	Each user will receive personalised advice where the facts they have provided through the questionnaire will be applied to the substantive law to produce unique advice.	The users will receive advice based on the information they have provided the app rather than being exposed with general information on what the law says.	R3
Divorce GPS	Through the use of legal process mapping, each user will be presented a personalised roadmap of their divorce process, detailing exactly what steps must be taken.	By offering a clear, visual view of the entire procedure the user is always aware of what must be done next in the divorce process. This will ensure they always feel supported and guided.	R3
Auto-form completion	Using an intelligent algorithm, the system will use the gathered user data to fill in as much of the legal forms as possible.	This means users no longer need to struggle through tedious legal paperwork as the process can be abstracted out into the friendly and simple questions	R3, R4
User discussion forum	A simple community driven discussion forum will be available for users to interact with a community of relatable individuals and professionals	This will ensure the user does not feel isolated during their divorce process, and will hopefully mitigate impact of the lack of human interaction.	R5
Account creation	A simple username and password protected user account will save all progress and store relevant user information.	This will ensure that each process remains as individual and personalized as possible. It also ensures user progress is saved	R6

		across sessions in a secure database.	
Payment	Users will only be charged once they wish to receive their complete forms after completing all the required questionnaires.	There will not be any hidden costs for the user and all the services for free up until this point, if they find the content unsatisfactory they will not be charged for the services.	R8, R10

Evaluation:

The proposed solution has been strictly developed in accordance to the specific system requirements established within the previous section. By following this strict structure, it has ensured that the proposed solution is designed specifically to address the original issues identified. Additionally, through basing every aspect of the solution on the defined requirements, it ensured that the scope of the project remained fixed and ensured that every proposed feature served a specific, desired purpose.

However, as a part of adhering to a strict scope, certain issues such as complications involving financial agreements were not possible to address. Despite this, with the proposed initial solution in place, it provides a strong groundwork for these more complex features to be implemented at a later date. As part of tracking the implementation of all identified issues, a traceability matrix was created which maps the user issues, requirements and proposed features in a structured table. (Appendix 7)

Risks and risk management:

A thorough risk assessment was completed before beginning work on implementing any features in order to ensure that the team was aware of any potential problems which could arise. Being aware of, and actively working towards mitigating the impact of any risks will ensure that the project remains successful at addressing the user's issues.

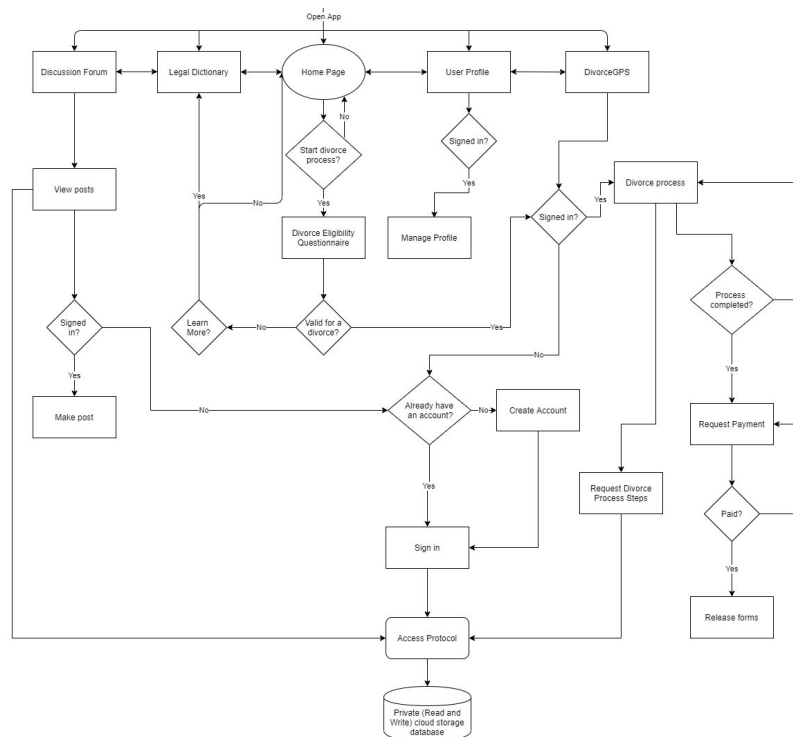
#	Risk	Assessment	Mitigation
1	Data Security	Users provide sensitive personal information to our solution, such as details of how their spouse has misbehaved towards them.	To ensure that our users can feel secure there will be multiple layers of authentication required to access the data, alongside secure access protocols preventing any data breaches.
2	Accuracy of Law	Our solution aims to inform our users of their legal rights and we expect that a large amount of trust will be placed on us from their behalf. We therefore, must ensure that the advice we provide them with accurate and correct from a legal point of view.	To ensure the accuracy of the law, we will employ a legal team to ensure that not only is the legal jargon accurate, it is also presented in simple terms that a layman can understand.
3	Ongoing legal developments	The substantive law is fast-changing either through new court rulings or new legislation being passed in parliament. An example of this is the	Legal team to keep the app content up to date.

		'no-fault divorce' bill which is speculated to be put in for a vote in parliament sometime in the future.	
4	Maintaining a competitive advantage	In recent years, there has been a huge increase in the use of technological solutions in the provision of legal services. It is therefore, to be expected, that the competition in the market of our solution will increase in the coming years.	We will keep a close eye on our competitors and analyse any features that are present in their products. This will give us the advantage of knowing if we can make positive changes.
5	Securely taking payments	Those customers who are using our application could be concerned over their payment info being leaked, thus we must ensure that on top of their account info being kept secure, we shall make sure their payment information is too.	To ensure that our customers are confident of paying on our app, we will use the respective app store functionalities to handle all payments.
6	Inappropriate access	Users may be in situations where their partner has access to their phone and would like additional layers of security to prevent unauthorised access.	We will employ multi factor authentication.

SPECIFICATION:

Process map:

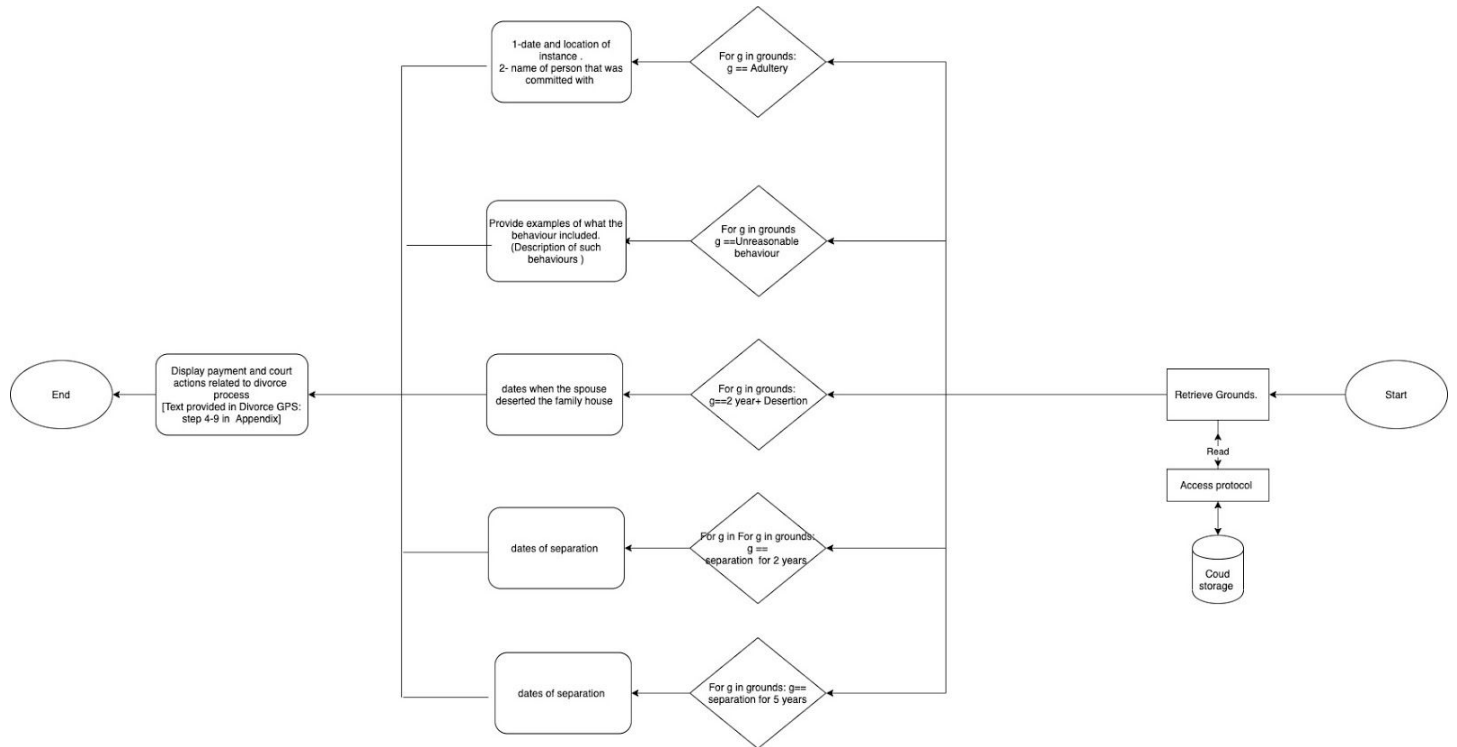
High Level system architecture:



Eligibility Questionnaire:



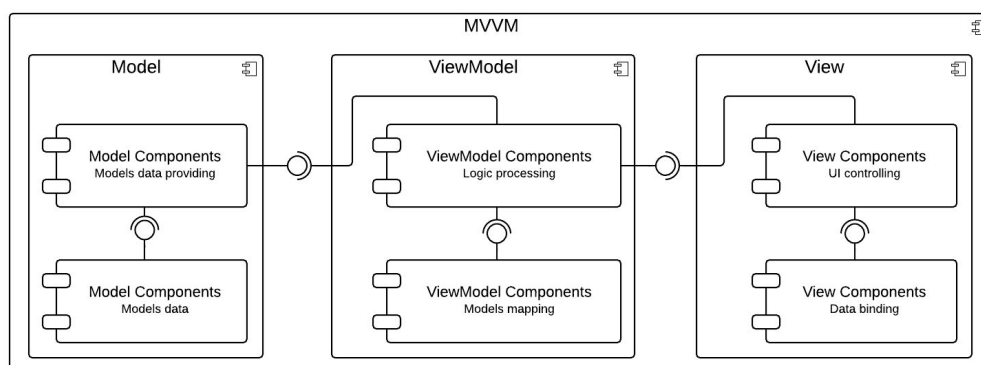
DivorceGPS:



Technical specification:

Given that the proposed application does not depend on lightning fast performance, does not require native API access and it is of highest importance to reach the largest target audience possible, a technology stack which supports cross-platform development seems most appropriate. As such, Microsoft's popular frontend library, React Native, is proposed to build a Javascript mobile application which can be compiled into respective Android and IOS apps with almost identical features to an app written using native tools.

In accordance with industry standards in developing large-scale mobile applications, the proposed system architecture will be developed following the Model-View-ViewModel (MVVM) structural design pattern. This pattern separates objects into three distinct groups: Models which hold application data, Views which display visual elements and controls to the user, and ViewModels which transform information from the models into values which can be displayed in the View.



At the cost of writing slightly more code, this pattern provides much needed structure and consistency within the codebase. MVVM ensures complete decoupling of the user interface (View), the business logic (View model), and the database (Model). This offers numerous benefits such as:

- Reusable, modular, and scalable code making further development and maintenance less complicated.
- Easily integrated unit testing due to a lack of internal dependencies.
- Increased system performance due to reduced bottlenecks.

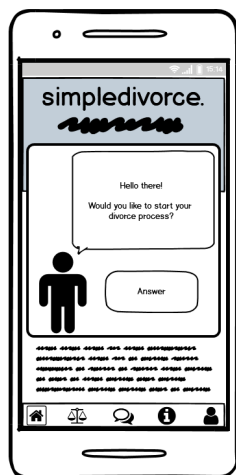
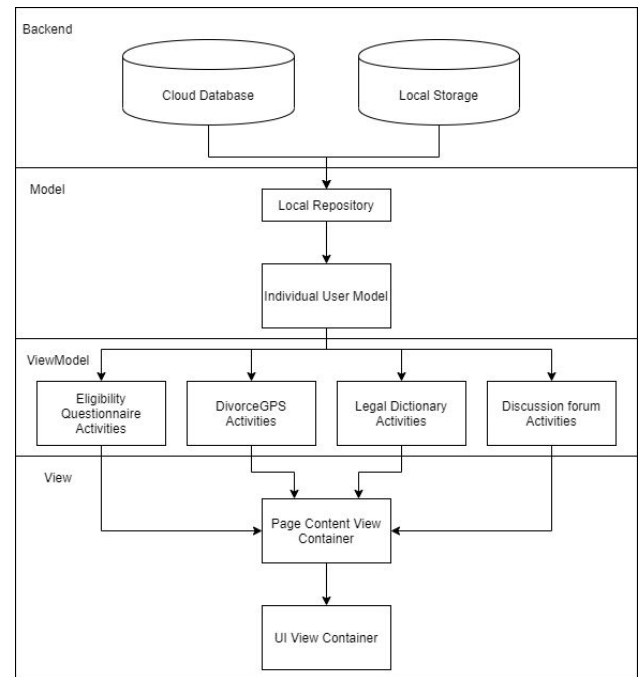
System architecture:

As displayed in the abstract diagram to the right, the application will consist of a background UI View (the title, background and navigation bar) which remains consistent throughout all pages of the application.

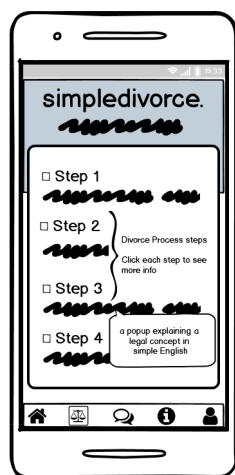
On top of this is placed a Page Content View which will contain the specific information relevant to that page. Within this view, the application will request information from the ViewModel through dedicated activities to display the relevant content which differs between each individual user.

Such individual content will be provided from the Individual User Model, which requests secure data from a cloud storage database alongside any non-sensitive local data.

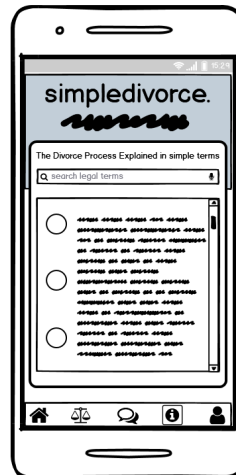
Following such architectural decisions, low-fidelity prototypes were created in accordance to the fourth stage of design thinking, prototype, to demonstrate the flow and feel of the application as can be seen in appendix 8,9. These were created in alignment with industry standard principles of UX design.



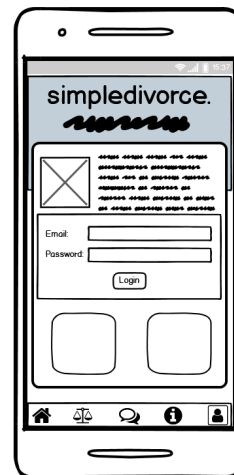
Eligibility Questionnaire



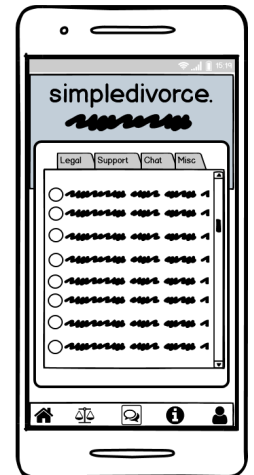
DivorceGPS



Legal Dictionary



User Profile



Discussion forum

Features:

1. Eligibility Questionnaire:

This section will use a basic decision tree structure (which is essentially a series of nested if loops) dictated by the user input. Whilst natural language processing (NLP) was considered for interpreting user input it was deemed unnecessary and overly complicated, alongside bringing in potential risks of parsing incorrect data and providing inaccurate outputs as a result. Given the sensitive nature of this feature, it was decided that predefined inputs which could be assessed with 100% accuracy would be the optimal approach. This ensures that the application will always provide accurate and precise information to the user in order to alleviate any worry about misunderstanding the law. This will aim to fulfil requirement 2 of securely gathering circumstantial user data to help them make complicated scenario based decisions.

2. DivorceGPS:

After going through the eligibility questionnaire and establishing which ground the user's divorce fits into, this section will help the user know exactly which steps they must take through comprehensive process mapping

techniques. This process can be seen in appendix 10 and will aim to satisfy requirement 3 of offering personal guidance. In addition, the legal team has gone through all the relevant paperwork for the divorce process and established exactly which details are required from the user and saved them as a series of variables (keys). From here, the application will be able to extend the work of the eligibility questionnaire by gathering and storing the individual's personal information into a hashmap within an AWS database where the key is the data field, and the value is the user's input. This data can then be used to auto-complete the required forms without the user ever needing to see the physical documents and, as such, the user will be effectively abstracted from the legal process as detailed by requirement 4.

3. Legal Dictionary:

This feature will present a database of key legal terminology collected using web scraping algorithms to extract legal terminology and concepts from The Law Society's legal glossary³⁷. This will be reviewed and edited by the legal team to ensure that all the information is presented in simple terms which are understandable to the average individual in order to satisfy requirement 1 of simply explaining key legal concepts. Following this, the data will be stored into a scalable cloud relational database (Amazon RDS) using MySQL. This will employ efficient indexing of data entries to ensure consistent fast lookup of all queries. Additionally, the application will locally store the first thousand popular searches in a hashmap key-value data structure to ensure the most essential data is accessible offline whilst also providing increased performance. In addition to this, the application will implement a pop-up feature explaining key legal concepts whenever they appear in the application in order to mitigate the need of users switching between pages often to find information.

4. User Profile:

The application will track and store individual user profiles alongside encrypted private data using Amazon's Identify and Access management (IAM) feature to assign users an individual access token to decrypt their private data. In addition to this, the implementation of multi-factored authentication for each access token will require a strong password, alongside external features such as SMS and email verification. This enables the user to write and read information to and from the database securely by assigning them individual permitted access. As such, the user's data and application progress can be stored and accessed remotely in accordance to requirement 6.

5. Discussion Forum:

The discussion forum will be hosted on the cloud using AWS and Linux, as this allows scalability of the storage required as users demand grows. By creating a new Elastic Computing (EC2) instance with a capacity of 3 GB RAM using Amazon Linux and 2 GB of Elastic Block Storage (EBS), this will be enough to begin with as we will have a limited number of users at the start of the project. The completion of this feature is based on R5.

Data Security:

AWS is a cloud computing platform which has a shared security model. AWS's main responsibility is the underlying infrastructure security, leaving the responsibility for securing what goes on the cloud and what connects to the cloud to the development team. To handle data security these steps must be taken into account :

- First, encrypt data while it travels to and from cloud storage. This ensures that data is properly controlled and can not be accessed by unauthorised users.
- Second, ensure network and infrastructure security. Including the adoption of effective practices to mitigate DDoS attacks.
- Third, ensure the security of their own code and their host against attacks.

³⁷ Available at <<https://www.lawsociety.org.uk/for-the-public/legal-glossary/>> (accessed 11 April 2020)

Payment:

To make payment convenient, it will be handled via the native app store methods (google play credits). Despite the excessive transaction fee of 30%, this ensures complete security and peace of mind in making the payment whilst also contributing towards the respective distribution and hosting fees.

Testing:

Due to the prototypes being low-fidelity, the methods used to evaluate them are relatively limited and abstract. Despite this, cognitive walkthrough techniques were used to put ourselves into the perspective of the defined personas in order to walk through a series of tasks which interact with the system (Appendix 11). This approach is particularly effective at capturing the full user experience including the flow between features. In addition to this, the user interface was evaluated against Nielsen Norman's heuristics of design³⁸ to ensure a standard of design principles were followed in accordance with global standards.

However, the above two testing methods are limited in testing the specific functionality of features to identify key bugs. In order to address this, comprehensive use case tests will be established once a finalised prototype is completed for QA testers to determine if the specific functionality of features is working as intended. This is at the cost of paying a full salary for a QA tester and taking a substantial amount of time to complete. Lastly, after the product has been released, the developers will monitor feedback through user reviews alongside focus groups. This ensures the product is satisfying the users and always maintains a competitive advantage.

System compatibility:

As React native is going to be used, the system will be compatible with both iOS and Android phones and allows a large number of users to access the application with their preferred system. Despite these benefits, the cross-platform solution results in slightly lowered performance yet this should not impact the user experience given the app doesn't require much processing power. As the decrease in performance will not be noticeable by regular users, the resulting decrease in development cost makes it a worthy compromise.

Implementation plan:

These decisions were made on the basis of the team's experience of the software engineering module (SEPR) alongside other personal experiences in order to remain as realistic and accurate as possible. As such, to turn this project from a low-fidelity prototype to a real life product, it is estimated to require a group of:

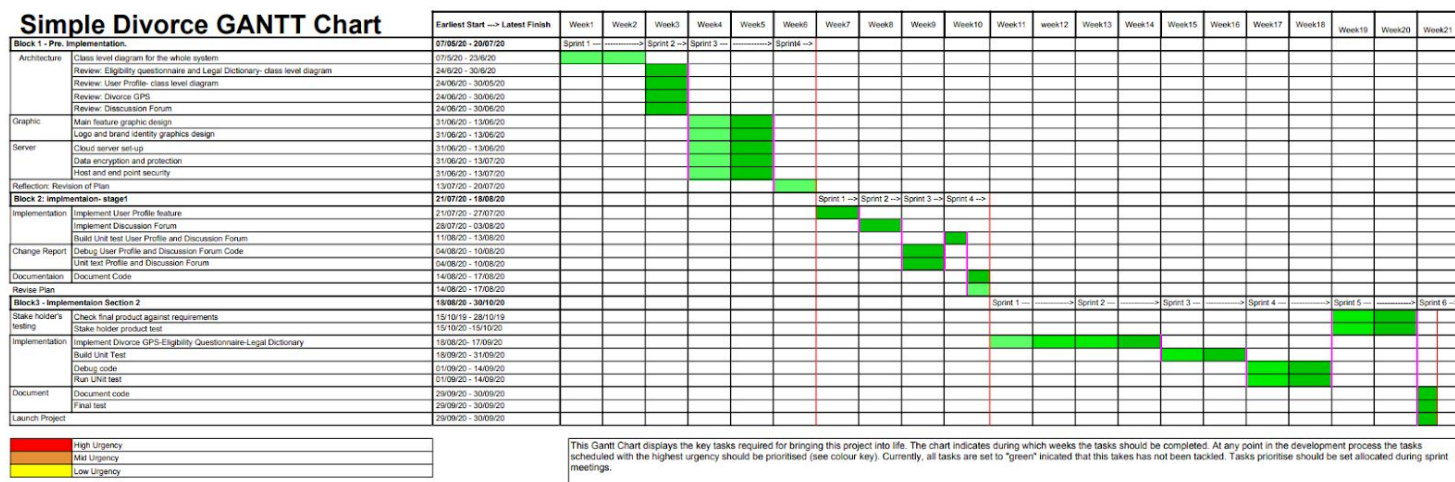
- Two contracted software developers for a period of six months.
- One project manager for a period of six months.
- One marketer for a period of two months.
- One contracted graphic designer as required.

It was decided to follow the traditional agile project management structure of Scrum³⁹. This is an iterative and incremental workflow designed to suit small teams working on a project simultaneously. Scrum details multiple individual "sprints" which each contain a small segment of the final product to be completed independently and given specific deadlines. This ensures a strict defined timeline of implementation as seen in the following Gantt chart.

³⁸ Jakob Nielsen, '10 Usability Heuristics for User Interface Design' (24 April 1994) *Nielsen Norman Group* available at <<https://www.nngroup.com/articles/ten-usability-heuristics/>> (accessed 27 March 2020)

³⁹ Available at <<https://scrum.org/>> (accessed 06 April 2020)

Simple Divorce GANTT Chart



Dissemination plan:

- Firstly, the application will be released as a beta build at a discounted price. This will initially allow us to gather feedback and start building a reputation for our application. In addition, there will be a regularly updated blog with a discussion board where users can provide feedback.
-
- The second part of our plan includes the main advertising and promotion of the application. Initially the product will be advertised on social media via well-targeted advertisements to capture the interest of our defined user group. As our profitability increases, we aim to extend our advertisements towards television which will have a broader reach.
- After incorporating all feedback and advertising our application to maximize our user numbers, the final alpha build will be released at an increased price.
- The final part of our plan includes creating partnerships with legal clinics. This partnership will aim to provide both funding and an increased reach of the product as it is promoted to a larger audience

Costs:

Initial Expenses	Duration	Cost/year	Total
2x software developers	6 months	2 x £40,000	£40,000
1x Project manager	6 months	£45,000	£22,500
1x Marketing exec	6 months	£35,000	£17,500
Marketing	6 months	£10,000	£5,000
1x Graphic designer	1 month	£36,000	£3,000
Legal consultant	6 months	£40,000	£20,000
			£108,000

Continuous expenses	Duration	Cost/year	Total
Amazon web hosting	3 months	£1000	£250
Legal consultant	3 months	£40,000	£10,000
Software developer	3 months	£40,000	£10,000
Marketing	3 months	£10,000	£2,500
			£22,750 / quarter

Revenue streams	Profit per user
Profit per divorce process	£50

Quarterly review	Estimated users	Profit (£50 per user)	Costs	Profit	Net Profit
Q1	0	0	n/a	n/a	n/a
Q2	0	0	£108,000	-£108,000	-£108,000
Q3	200	£10,000	£22,750	£-12,750	-£120,750
Q4	500	£25,000	£22,750	£2,250	-£118,500
Year 2			Costs increase to scale		
Q5	1,000	£50,000	£30,000	£20,000	-£98,500
Q6	1,750	£87,500	£30,000	£57,500	-£41,000
Q7	2,750	£137,500	£30,000	£107,500	+£66,000
Q8	4,000	£200,000	£30,000	£170,000	+£236,000

To summarise the above tables, the product is expected to cost roughly £108,000 to initially develop with an ongoing cost of £22,750 per quarter. Based on the above model of predicted user growth per quarter, the application will break even midway through Q6 and begin making a substantial profit from this point onwards.

The critical number of users for self sustainability is roughly 500 per quarter, yet if the app is expected to break even and pay off the initial £100,000 investment, it will require substantially more.

With regards to funding for the initial £100,000 investment, multiple potential grants have been found which are oriented towards supporting legal technology solutions which aim to improve access to justice. Ideally the project would be able to self-fund itself, however due to the large initial investment required, and the relatively long development time this is simply unfeasible.

Grant	Requirements	Funding
Transforming accountancy, insurance and legal services with AI and data (small projects strand)	Apply AI and/or data techniques to improve legal services.	Up to 70% of project costs (£70,000)
Legal Access Challenge	Early prototype of a legal tech solution.	£50,000
LSC technology initiative grant	Improve legal services delivery to the low-income population.	£100,000
The Legal Education Foundation	Smarter justice grant	£100,000


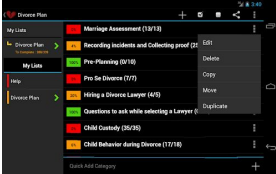
Development Thinking Appendix.

1. Meeting notes / Development record:

Date	Items discussed	To do for next meeting
16/01/2020	Initial ideas discussed. Plan of document created. Potential scope identified (divorce).	Investigate existing access to law solutions. Familiarise ourselves with family law concepts. Research the divorce process.
23/01/2020	Discussed potential users. Decided on creating an application aiding users through the divorce process.	Create user stories, personas and requirements. Further research legal cases / resources relevant for the divorce process.
28/01/2020	User stories and user requirements	Complete personas, user stories, and finalised requirements
30/01/2020	Potential solutions discussed. Legal process mapping	Further work on solutions and study divorce process flow
05/02/2020	Confirm process of undergoing divorce	n/a
06/02/2020	Potential solutions evaluated. Lean canvas studied	Create divorce process process flow charts
12/02/2020	Presentation created and practiced	Practice presentation
13/02/2020	informal presentation	n/a
20/02/2020	Legal and user issues documented and refined. Prototypes started	Finish issues table. Iterate through prototypes
21/02/2020	Work on prototypes	n/a
27/02/2020	Formal Presentation planning	Work on presentation
05/03/2020	Practice presentation	Practice presentation
12/03/2020	Formal presentation	Work on report!

EMPATHISE:

2. Case studies exploring existing law solutions:

Product	Description	Users	Pros	Cons
<p>easyDivorce</p> 	<p>A Swiss service offering guidance through the divorce or separation process by providing a step-by-step guide containing all the required documents and instructions to complete them, along with personal validation from their legal department. This costs the user a fee starting from 390 Swiss Francs (around £300). Has both a website and a mobile application.</p>	<p>Swiss couples</p> <p>Spouses seeking guidance on the divorce process</p> <p>Ignorant individuals who are not aware of their legal rights.</p>	<p>The app is well formatted, aesthetically pleasing and simple to follow, including instructional videos explaining the process. It provides succinct information about the divorce process and generates the required documents. All information is kept confidential in a personal file.</p>	<p>Not applicable to a UK audience. Cannot validate documents without paying a substantial amount of money and as such, it actually tell you if you are actually eligible for a divorce before paying.</p>
<p>Divorce Planner</p> 	<p>A simple listing app which provides 350+ tasks to aid the user in creating plans to track the process of their divorce from start to finish. The app uses colour coding to track the progress. It is monetized via ads and has the option to pay a small fee to upgrade to a premium version with extended features.</p>	<p>Individuals who cannot afford personal legal advice</p> <p>Individuals looking for organisation in their divorce process</p>	<p>Provides a framework for users to create their own divorce plans. Very simple application is easy to use.</p>	<p>Poor user interface stuck in Landscape mode creates an untrustworthy and unprofessional image. Very little guidance through the process despite having the tasks there. Ads are extremely intrusive on the experience.</p>

<p>Lawyers Online</p> 	<p>An application designed to connect Nigerian users with lawyers. The app asks which category of law (criminal, civil, family, etc) is desired, and provides a list of lawyers who have registered on the app with their personal profile containing contact information.</p>	<p>Nigerian Lawyers</p> <p>Individuals seeking legal representation</p> <p>Individuals unable to access a lawyer's office.</p>	<p>Simple app which is easy to navigate</p>	<p>Relatively poor selection of Lawyers as the app does not have a large active user base, takes a long time to log in and connect with a lawyer.</p>
<p>Law Dictionary Offline</p> 	<p>An offline database storing definitions and explanations of legal terms in order to make the law easy to read and understand. Also allows users to make new entries into the database to store their own definitions.</p>	<p>Lawyers</p> <p>curious individuals</p> <p>individuals ignorant of the law.</p>	<p>Provides a wide variety of legal terms which are explained in simple english, works completely offline.</p>	<p>Very barebones UI which is unappealing, there is very little organisation or substance to the application as definitions are not split into categories. Offline functionality is not very necessary in the UK as most users will always have internet access.</p>
<p>Citizens advice</p>	<p>A webpage full of information and guidance on the divorce process</p>	<p>Individuals ignorant of the law</p>	<p>Simple succinct information in simple terms</p>	<p>Not much guidance or complex features to offer support.</p>
<p>Gov.uk</p>	<p>A webpage full of information and guidance on the divorce process</p>	<p>Individuals ignorant of the law</p>	<p>Well presented information</p>	<p>Not much detail or guidance on what is actually required</p>
<p>Quickie divorce</p>	<p>A webpage which offers online divorce guidance</p>	<p>Individuals confused by the legal process</p>	<p>Simple and well presented service</p>	<p>Very little information available on the divorce process or what you're paying for.</p> <p>Unprofessional looking website that doesn't promote trust</p>

amicable.io	A service offering advice on how to divorce	Individuals confused by the legal process	Well designed website. Lots of free information	Only service it offers is to contact a professional.
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3. Personas:

Toby

Demographics

- Age: 28
- Occupation: Shop assistant
- Location: Birmingham

Frustrations

- Has very little money so cannot afford face to face legal consultation.
- Dissatisfied with other inexpensive applications which have limited information.

Desires

- Wants to make an informed decision about whether to go through with the divorce process.
- Wants to be able to find legal advice in a personal, concise and affordable format.
- Wants to have access to large amount of information but not to have it cost a lot.

Motivations

- Costs - 5/5
- Security - 2/5
- Comprehensiveness - 5/5
- Ease of use - 2/5
- Informative - 5/5

Robert

Demographics

- Age: 52
- Occupation: Builder
- Location: Manchester

Frustrations

- Afraid of being taken advantage of by solicitors.
- Doesn't know whether he can even get a divorce.
- Doesn't want a service that's just an advertisement for a legal firm.

Desires

- Wants to be as informed as possible about costs of getting a divorce.
- Wants to see if it would be better to self-represent.
- Wants to know whether he is eligible for a divorce in a quick and easy way.

Motivations

- Costs - 3/5
- Security - 2/5
- Comprehensiveness - 5/5
- Ease of use - 4/5
- Informative - 5/5

Mariam

Demographics

- Age: 31
- Occupation: Cleaner
- Location: Newcastle

Frustrations

- Doesn't know anything about self-representation.
- With English as her second language as well as suffering from dyslexia, she struggles with text intensive interfaces.

Desires

- Wants to gain a greater understanding of the divorce process.
- Wants to be able to read concise advice in simple terms and in a visual based format.
- A simple questionnaire to find out if she is eligible for a divorce.
- A step by step guide on the steps to take for a divorce.

Motivations

- Costs - 3/5
- Security - 3/5
- Comprehensiveness - 3/5
- Ease of use - 5/5
- Informative - 5/5

Kelly

Demographics

- Age: 42
- Occupation: Secretary
- Location: Derby

Frustrations

- Worried about her abusive husband.
- Has very little knowledge of the divorce process.
- Other applications don't have the personal feel that a real solicitor does and wants to feel supported through the process.

Desires

- Wants to privately obtain legal support and advice.
- Wants a guide on the process of divorce.
- Wants to have high security so that her husband doesn't find out.
- Wants to feel supported through the process.

Motivations

- Costs - 3/5
- Security - 5/5
- Comprehensiveness - 3/5
- Ease of use - 3/5
- Informative - 5/5

4. User stories:

- **Personas** / **Assumption** / **Outcomes**

As a **young individual with not enough money for face-to-face legal consultation**, I want to **be able to find legal advice in a personal, concise, and affordable format** so that **I can properly make an informed decision on whether I want to go through the process of divorce.**

As a **curious student with an interest in the law**, I want to **look for specialised and practical information regarding divorce** so that **I can aid my legal studies.**

As an **international citizen in the UK seeking marriage counsel**, I want to **find simple legal advice with legal terms explained in plain english** so that **I can overcome the language barrier which prevents me obtaining proper guidance of the law.**

As a **spouse of an abusive husband**, I want to **privately obtain legal advice** so that **I can obtain legal guidance on the process of divorce without my husband finding out.**

As an **extremely dyslexic married woman**, I want to **be able to read concise advice in as simple and few words as possible in a visual based format** so that **I can understand the legal process without the struggle of my dyslexia limiting my comprehension.**

As an individual who does not know where to search for legal counsel regarding my divorce, I want to be connected to a specialised professional lawyer so that I know I am making the best legal decisions

DEFINE:

5. Comprehensive Table of Identified Issues:

#	Issue Identified	Affected Personas
U1	General lack of legal comprehension from the general public	Toby
U2	LASPO stripped away financial security	Toby
U3	Unaware they can self represent	Mariam
U4	Not confident enough to self represent	Mariam
U5	Feel unsupported and isolated in the divorce process	Kelly
U6	No current app which provides comprehensive support	Toby
U7	Many apps feel untrustworthy and insecure	Kelly
U8	Apps did not replicate the personal feel of a hired solicitor	Kelly
U9	Apps presented biased information	Robert
U10	Many apps require hidden costs to complete the process	Robert
U11	Applications are sometimes just hidden advertisements for a solicitor	Robert
U12	Legal information is typically too complicated, or overly simplified	Mariam
U13	Free services tend to be extremely limited in the amount of people they can provide support to	Toby
L1	Confusion between “petitioner” and “respondent”	
L2	Details of divorce grounds is not common knowledge and hard to research	
L3	Adultery grounds requires specific details as evidence	
L4	Grounds of unreasonable behaviour are vague and broad	
L5	Requirement of assigning blame in divorce increases complications	
L6	Desertion grounds require specific details as evidence	
L7	Filing under separation requires a waiting period of two years.	
L8	Individuals are either unable to, or unwilling to read legal documents	
L9	General lack of education resulting in ignorance of the divorce process	
L10	Financial arrangements are extremely hard to complete online without the specialised help of a solicitor.	
L11	LASPO cut prospect of legal aid for divorce cases	

IDEATE:

6. Feature brainstorm:

Feature	Requirements	Pros	Cons
<u>Chat-bot</u> A chat-bot interacts with clients through social media (WhatsApp, Twitter and Instagram). Which provides answers for all divorce-related matters.	This solution requires NLP which is underpinned by machine learning, to enable the bot to handle different flows of conversations without being explicitly programmed.	1-Motivated by consumer behaviour Loss-aversion theory. 2-Addresses the empathy gap. 3-Easy to use and accessible. 4-Doesn't require the installation of new software. 5-Always improving and learning.	1-Can not predict the behaviour upon seeing new data, outside of the training set. 2-Higher risk of errors than using predefined rules. 3-Transparency issues: how did the algorithm reach this conclusion?
<u>Connect to Clinic</u> An application that connects a client to a law student from legal clinics across the UK, students get volunteering experience certification for time spent on the app. Additionally, possible collaboration with universities to credit students for participating.	Need to establish a huge user base (law students), before this solution becomes feasible.	1-Saves clients time. 2-Easy access to legal clinics. 2-Long term communication as opposed to one-off consultation in legal clinics. 3-Nudges law students to participate through incentives.	1-Dependent on the availability of the student. 2-Students might misguide clients due to lack of experience.

<p><u>AI legal Advisor</u></p> <p>Use NLP to extract factors from unstructured data(cases) and store them in linked lists. Use some classifying algorithm to determine which ground this case fits into. Then use some sort of evaluation matrix to assess the accuracy of the classification.</p> <p>The AI advisor gathers factors from the user through predefined dialogue flows. The output reports the confidence of the algorithm through words(certain /uncertain), This allows the user to decide if he/she needs to do more research. If the confidence rate is low, it could go through human evaluation(volunteer lawyers or legal clinics).</p>	<p>Need to carefully define the evaluation criteria for both the algorithms and human evaluation.</p>	<p>1-Gives the user information on the reliability of answers. 2-Performs better within time 3-Minimises the need for volunteer lawyers.</p>	<p>1-Needs a large client base in order to perform reasonably</p>
<p><u>Divorce assistance app/website</u></p> <p>Through a Q&A style, this solution helps the user to know if he/she is eligible for a divorce, guides the user through a step by step process and facilitates the user with all the required and relevant information in order to best represent themselves. Additionally, this app connects the user with a legal clinic if the app fails to assess the user.</p>	<p>A predefined set of rules of all common divorce cases.</p> <p>Feasible data storage and retrieval method.</p>	<p>1-Designed around choice-architecture principles 2-Accessible and easy to use. 3-Deterministic and transparent decision making.</p>	<p>1-Computational time</p> <p>2-Lawyers have to encode deduction rules.</p> <p>3-Gets outdated if laws change, has to be manually updated.</p>

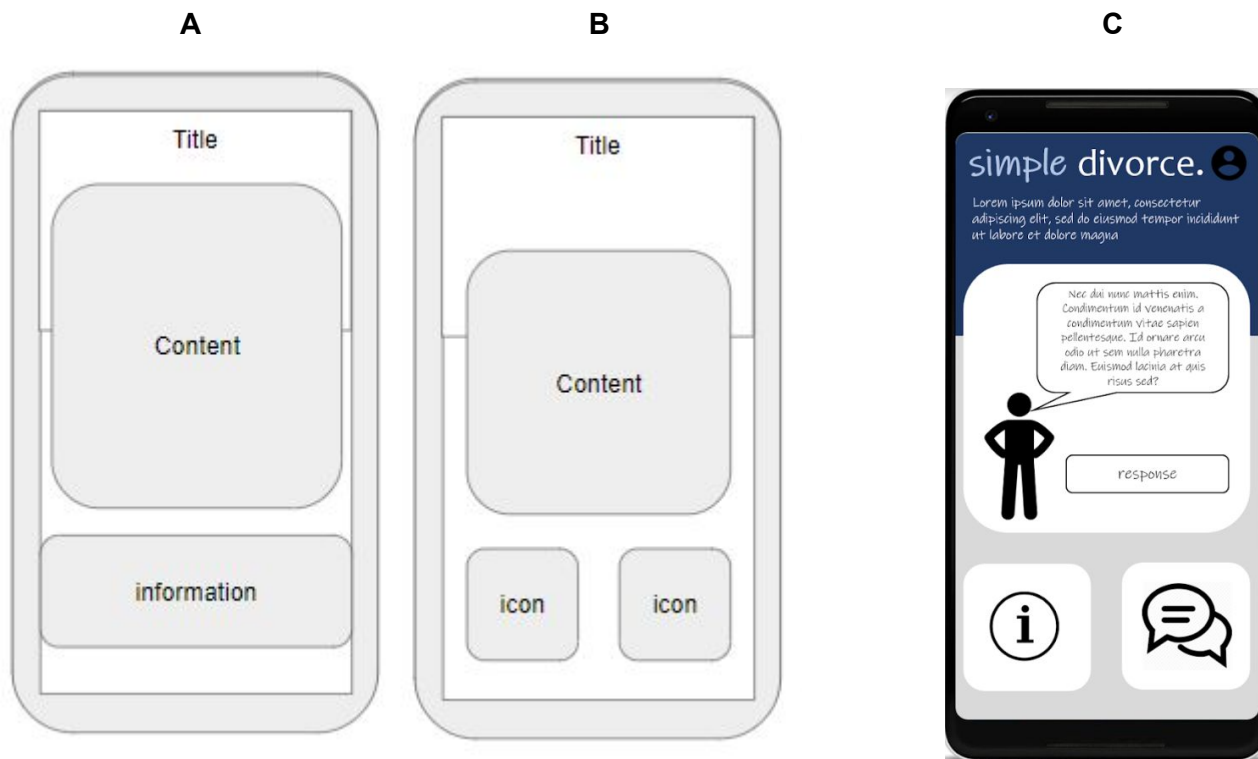
7. Traceability Matrix:

Feature	Requirement Satisfied	Issue addressed
Legal Dictionary	R1, R8	U1,U6,U9,U12,L1,L2,L3,L4,L5,L6,L8
Legal term popup	R1,R8	U1,U6,U12,L1,L2,L3,L4,L5,L6,L8
Links to further reading	R1,R8	U1,U3,U6,U9,U11,U12,L1,L2,L3,L4,L5,L6
User questionnaire	R2,R8	U6,L1,L2,L3,L4,L5,L6
Personalised advice	R1,R2,R3,R4,R8	U1,U2,U3,U5,U6,U8,U11,L7
Divorce GPS	R1,R3,R4,R8	U1,U6,U8,U11,L9

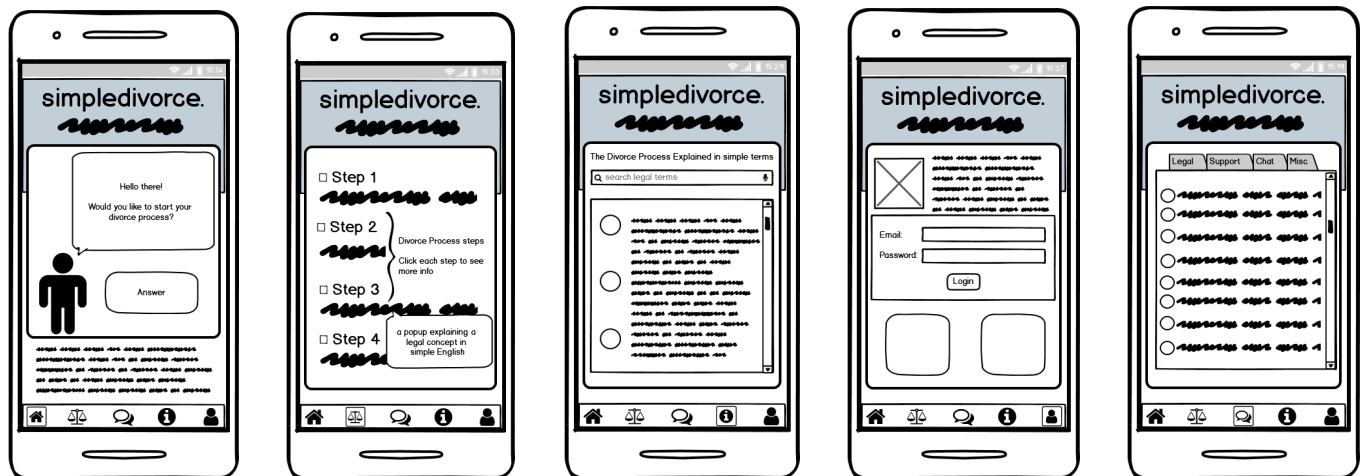
Step by step guidance	R1,R2,R3,R4,R8	U1,U2,U3,U4,U6,U8,U11,L8,L9
Auto-form completion	R3,R4,R8	U1,U2,U6,U11,U13,L8,L9
User discussion forum	R2,R5,R8	U3,U4,U5,U6,U9,U13
Account creation	R3,R5,R6,R7,R8	U7
Data security	R6,R7	U7
Payment	R8	U6,U10,U13,L10,L11
Affordability	R9,R10	U6,U10,L10,L11
UX Design Principles	R11,R12	U6

PROTOTYPE:

8. Initial prototypes



9. Balsamiq prototypes



10. DivorceGPS procedure

1. Must be married for more than a year.
2. Marriage must have "irretrievably broken down" because of: (you can select one or more of the following)
 - a. Adultery, to prove this you will need to provide:
 - i. Dates and location of where it occurred
 - ii. Name of the person the adultery was committed with (if known, this will only be needed if your spouse does not consent to a divorce)
 - b. Unreasonable behaviour
 - i. Examples of what the behaviour included and dates of its occurrence (examples of this may be verbal or physical abuse, financial mismanagement, unreasonable sexual demands, social isolation etc.)
 - c. Desertion for at least two years
 - i. Dates when the spouse deserted the family house
 - d. Separation for two years
 - i. The spouse must consent to divorce

- ii. Dates of separation
 - e. Separation for five years
 - i. No need for consent
 - ii. Dates of separation
- 3. If at least one of the five categories is satisfied then the initial divorce application can be filled out and sent to the court with a fee of 550 pounds along with the marriage certificate (preferably the original certificate, if not a certified copy is satisfactory).
- 4. The court will serve the divorce papers to your spouse. Your spouse must then file an Acknowledgement of Service Form to the Court. If your spouse does not do this, a bailiff will serve the papers. At this point, the divorce can proceed.
- 5. You must then file an application for a Decree Nisi (interim divorce) alongside a supporting statement.
- 6. A judge will confirm that the application satisfies the legal threshold and will issue a date for the Decree Nisi. On that date, the Decree Nisi will be pronounced.
- 7. At this point, you must wait at least 6 weeks and 1 day before applying for a decree absolute (the final divorce). If you do not apply for a decree absolute within 12 weeks from the 6-week minimum, your spouse can apply for a decree absolute instead.
- 8. A hearing will take place.
- 9. If everything runs smoothly, the decree absolute will be pronounced and you will be officially divorced. If there are ancillary matters that have to be finalised (like children, finances or any other disputes), the decree absolute will be delayed until those matters are settled. Thus, you should use the waiting time to settle any issues.

TEST:

11. Cognitive Walkthrough

- Kelly opens the app
- Is greeted with questionnaire determining if she is eligible
- Kelly has been separated for six months, and confirms that she has been the victim of abuse. This makes her eligible under unreasonable behaviour.
- Kelly is then prompted to make an account
- Kelly makes an account and is directed to the Divorce GPS screen where she can read a summary of every step of the process.
- Kelly goes into step 1 of the divorce process which is to provide evidence of abuse. She does not know what counts as evidence so clicks a button for more help.
- She is redirected to the Education section on filing evidence of abuse which simply outlines what is required.
- Kelly now understands what she must file, and returns to the divorceGPS to complete the step.
- After submitting the evidence, Kelly is extremely nervous and feeling overwhelmed with emotion. She does not have anyone to share her worries with and wishes to connect with people going through a similar situation.
- Kelly goes to the discussion forum and begins to read through anonymous posts made by other people who have gone through exactly the same experience as her.
- Satisfied she has begun her process, she reads more about the next few steps and closes the app for today.
- Her account is logged out upon exiting the app and her progress is saved for a later date.