



UProperty Inc.

Requirement Specification & Stakeholder Analysis Document

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|----------------|-------------------------------|
| Project | UProperty's new portal |
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TASK 1

Requirement Specification

1. Identifying Project Requirements

BUSINESS CONTEXT

Understanding the client's business context and project initiatives is the initial step towards interpreting requirements more thoroughly and accurately.

Company background

UProperty, Inc., an Australian real estate startup, envisions transforming the industry and Victoria's property landscape using cutting-edge AI technology and innovative strategies. The company is dedicated to revolutionising the established practices of buying, selling, and managing properties.

Project objectives

To achieve this vision, UProperty's leadership has initiated this project to develop an advanced online real estate portal to offer users exceptional services and challenge industry norms.

Intended product values

The intended product will address the fundamental needs and satisfy advanced demands related to efficiency, transparency, and user engagement throughout the buying process. Additionally, it will be designed to support the customer base's rapid growth and evolving needs.

1.1. Functional Requirements

| ID | Functional Requirement |
|-----|---|
| F-1 | <p>The portal shall secure new user registration</p> <p style="padding-left: 40px;">F-1.1. the portal shall verify the user's email.</p> <p style="padding-left: 40px;">F-1.2. the portal shall encrypt the user password.</p> |
| F-2 | <p>Property owners shall be able to list their properties where:</p> <p style="padding-left: 40px;">F-2.1. the listing shall have detailed text descriptions.</p> <p style="padding-left: 40px;">F-2.2. the listing shall include relevant and appropriate images.</p> <p style="padding-left: 40px;">F-2.3. the listing shall connect to location maps to show the approximate location.</p> |
| F-3 | <p>Users shall be able to search for properties on the portal</p> <p style="padding-left: 40px;">F-3.1. users shall be able to search based on location and postcode.</p> <p style="padding-left: 40px;">F-3.2. users shall be able to search based on price range.</p> <p style="padding-left: 40px;">F-3.3. users shall be able to search based on the type of property.</p> <p style="padding-left: 40px;">F-3.4. users shall be able to search based on the property amenities.</p> |

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| F-4 | <p>Users shall be able to schedule property viewings on the portal</p> <p>F-4.1. users shall be able to schedule property inspections and appointments directly with real estate agents and property owners.</p> <p>F-4.2. users shall be able to save appointments to their external calendar systems.</p> |
| F-5 | <p>Users shall be able to receive personalised property alerts</p> <p>F-5.1. users shall be able to set specific search criteria.</p> <p>F-5.2. users shall be able to save specific search criteria.</p> <p>F-5.3. users shall be able to receive notifications when matching results become available.</p> |
| F-6 | <p>The portal shall deploy AI algorithms to deliver personalised property recommendations</p> <p>F-6.1. algorithms shall analyse user preferences.</p> <p>F-6.2. algorithms shall analyse user search history on the portal.</p> <p>F-6.3. algorithms shall analyse user behaviour patterns.</p> |
| F-7 | <p>The system shall deploy Natural Language Processing (NLP) to enhance search results and personalised recommendations</p> <p>F-7.1. NLP shall analyse property text descriptions.</p> <p>F-7.2. NLP shall extract key features, sentiments and attributes from these text descriptions.</p> |
| F-8 | <p>The portal should deploy image recognition technology to enhance visual representation and aid users in making well-informed decisions.</p> <p>F-8.1. the portal shall identify key features in property images.</p> <p>F-8.2. the portal shall emphasise these features.</p> |
| F-9 | <p>The portal shall deploy AI-powered algorithms to automate property valuation processes</p> <p>F-9.1. the automation shall give instant property estimates to users.</p> |
| F-10 | <p>The portal should employ predictive analytics models to predict market trends</p> <p>F-10.1. the models should be able to analyse property prices.</p> <p>F-10.2. the models should give insights into property demand and supply dynamics to users.</p> |
| F-11 | <p>The portal should deploy Virtual Reality (VR) technology to offer immersive 3D property tours to users.</p> |
| F-12 | <p>The portal should deploy AI algorithms to provide personalised financial analysis tools for users</p> <p>F-12.1. the portal should estimate mortgage affordability.</p> <p>F-12.2. the portal should calculate property taxes.</p> <p>F-12.3. The portal should estimate the Return on Investment (ROI) for buyers.</p> |

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| F-13 | The portal shall have an in-platform messaging feature that allows users to message directly with property owners and agents. |
| F-14 | <p>Users shall be able to review properties and agents</p> <p>F-14.1. the portal shall implement a feedback system.</p> <p>F-14.2. the portal shall implement a rating system.</p> <p>F-14.3. users shall be able to see past reviews.</p> |
| F-15 | <p>Users should be able to compare properties</p> <p>F-15.1. the portal should incorporate robust comparison tools.</p> <p>F-15.2. users shall be able to compare based on criteria such as price, size, location, and amenities of the properties.</p> |
| F-16 | <p>The portal should help users navigate the property buying processes</p> <p>F-16.1. the portal should offer property buying and financing how-to guides to users</p> <p>F-16.2. the portal should maintain a curated list of recommended conveyancers, solicitors, and mortgage brokers for reference.</p> |
| F-17 | <p>The portal shall integrate with the backend systems of realestate.com.au.</p> <p><u>Assumption:</u> Since UProperty has reinforced its strategic partnership with REA Group, there is a high chance that the information about how to build interconnection between the backend systems and how the REA Group's backend systems look will be shared. Thus, this is a functional requirement.</p> |
| F-18 | <p>The portal shall streamline the financial and mortgage lending processes</p> <p>F-18.1. the portal shall integrate with financial institutions and mortgage lenders.</p> <p>F-18.2. the portal shall grant users direct access to partnering institutions' pre-approval processes, mortgage calculators, and financing options.</p> <p><u>Assumption:</u> While integrating with the external domain systems, the portal will extract information from those systems and show the information directly to users. Thus, this is a functional requirement.</p> |
| F-19 | <p>The portal shall integrate with third-party services</p> <p>F-19.1. the portal shall integrate with transportation maps, school directories, and amenities databases.</p> <p>F-19.2. the integration shall offer users properties' contextual information.</p> <p><u>Assumption:</u> While integrating with the external domain systems, the portal will retrieve information from the external parties' databases to show the contextual information to the users. Thus, this is a functional requirement.</p> |

1.2. Non-Functional Requirements

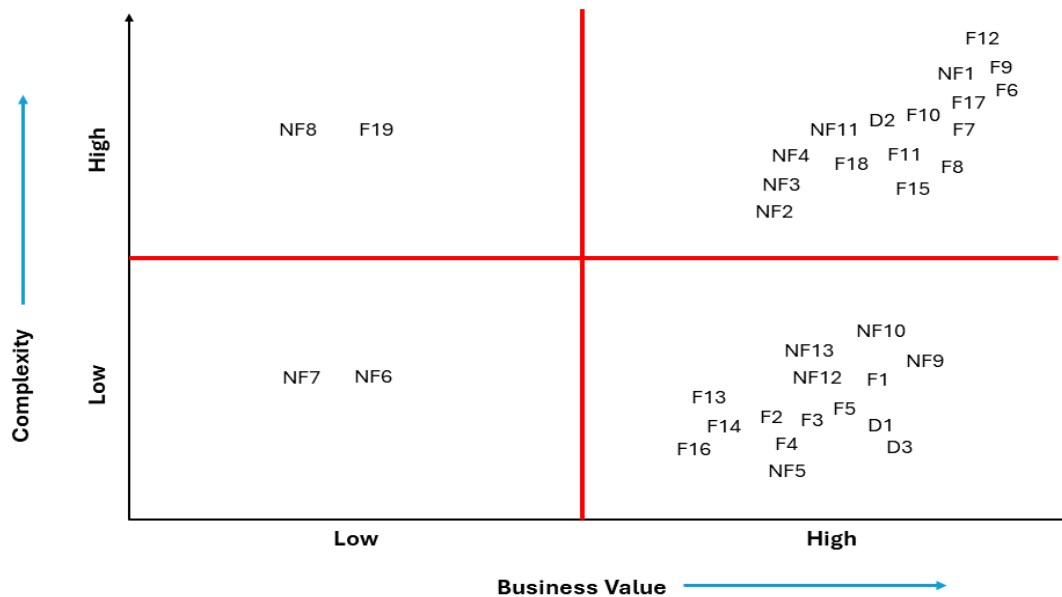
| ID | Non-Functional Requirement |
|-------|---|
| NF-1 | The system shall use Google Cloud to accommodate a surge in user demand. |
| NF-2 | The portal should offer seamless user interaction with streamlined processes and optimised workflows for property searches, listings, and transactions. |
| NF-3 | The portal should offer a responsive experience to users NF-3.1. the portal should offer swift response times NF-3.2. the portal should offer smooth navigation across various devices and platforms. |
| NF-4 | The system should have a modular architecture to integrate new features and functionalities flexibly. |
| NF-5 | The portal should have the corporate green colour theme across all its pages and elements. |
| NF-6 | Users should be able to sign up easily using their Google or Yahoo accounts. <u>Assumption:</u> The portal shall have email and mobile number sign-up options on its site. Registration by linking with Google or Yahoo accounts is optional and only exists to enhance convenience and usability for users. Hence, this requirement is non-functional. |
| NF-7 | The portal should integrate with social media platforms including Facebook, Twitter and Instagram. <u>Assumption:</u> Linking to social media platforms is a common marketing practice on many websites to increase convenience for users when sharing information. However, the integration can be considered as optional. Hence, this requirement is non-functional. |
| NF-8 | The portal should support multiple languages. <u>Assumption:</u> The portal uses Australian English as the main language. While having multiple languages on the portal is beneficial to users' usability and engagement, it is optional as we assume that users already have other translation tools integrated in their browsers. Hence, this is a non-functional requirement. |
| NF-9 | All web pages shall be transferred using SSL to enhance the portal's security. |
| NF-10 | The portal shall utilise the J2EE enterprise framework for technology development. |
| NF-11 | The system shall implement stringent measures to address cybersecurity risks effectively. <u>Assumption:</u> Stringent cybersecurity practices apply to the system as a whole; hence they are non-functional. |

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| NF-12 | The portal should have a simple, intuitive interface and user experience. |
| NF-13 | The portal should have a visually appealing and consistent interface. |

1.3. Domain Requirements

| ID | Domain Requirement |
|-----|---|
| D-1 | The portal shall adhere to Victorian real estate laws regarding property disclosures and contractual agreements. |
| D-2 | The portal shall connect to Consumer Affairs Victoria's latest property sales data through their API. <u>Assumption:</u> Since property sales data is public information and is a common practice to access the latest data in the real estate industry, this requirement is under domain. |
| D-3 | The portal shall adhere to all legal obligations concerning data privacy in Australia. |

2. Prioritisation Matrix



2.1. Functional Requirements

| ID | Prioritisation Matrix | Justification |
|-----|---|--|
| F-1 | Low complexity - High business value | <p>With the user registration feature as a base, email verification and password encryption are common in modern security practices without many technical challenges. Furthermore, with consultation from the head of the Australian Cyber Security Center, UProperty can simply implement this requirement.</p> <p>By implementing this, UProperty will enhance its data security regarding user registration, thereby increasing customer trust and confidence in the portal.</p> |
| F-2 | Low complexity - High business value | <p>Listing properties is a fundamental function of real estate portals, with established practices from market leaders. With basic listing criteria, this requirement also has minimal technical hurdles.</p> <p>This requirement provides UProperty with essential business operations standardised listing procedures and well-defined listing attributes.</p> |
| F-3 | Low complexity - High business value | <p>Searching for properties with specific criteria is a fundamental feature with less technical sophistication. Moreover, partnering with REA Group could help UProperty learn from the market leader about this requirement.</p> |

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| | | <p>This requirement equips UProperty with core business functionality that fulfills users' basic needs.</p> |
| F-4 | Low complexity - High business value | <p>Appointment scheduling and integration into calendar systems are standard industry practices, which represent low technical complexity. Moreover, assuming that appointments will be marked on calendars on external platforms, this requirement will simply involve handling the interface.</p> <p>This requirement will enhance customer experience and efficiency in managing appointments, increasing UProperty's user preference and growth.</p> |
| F-5 | Low complexity - High business value | <p>This functionality can be easily implemented using setting panels. Moreover, saving search criteria only involves storing users' criteria in a database and displaying an interface 'Save' button. Matching user preferences in the database with the listings and sending notifications would also be manageable with mechanisms such as email and push notifications.</p> <p>This requirement will enhance user engagement on the portal, potentially driving sales and retention as users see that they can get real-time personalized alerts without re-entering their specific search every single time.</p> |
| F-6 | High complexity - High business value | <p>Although having a team of experts and a senior AI consultant, this requirement will still be challenging for UProperty due to the rapidly evolving nature of AI technology and the necessary resources required to get AI to learn existing data and deliver accurate recommendations. Moreover, the complexity is compounded by choosing AI algorithms and integrating them with current systems.</p> <p>However, should this requirement be implemented, UProperty could gain a strong competitive advantage, and distinguish itself in the market.</p> |

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| F-7 | High complexity - High business value | <p>NLP is an emerging and fast-changing technology with high complexity to implement. Thus, it demands specialised expertise and considerable time to train NLP models on the data for precise search results.</p> <p>This requirement would grant UProperty a distinguishing capability in the market. and reinforce the company's strategic vision.</p> |
| F-8 | High complexity - High business value | <p>Utilizing image recognition technology entails complex components, including a large database for images, advanced algorithms, and different computational resources. Moreover, property owners may need to provide high-resolution image quality, which could be burdensome.</p> <p>This requirement will provide a significant differentiation advantage for UProperty.</p> |
| F-9 | High complexity - High business value | <p>As mentioned, the rapid evolution of AI and extensive resources and data needed for training can make this requirement complex and challenging. Additionally, significant resources may be required to merge data from different databases and integrate with existing workflows to achieve desired outcomes and processes.</p> <p>Automating processes will enable UProperty to streamline its operations, improve resource allocation and scalability and facilitate users in their decision-making process.</p> |
| F-10 | High complexity - High business value | <p>Deploying predictive analytics models demands considerable expertise and resources, involving the integration of data systems, real-time updates, and continuous analysis and evaluation.</p> <p>This will empower UProperty to stay ahead of market trends, providing updated industry insights for users making investment decisions. This will then lead to customer satisfaction and sales conversion.</p> |

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| F-11 | High complexity - High business value | <p>This requirement requires expertise for integrating Virtual Reality technology into the user interface. Moreover, high-quality images and visually appealing videos may be necessary as material for creating 3D models, which takes time and effort.</p> <p>Executing this requirement will enhance property visualisation, increase convenience for users, encourage greater user engagement and gain a marketing competitive advantage.</p> |
| F-12 | High complexity - High business value | <p>As mentioned, the fast-changing pace of AI poses challenges to implementing this requirement. Moreover, personal finance and investments involve handling sensitive information, which requires a sophisticated level of data security.</p> <p>This requirement will increase user satisfaction and engagement on the portal and help UProperty gain a competitive advantage.</p> |
| F-13 | Low complexity - High business value | <p>Messaging functionalities are widely used for any portal, making it relatively simple to implement.</p> <p>This requirement will facilitate user communication and experience, potentially retaining users and converting sales.</p> |
| F-14 | Low complexity - High business value | <p>Incorporating a feedback and review system is a common practice in the market; therefore, the requirement should be simple to implement and integrate with the current interface and data.</p> <p>Implementing this will promote transparency and user trust, which will increase user loyalty and trust for UProperty.</p> |
| F-15 | High complexity - High business value | <p>This requirement involves extensive data extraction for comparison and analysis, requiring seamless integration across IT infrastructure components and optimisation for performance. Additionally, refining the tools to enhance comparison accuracy will take a huge amount of time.</p> <p>This tool will enable users to make well-informed decisions and enhance engagement with the portal, which establishes a new competitive advantage for UProperty.</p> |

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| F-16 | Low complexity - High business value | <p>This requirement requires minimal technical specialisation and thus is considered low complexity. Moreover, assuming UProperty already has a source of recommended service providers, this involves solely updating the list based on specific criteria.</p> <p>This will improve user experience by providing reliable information regarding their property buying and financing journey and save them the effort of searching on their own. Consequently, it will increase the efficiency of the property buying process, which will help the company gain a competitive advantage.</p> |
| F-17 | High complexity - High business value | <p>This requirement is challenging as it demands extensive time and effort to ensure alignment with data consistency, integrity, and privacy business logic.</p> <p>However, the advantages are significant, as UProperty can gain new insights and enhance efficiency by leveraging REA's well-established business features and processes, which could be UProperty's competitive advantage in the market.</p> |
| F-18 | High complexity - High business value | <p>This requirement entails harmonising operations with various stakeholders, each possessing different technical requirements and compatibility. Moreover, challenges may include complex data exchange and ensuring financial data privacy among financial institutions and the portal.</p> <p>However, this requirement will benefit UProperty by streamlining its home-buying process and meeting user needs, which ultimately boosts user engagement and creates a competitive advantage.</p> |
| F-19 | High complexity - Low business value | <p>This requirement indicates the high complexity of integrating multiple services from various parties onto the portal. It includes complex technical considerations, such as compatibility and synchronisation between various systems.</p> <p>This requirement may not be significantly value-added as users may prefer using their familiar and trusted tools like Google Maps to explore the location's neighbourhood.</p> |

2.2. Non-Functional Requirements

| ID | Prioritisation Matrix | Justification |
|------|--|--|
| NF-1 | High complexity - High business value | <p>Assuming that UProperty is now transitioning the existing on-premise infrastructure to cloud computing is challenging. This requires a whole architecture redesign, complex data migration, and integration with legacy systems.</p> <p>However, this requirement provides significant long-term scalability to accommodate evolving user needs and facilitate business expansion.</p> |
| NF-2 | High complexity - High business value | <p>This requirement entails effective coordination between different resources, such as front-end and back-end development and testing, which can be complex and take plenty of time. Additionally, process optimisation includes deep analysis, technology involvement and ongoing assessment.</p> <p>Implementing this will elevate user engagement with the portal, which could lead to good word-of-mouth for UProperty, a reduction in bounce rate, and a strengthening of its market position.</p> |
| NF-3 | High complexity - High business value | <p>Optimising the coding to provide efficient time requires proficient knowledge and extensive time for testing. Moreover, accommodating different screen sizes and compatibility needs will make this complex.</p> <p>However, this requirement will enhance the portal's responsiveness, thereby increasing user engagement and reducing its bounce rate. Additionally, it will create a consistent user experience and improve interaction on the portal.</p> |
| NF-4 | High complexity - High business value | <p>Assuming that the legacy systems possess significant interdependence, this transition requires handling complex integration, testing, and validation.</p> <p>Executing this requirement will provide considerable room for innovation, swift adaptability to user trends and scalability.</p> |
| NF-5 | Low complexity - High business value | <p>By determining a clear color scheme, the implementation becomes simple, consisting of widespread application of the chosen color code.</p> <p>This requirement guarantees uniformity and consistency in brand identity, which is valuable for a startup.</p> |

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| NF-6 | Low complexity - Low business value | <p>This requirement requires minimal effort and resources since Google and Yahoo registration methods are widely used. The process will occur on external platforms. Thus, UProperty's portal simply needs to integrate the sign-in button into its interface.</p> <p>While this would offer users a convenient signup option, it may not provide significant added value since the portal already has its own signup method.</p> |
| NF-7 | Low complexity - Low business value | <p>Social media integration has become a common strategy in today's digital landscape to promote user engagement across platforms. Numerous established use cases already exist, which would facilitate the integration process for UProperty.</p> <p>Such integration holds the potential to extend the portal's reach significantly and foster user engagement.</p> |
| NF-8 | High complexity - Low business value | <p>Assuming UProperty will synchronise with other translation tools, this includes complex, custom development work for integration and regular maintenance to ensure accurate translations.</p> <p>While it enhances accessibility and inclusivity, its business value may not be significant, as users could already have preferred translation tools installed on their devices.</p> |
| NF-9 | Low complexity - High business value | <p>SSL is a reliable and established protocol. With the current expert team, UProperty will likely execute this easily.</p> <p>This will offer the company robust data security, essential to safeguard brand reputation and user trust.</p> |
| NF-10 | Low complexity - High business value | <p>J2EE is an established and widely accepted framework across many business cases. Additionally, with the current expertise, this requirement has become less complex for UProperty.</p> <p>This will provide the company with a flexible IT infrastructure and robust security features.</p> |

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| NF-11 | High complexity - High business value | <p>Despite the support from the Australian Cyber Security Centre, deploying cybersecurity measures is challenging because tailoring them to UProperty's unique risk landscape involves significant resources and time for risk assessment and analysis.</p> <p>This requirement will offer the company robust data security to safeguard its brand reputation and user trust.</p> |
| NF-12 | Low complexity - High business value | <p>Considering the available resources, including budget, time, talented developers and a senior UI designer, this requirement is considered low complexity.</p> <p>This will elevate the user experience, satisfaction, and engagement of the portal, which will enhance UProperty's prospects for sales success.</p> |
| NF-13 | Low complexity - High business value | <p>With a defined palette, UProperty demonstrates a clear direction of the brand image; therefore, achieving this requirement involves low complexity.</p> <p>Being visually appealing will leave users with a positive and consistent impression of the brand image, increasing brand awareness.</p> |

2.3. Domain Requirements

| ID | Prioritisation Matrix | Justification |
|-----------|--|---|
| D-1 | Low complexity - High business value | <p>This requirement is straightforward since the laws are well-established with explicit guidelines. Additionally, the partnership with REA Group could facilitate the adoption of the practices as the Group is a pioneer in the market and likely to have compliance with Victorian laws.</p> <p>This requirement will assist UProperty in achieving legal compliance, strengthening customer trust, and enhancing its market reputation.</p> |
| D-2 | High complexity - High business value | <p>Despite Consumer Affairs Australia's assistance and reliable API protocols, this requirement will require significant efforts in data mapping, meeting system requirements, and testing integration.</p> <p>This will help UProperty stay current with the market, promptly respond to market changes, and provide users with updated information.</p> |
| D-3 | Low complexity - High business value | <p>This requirement is low-complex since regulations are well-established and UProperty will receive expert guidance from the Australian Cyber Security Center.</p> <p>This will help UProperty meet legal standards, thereby increasing customer trust and its reputation.</p> |

3. Requirement Prioritization

Considering the Intended Product Values as above in part 1, with the aim of bringing the best value to stakeholders within an approved budget of \$5 million and schedule (31st Dec 2026), as well as a commitment to project quality of an advanced property portal, the following ten requirements are prioritised. The sequence of requirements is not important as we assume all 10 requirements are equally important.

| No. | ID | Requirement | Justification |
|-----|------|---|--|
| 1 | F-2 | <p>Property owners shall be able to list their properties where:</p> <p>F-2.1. the listing shall have detailed text descriptions,</p> <p>F-2.2. the listing shall include relevant and appropriate images,</p> <p>F-2.3. the listing shall connect to location maps to show approximate location.</p> | <p>In order to enhance the user experience in searching property, this practical function will efficiently and visually provide details of properties that the owners want to promote to buyers. Listing properties is also a core function in real estate portals; hence, it is necessary to include F-2.</p> |
| 2 | F-3 | <p>Users shall be able to search for properties on the portal</p> <p>F-3.1. users shall be able to search based on location and postcode,</p> <p>F-3.2. users shall be able to search based on price range,</p> <p>F-3.3. users shall be able to search based on the type of property,</p> <p>F-3.4. users shall be able to search based on the property amenities.</p> | <p>In terms of efficiency and user engagement during the searching properties step, this core function provides buyers with detailed information about properties, such as price range and location, that will allow them to easily make property comparisons later.</p> |
| 3 | F-13 | <p>The portal shall have an in-platform messaging feature that allows users to message directly property owners and agents</p> | <p>Since clear communication between users and real estate agents is a vital characteristic of the portal, this messaging feature will efficiently allow smooth communication throughout the selling and buying processes, avoiding misunderstandings and enhancing the accuracy and transparency of information among users.</p> |
| 4 | F-6 | <p>The portal shall deploy AI algorithms to deliver personalised property recommendations</p> <p>F-6.1. algorithms shall analyse user preferences,</p> <p>F-6.2. algorithms shall analyse user search history on the portal,</p> <p>F-6.3. algorithms shall analyse user behaviour patterns.</p> | <p>This advanced function will enhance user engagement when the advanced analysis algorithms enable unique and relevant recommendations to users and significantly maximise the search journey, reducing search time. Furthermore, UProperty Inc. - has the capacity to implement this sophisticated function, as it has a dynamic team of 20 staff members and a robust focus on AI technology.</p> |

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| 5 | F-17 | The portal shall integrate with the backend systems of realestate.com.au | The data exchange between UProperty Inc. and the realestate.com.au portal - is an essential function to strengthen the cooperation and integration with its strategy partnership – the REA Group, which in returns will be a long-term benefit to the company, especially at calling for investments that allow the company to improve its online housing portal and enhance customer services. |
| 6 | NF-1 | The system shall use Google Cloud to accommodate a surge in user demand. | The portal will integrate a large database from multiple sources and run in back-end advanced AI algorithms and software to optimize the property selling and buying process, thus high scalability and security are important requirements. Moreover, the Cloud platform is the information technology trend in the market. Therefore, this function is not just to enable the future expansion and growth of the company but also to deliver good project quality to stakeholders. |
| 7 | NF-3 | The portal should offer a responsive experience to users NF-3.1. the portal should offer swift response times, and NF-3.2. the portal should offer smooth navigation across various devices and platforms | Quicker response times and connected devices will give the portal a competitive advantage and enhance its efficiency and user engagement. |
| 8 | NF-5 | The portal should have the corporate green colour theme across all its pages and elements. | As a start-up company, UProperty Inc. is a new company in the real estate market. Hence, the consistency of brand colour used throughout the portal will enhance the company's recognition in the market. This function can be easily delivered to stakeholders within the scheduled time and budget. |

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| 9 | D-1 | The portal shall adhere to Victorian real estate laws regarding property disclosures and contractual agreements. | Real estate buying process should comply with local law enforcement to enhance the security and transparency of the process, building trust with users. |
| 10 | D-3 | The portal shall adhere to all legal obligations concerning data privacy in Australia. | <p>Since the portal will interact with multiple stakeholders' data - users, partnering financial institutions, etc. - it is essential that UProperty implement cybersecurity practices to protect these data. Furthermore, the company also needs to protect its AI algorithms' intellectual property assets (in multiple functional requirements) to maintain a competitive advantage.</p> <p>Due to the limited project budget and time, data privacy compliance will be the first step in the long-term cybersecurity practices that UProperty can implement in the future.</p> |

TASK 2

Stakeholder Analysis

4. Stakeholders and their Roles

| No. | Stakeholder Name | Role | Inclusion on the Project Steering Committee |
|-----|------------------|-----------------------|--|
| 1 | Alex Johnson | CEO of UProperty Inc. | <u>Yes.</u> Considering Alex's leadership role at UProperty, his responsibility to oversee the development of the portal, and his rapport with external stakeholders e.g., Zhang Wei, the CEO of PwC Australia, he should be considered for the PSC. |
| 2 | Elizabeth Taylor | COO of UProperty Inc. | <u>No.</u> While Elizabeth has high authority at UProperty, her role is less directly related to the development of the portal as she is likely to focus more on the company's operation. Hence, she should not be considered for the PSC to oversee the project. |
| 3 | Natalie Spencer | CTO of UProperty Inc. | <u>Yes.</u> Natalie was entrusted with leading and managing the project, hence she should be part of the PSC. |
| 4 | Zhang Wei | CEO of PwC Australia | <u>Yes.</u> Zhang is the CEO of PwC Australia, the consultancy firm that advises UProperty on cloud solutions and the underlying IT infrastructure for the portal. Therefore, Zhang's role is important in the project as he has both decision-making power as well as representing the consultancy. Hence, he should be part of the PSC. |
| 5 | PwC Consultant | PwC Australia | <u>No.</u> Assuming that PwC will assign their personnel to be the cloud and IT subject matter experts, who will be involved in the project. This consultant will not be in the PSC as he/she has lower decision-making power than Zhang. |

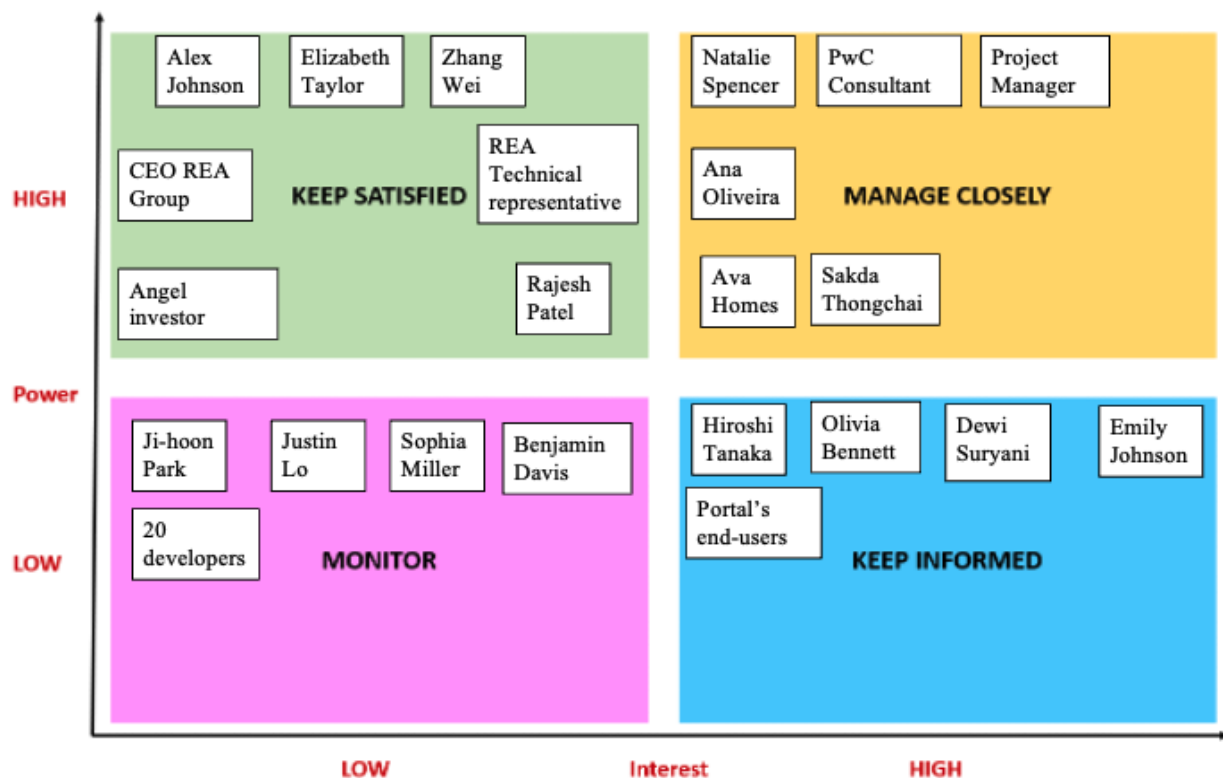
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| 6 | Hiroshi Tanaka | Senior marketing officer at realestate.com.au | <u>No.</u> Hiroshi advises on user experiences for the portal and is unlikely to hold a major role throughout the later phases of the project lifecycle, hence he is not in the PSC. |
| 7 | CEO REA Group | REA Group | <u>No.</u> As realestate.com.au is a strategic partner with UProperty and is likely to have invested in the company, the start-up can frequently update the project progression with a REA Group personnel, though this person will unlikely stay in the PSC. |
| 8 | REA Technical representative | Realestate.com.au/ REA Group | <u>Yes.</u> A technical representative from realestate.com.au will join the PSC to help integrate the backend systems of the portal with realestate.com.au and oversee the project, as REA Group is a strategic partner of UProperty. Ideally, this role is the Chief Technology Officer with technical knowledge and decision-making power. |
| 9 | Rajesh Patel | Head of Australian Security Centre | <u>No</u> While Rajesh has an important role in consulting cyber security practices, he is unlikely to directly manage the project throughout its life cycle, but rather acts as an advisor/subject matter expert in cybersecurity. Hence he should not be considered for the PSC. |
| 10 | Ji-hoon Park | IT specialist from Consumer Affairs Victoria | <u>No.</u> Ji-hoon holds a minor role since he mainly advises Natalie on connecting the portal with API from Consumer Affairs Victoria, hence he should not be in the PSC. |
| 11 | Project Manager | Project Manager at Quick Solutions | <u>Yes.</u> As the PM employed by Quick Solutions, the contractor of Project UProperty is responsible for managing and leading the project, and the PM should be included in the PSC. |

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| 12 | Ava Homes | Property expert at UProperty Inc. | <u>No.</u> While Ava can give input during the development of the project, her suggestions still need to be formally approved by the PM. Hence, she is likely part of the project team and not the PSC since she holds low decision-making power. |
| 13 | Olivia Bennett | Senior UI Designer at UProperty Inc. | <u>No.</u> Olivia is likely part of the project team and not the PSC, especially considering she only commits for the next two months. |
| 14 | Sakda Thongchai | Senior AI consultant | <u>No.</u> Similar to Ava, Sakda is likely in the project team instead of PSC. |
| 15 | Dewi Suryani | IT architect | <u>No.</u> Similar to Ava and Sakda, Dewi is likely part of the project team to deliver the work and not in the PSC. |
| 16 | Emily Johnson | Development Lead at Quick Solutions | <u>Yes.</u> Emily will lead the portal's implementation and should be in the PSC. |
| 17 | Benjamin Davis | Support engineer at UProperty Inc. | <u>No.</u> Benjamin, with low decision-making power, is likely part of the project team that delivers the project. Hence, he will not be part of the PSC. |
| 18 | Sophia Miller | Support engineer at UProperty Inc. | <u>No.</u> Similar to Benjamin, Sophia is likely part of the project team that delivers the project. Hence, she will not be part of the PSC. |
| 19 | Justin Lo | IT support manager of UProperty Inc | <u>No.</u> While Justin will oversee and monitor the testing and support for the new IT solution, his role will become more important in the later phases of the project. Hence, he is more likely to be part of the project team and not the PSC. |

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| 20 | Ana Oliveira | Quick Solutions' Chief Requirements Analyst | <u>No.</u> Ana will mainly be involved with drafting the requirements during the planning and elicitation stage. However, she is unlikely to monitor the project throughout its lifecycle. Hence, she should not be considered part of the PSC. |
| 21 | Portal's end-users | Invited property owners, property buyers or renters, and real estate agents | <u>No.</u> End-users are also important stakeholders in the project as they give insights into user experiences and interfaces, helping UProperty design a customer-centric product (the portal). However, end-users are unlikely to be involved in the PSC to lead the project. |
| 22 | 20 developers | Developers from Quick Solutions | <u>No.</u> The developers are likely part of the project team that delivers the project and hold low decision-making power. Hence, they will not be part of the PSC. |
| 23 | Angel investors of UProperty Inc. | | <u>No.</u> The angel investors are unlikely to be part of the PSC as they are more interested in the overall performance of UProperty as their investment. |

5. Power Interest Grid

5.1. Power Interest Grid Representation



5.2 Rationale for Assigning the stakeholders to the grid

| No. | Stakeholder Name | Role | Power Interest Quadrant / Justification |
|-----|------------------|-----------------------|---|
| 1 | Alex Johnson | CEO of UProperty Inc. | <u>Keep Satisfied</u> CEO has the ultimate decision-making authority within an organization. His support is crucial to securing resources and removing potential roadblocks to the project. Although highly influential, the CEO may not be actively involved in day-to-day details of the initial phases because he is busy with other tasks. |
| 2 | Elizabeth Taylor | COO of UProperty Inc. | <u>Keep Satisfied</u> The COO has a significant influence on the organisation. Her alignment and support are critical for project success. Similar to the CEO, the COO's focus may be on broader strategic goals rather than the details of initial project planning. |

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| 3 | Natalie Spencer | CTO of UProperty Inc. | <p><u>Manage Closely</u></p> <p>The CTO has a significant role in making decisions regarding technology choices and implementations, making her influence on the project's direction significant.</p> <p>She also plays a key role in defining requirements and ensuring the project aligns with the organization's technological goals.</p> |
| 4 | Zhang Wei | CEO of PwC Australia | <p><u>Keep Satisfied</u></p> <p>As the CEO of the consulting firm, he has significant authority over resource allocation and strategic direction.</p> <p>Given his focus on the consulting firm's broader operations, the CEO may have limited involvement in the day-to-day details of the initial project stage.</p> |
| 5 | PwC Consultant | PwC Australia | <p><u>Manage Closely</u></p> <p>The external consultant directly influences the project's execution, particularly in implementing the cloud solution and establishing the IT infrastructure.</p> <p>The external consultant will work closely with the project team to ensure the chosen solutions meet requirements and align with broader goals in the initial stage.</p> |
| 6 | Hiroshi Tanaka | Senior marketing officer at realestate.com.au | <p><u>Keep Informed</u></p> <p>The senior marketing officer's insights into user experience and market trends significantly influence.</p> <p>While his expertise is invaluable, his primary focus is on evaluating user experiences with major property portals in the market rather than the nitty-gritty details of the initial planning stages.</p> |

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| 7 | CEO REA Group | REA Group | <p><u>Keep Satisfied</u></p> <p>The REA Group CEO, a strategic partner of UProperty with a strong reputation in the property market, influences resource allocation for the realestate.com.au integration project during the planning stage.</p> <p>However, due to their focus on REA Group's broader operations, the CEO may not be involved in the project's daily details.</p> |
| 8 | REA Technical representative | Realestate.com.au/ REA Group | <p><u>Keep Satisfied</u></p> <p>The REA technical representative possesses in-depth knowledge of their systems and integration capabilities. Their expertise will influence the project's technical feasibility and design choices.</p> <p>While their knowledge is crucial during the planning and requirements stage, their primary focus may shift towards implementation details during the development phases.</p> |
| 9 | Rajesh Patel | Head of Australian Security Centre | <p><u>Keep Satisfied</u></p> <p>The security consultant's recommendations for security protocols are highly influential and shaped the project's security architecture and compliance requirements during initial planning.</p> <p>His primary involvement will likely focus on the stage of executing for detailed security requirements and design advice.</p> |
| 10 | Ji-hoon Park | IT specialist from Consumer Affairs Victoria | <p><u>Monitor</u></p> <p>The IT specialist's role is primarily advisory, focused on the API integration process for property sales data. His influence on the project and decision-making is likely limited.</p> <p>Due to his specific focus on data integration, their overall involvement in the project's initial stage may be minimal.</p> |
| 11 | Project Manager | Project Manager at Quick Solutions | <p><u>Manage Closely</u></p> <p>The project manager has decision-making authority over resource allocation, task scheduling, and steering the project's direction.</p> |

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| | | | The project manager is involved in all project phases to ensure constant communication with stakeholders and meeting the project's goals. |
| 12 | Ava Homes | Property expert at UProperty Inc. | <p><u>Manage Closely</u></p> <p>The property expert holds significant influence due to their deep understanding of the industry and will directly shape project requirements.</p> <p>She will collaborate closely with the project team to ensure the portal aligns with real-world user needs and industry practices in the initial stages.</p> |
| 13 | Olivia Bennett | Senior UI designer at UProperty Inc. | <p><u>Keep Informed</u></p> <p>The senior UI designer's primary focus lies in the portal's visual and interaction design aspects and has limited two-month involvement in the project. Her influence on the project scope may have had a low influence in the initial stage.</p> <p>Despite a shorter time frame, keeping her informed will facilitate a smooth transition into later stages of the project.</p> |
| 14 | Sakda Thongchai | AI consultant | <p><u>Manage Closely</u></p> <p>The AI consultant's recommendations will significantly shape the project's AI capabilities as his influence extends to the technical feasibility of AI-powered features.</p> <p>Given the important role of AI in the project, his close involvement in the initial stage ensures that the AI component is aligned with the project goals.</p> |
| 15 | Dewi Suryani | IT architect | <p><u>Keep Informed</u></p> <p>The IT architect's influence on the project direction during the initial stages may be minimal. Their primary decision-making power will likely increase during development to ensure the project's technical integrity.</p> <p>Keeping her informed of planning details ensures a smooth transition to later stages of the project.</p> |

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| 16 | Emily Johnson | Development Lead at Quick Solutions | <p><u>Keep Informed</u></p> <p>The development lead's influence on project planning and requirements may be less significant during the initial stages.</p> <p>Keeping her informed of the initial stage will facilitate effective resource planning and a smooth handover into later stages of the project.</p> |
| 17 | Benjamin Davis | Support engineer at UProperty Inc. | <p><u>Monitor</u></p> <p>The support engineer's primary role focuses on post-launch maintenance and troubleshooting.</p> <p>Their involvement in the details of the initial stage may be limited.</p> |
| 18 | Sophia Miller | Support engineer at UProperty Inc. | <p><u>Monitor</u></p> <p>The support engineer's primary role focuses on post-launch maintenance and troubleshooting.</p> <p>Their involvement in the details of the initial stage may be limited.</p> |
| 19 | Justin Lo | IT support manager of UProperty Inc | <p><u>Monitor</u></p> <p>The IT support manager's focus is on post-launch support and maintenance.</p> <p>Monitoring them will ensure they can handle support issues once the project goes live.</p> |
| 20 | Ana Oliveira | Quick Solutions' Chief Requirements Analyst | <p><u>Manage Closely</u></p> <p>The Chief Requirements Analyst rephrases stakeholder needs into actionable requirements.</p> <p>Her close involvement in the planning and requirements elicitation stage is crucial for success.</p> |
| 21 | Portal's end-users | Invited property owners, property buyers or renters, and real estate agents | <p><u>Keep Informed</u></p> <p>The end users provide feedback on the project, and their direct influence on decision-making during the initial stages is limited.</p> <p>Keeping end-users informed about the project's progress ensures their engagement.</p> |

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| 22 | 20 developers | Developers from Quick Solutions | <p><u>Monitor</u></p> <p>Developers primarily focus on the development phase, having less influence on decision-making during the initial stages.</p> <p>Their initial involvement may be less intensive, as they will primarily receive instructions from the development lead.</p> |
| 23 | Angel investor | UProperty Inc. investor | <p><u>Keep Satisfied</u></p> <p>As a significant shareholder, the angel investor significantly influences UProperty's leadership and can indirectly impact the project's direction, resources, and overall trajectory in the planning stage.</p> <p>The angel investor is likely to have limited direct involvement, as their focus is on establishing leadership management to handle project details.</p> |

6. Stakeholder Movement in Power – Interest

Engagement methods and the Power-Interest grid can change over time due to these two reasons:

1. Changes in requirements of the project

As the project progresses, its priorities and requirements may change. Factors such as a technological breakthrough, a shift in market conditions, or a change in regulations can lead to previously less influential stakeholders suddenly holding more power if their expertise becomes crucial to a revised project goal. For instance, a stakeholder with specialised knowledge or subject matter experts might be granted more decision-making power and move from the "Keep Informed" to the "Manage Closely" category. Another possibility is that an existing stakeholder withdraws from the project, and another stakeholder takes up the role. In the case study, a new stakeholder might be a Virtual Reality (VR) development company or consultant if the VR tours are seriously considered. Their power and interest would be high in VR, requiring close collaboration during the planning and implementation.

2. Changes in the project life cycle

During different phases of the project, the importance of each stakeholder will change depending on the tasks of each phase and their duties on other projects. For example, in the planning and requirement elicitation stage, the role of developers is not yet to perform any tasks, so we keep them in the Monitor quadrant. However, we will work closely with them when the project comes to the Development stage. In this case, Emily Johnson and 20 talented developers will run the coding for the portal according to the required functions. Moreover, some stakeholders will be in charge of different projects at a certain time so that they may be only included in one or two phases of the project, such as the case of Olivia Bennet- a senior User Interface (UI) designer, she will shift focus to other projects after two months.