Prototype and Database Design and Development



Course: Higher Diploma in Computing (full-time)

Module: Internet Applications Development

Teacher: Evelyn Keown Task: Web Design CA

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Student number: L00157217

Project title: Property Hunters - Estate Agents

Property Hunters is a family run business established in November of 1994 in Letterkenny by the company's Director Yohane Neumann.

Summary of the organization

The company consists of a group of Property Hunters experts ready to offer high-quality customer service and assistance for all aspects of a property sale. Having over 26 years of experience in the real estate industry, the staff will support the clients throughout the selling or buying process from start to finish regardless of the property value. The Hunters will ensure that customers are always 100% satisfied by communicating with them every step of the way and taking all feedback on board. Currently, Property Hunters are expanding its services to cover the entire County Donegal territory, aiming to attract people to the Wild Atlantic Way coast and increase revenue. The team of specialists deals with a wide diversity of property types and provides a fast, efficient and customer-based sale service to vendors and buyers. The company credibility has grown mainly through referrals from existing customers, resulting in a solid database of residential, commercial and site/land properties. If you are looking forward to selling or buying a property, contacting our office is highly recommended. Get in touch with one of the members of our team to discuss. You can count on us to find the property that suits you the best!

Target Market

Property Hunters aims to support anyone who would like to buy or sell a property in Co. Donegal regardles of its price. This includes first times buyers, families, those wishing to downsize/upsize, those looking for a holiday home destination or buyers seeking properties for rental. We also work with commercial places, which are available for people looking for a premise for their businesses as well as sites, which is targeting those with the intention to buy a plot of land to build their own home or development.

It is expected that clients will use the site as a first step in searching for potential properties. The target is mostly people familiar with the use of the internet, although the site is built based on simplicity and we believe that anyone with a minimum knowledge of technology will be able to navigate through it and search for a property by themselves. Either way, the team of experts Hunters will be always ready to give any assistance its clients might need.

Objectives

- To expand the audience once limited by Letterkenny to cover the whole County Donegal
- To make people aware of Property Hunters as a business and the services it provides
- To improve marketing quality by advertising online and reducing its costs
- To draw the attention of more people by increasing queries by email, telephone and also in person
- To get customer information by making them share their feedback online
- To book more views
- To increase revenue

<u>Content</u> 1. <u>Home</u>

The home page focus on drawing visitors' attention and provide the relevant information as quickly and easily as possible.

The home page will have a pleasant and simple layout with a minimalist design allowing users to familiarise themselves quickly. The content area will consist of a welcome message (a search box might also be included under it).

2. Properties

2.1 All properties

Accessed through the navbar, the all properties page will share a similar layout to the properties displayed on the home page. 3 properties will be displayed and based on a white background, encouraging users to click individually on each of them.

Each panel will contain a property image, address, price, type, number of bathrooms, bedrooms (when applicable) and "more details" button.

2.2 Residential/Commercial/Sites

The user can also browse by category. The properties are divided by residential, commercial and sites. When choosing one of the options, the user will be redirected to the selected property category page.

2.3 "More details" page

Once the user clicks on the "more details" button, they will be direct to the chosen property page. This page will consist of the property details as picture, price, property detailed description and, possibly, a map of its address.

3. Services

This page will share the types of services Property Hunters provides. It offers a variety of properties on sale in Co. Donegal. The team of Property Hunters experts will assist customers throughout the selling or buying process, facilitating all the administrative and legal work associated with the purchase or sale of land/property to ensure a comfortable and professional experience for clients. With an improved online presence, it aims to provide all the information visitors need to find properties currently available on the market.

4. Testimonials

This page will display testimonials received by people, mostly previous clients. Whenever sale is completed, one of the Hunters will encourage the client to share their feedback about their experience on this page. Feedback can also be given by anyone visiting the website. When clicking on the "Testimonials" button placed in the navbar, the client can view previous comments and submit their feedback by filling up a short form. Any comment received will get a "pending" status until the site administrator checks it and approves it.

5. About Us

It will count with a short description of the company background, its values and pictures of the staff, with theirs names and roles. Property Hunters was found in

Letterkenny in 1994 by the company's Director Yohane Neumann. With over 26 years of experience in the Real Estate industry, the company is now ready to move forward and overcome a geographical limitation: cover Co. Donegal territory. The team is made of Property Hunters experts willing to provide outstanding customer service, as their satisfaction is the company priority.

6. Contact us

It provides the user all the information they need to get in touch with the company, so they can choose what option suits them better. Contact can be made by phone, email, message through one of social media platforms (Facebook, LinkedIn and Instagram), or by popping up in the office in person.

7. Dynamic Elements

These pages will not be shared with the clients, but only with the one responsible to manage the website.

On the footer of every page, there will be an "Admin" link that will give the staff access to the website administration options, which are: manage properties, manage comments and manage vendors.

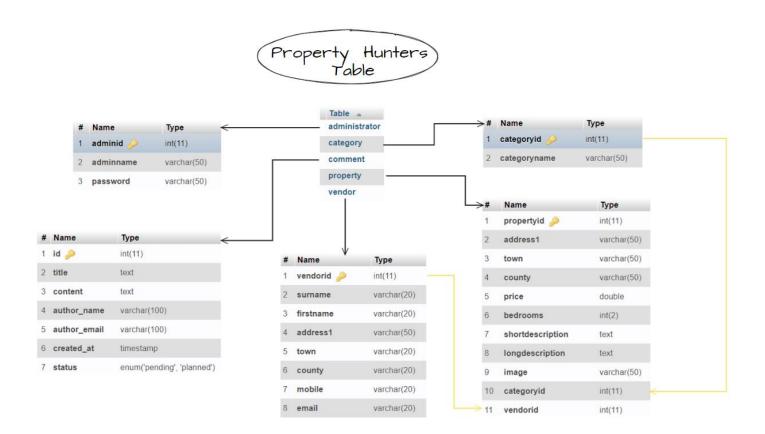
On the Manage Properties page, the admin can add a new property, edit an existing one or delete. To add a new property, a new page is displayed with the information to be entered via a form by the user. Before deleting, a popup alert will come up to confirm whether the user wants to delete a property.

On the Manage Comments page, the administrator can aprrove or delete a comment. The same alert will be displayed to confirm that the comment is going to be deleted.

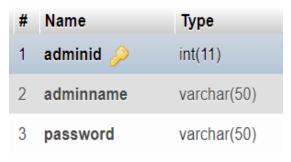
The Manage vendors page will allow the admin to insert a new vendor, edit their details or delete a vendor (upon its confirmation).

8. Data

The Property Hunters table stores the data related to the company and is composed of an administrator, category, comment, property and vendor.



8.1 Admin table



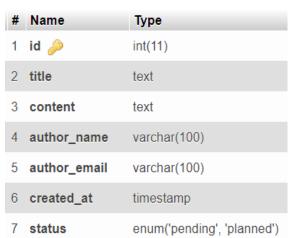
The Admin table is responsible to keep the admin details that will be used by the staff to login into the admin section on the website. It consists of a unique admin id, name and password.

8.2 <u>Category table</u>



The category table allows the user to display properties by a specific category (residential, commercial and sites).

8.3 Comment table



The comments table will hold the feedback shared by customers on the testimonials page. Each comment will be assigned a unique id and only comments with the status "planned" will be displayed on the website. Administrators will approve or delete comments as required.

8.4 Property table

#	Name	Type
1	propertyid 🔑	int(11)
2	address1	varchar(50)
3	town	varchar(50)
4	county	varchar(50)
5	price	double
6	bedrooms	int(2)
7	shortdescription	text
8	longdescription	text
9	image	varchar(50)
10	categoryid	int(11)
11	vendorid	int(11)

It will be managed by administrators and will contain all the property details that will be displayed on the website in the property listing and the "more details" button. A short description will be used in the property listing and a long description when the "more details" button is clicked. Images stores the pictures that will be displayed in the property listing and categoryid will provide a link to the Category table, while vendorid connects to the Vendor table.

8.5 Vendor table

#	Name	Type
1	vendorid 🔑	int(11)
2	surname	varchar(20)
3	firstname	varchar(20)
4	address1	varchar(50)
5	town	varchar(20)
6	county	varchar(20)
7	mobile	varchar(20)
8	email	varchar(20)

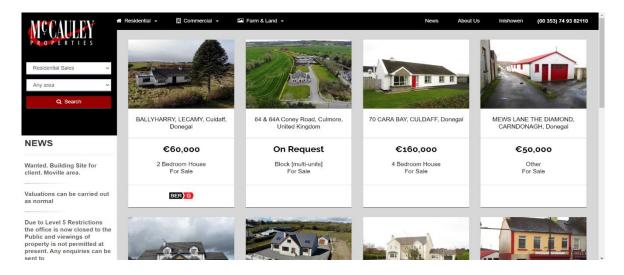
The vendors' table stores all details about the vendors, including their names, surnames, address, town, county, mobile number, email address and a unique vendorid, which will provide a link to the Property table.

Design Research

1. Competitors and Unique Selling Point (USP)

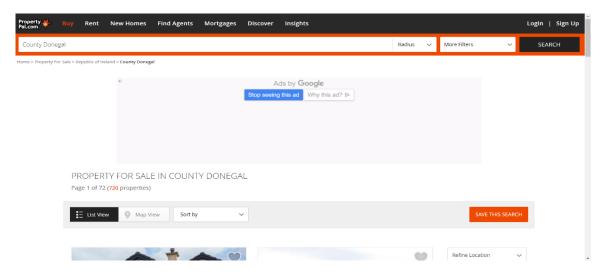
1.1 Mc Gayley Properties

It shares a quite nice property listing, although, it has a geographical limitation, once it does not cover all Co. Donegal territory as Property Hunters.



1.2 PropertyPal

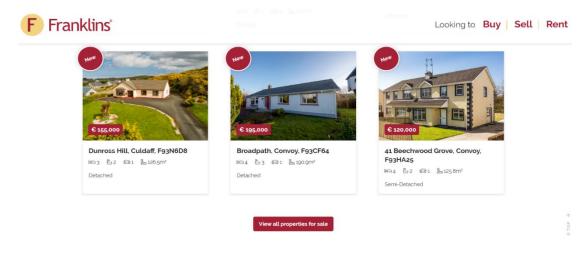
Even though it stores a good variety of properties on its web page, it is unpleasant having to deal with random advertisements over the pages. Property Hunters aims to keep its website layout as simple as possible to provide an easy and pleasant search platform to its clients.



2. Inpiration

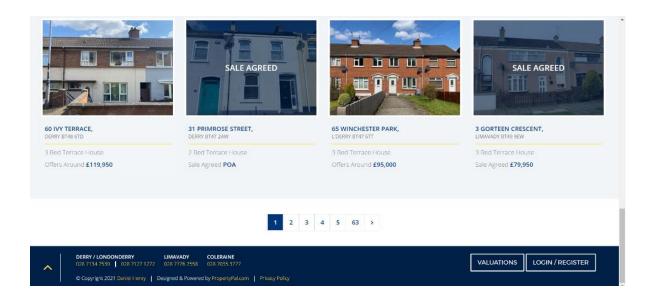
2.1 Franklins

Franklins has a simple and straight forward design layout and the palette colour choice makes the website looks clean and pleasant to browse. Also, the use of white space and the contrast between the page colours and page elements were complimentary to the design.



2.2 Daniel Henry - Estate Agents

Modern, simple and easy to navigate. Properties are well displayed in the property listing.



<u>Design</u>

1. Layout

The layout of Property Hunters' website will be built using HTML, CSS, PHP and JavaScript. Its design aims to provide the clients a website easy and pleasant to look at, removing unnecessary ornamentation. One main HTML template will be used for each page on the website. The header and footer will remain fixed on each page while the content section changes.

CSS will be used to style the website. The same layout and colour theme will be repeated throughout all the pages, as well as the Font type.

JavaScript will be used to display a dropdown menu in the property link for the user to select either all properties, residential, commercial or sites.

When hovering over the header menu, the font colour will change. The same will happen when clicking on any link from the menu bar in order to let the user know their current location on the website.

2. C.R.A.P principles

Following the C.R.A.P principles concepts (Contrast, Repetition, Alignment and Proximity), the contrast is demonstrated by having all elements in dark colours against a light colour or white background that instantly makes darker tones in fonts, images and graphic elements stand out, creating a bit of dynamism on the screen. Additionally, the use of bold text is used as a way to emphasize this principle.

Repetition is present in the fixed header, navbar and footer on every page within the website giving the user a sense of understanding of where they are and how they can navigate the website from any given location. Graphic elements remain consistent throughout the website, which gives the user a sense of comfortable navigation, organization, unity and consistency.

All the elements in the page are aligned, creating a visual flow and visually connects the screen, as a result: a clean, clear and sophisticated look and feel website.

Furthermore, proximity on the screen demonstrates whether items are or not related. That's why all the elements in Property Hunters' page are grouped like property listing, navbar, logo, footer, etc.

3. Colour Palette

Property Hunters website was created based on 5 main colours. The black, white and grey colours are ubiquitous in modern minimalistic design which this website leans towards.

According to Pantone Color of the Year 2021, "PANTONE 17-5104 Ultimate Gray +PANTONE 13-0647 Illuminating, are two independent colors that highlight how different elements come together to support one another. Practical and rock solid but at the same time warming and optimistic, the union of PANTONE 17-5104 Ultimate Gray + PANTONE 13-0647 Illuminating is one of strength and positivity. It is a story of color that encapsulates deeper feelings of thoughtfulness with the promise of something sunny and friendly."



Acessibility

As mobile phones and tablet devices become the most popular devices to search for information, Property Hunters website counts with a responsive design, which means that even if clients use a mobile or tablet, both large and small screens, will present a high standard performance. This increases the amount of time that visitors spend on the website. It can also help improve rankings in search engines.

Working with CSS to develop the website, it will be used em and percentages for font size and ensures that all forms contain information regarding fields that must be filled.

"Breadcrumbs" will also be used so the visitors can keep track of the path they have done to get on their current page.

Table/forms

Tables are used to display the testimonials, properties and vendors in the back end of the website. The information for these tables will be taken from the database and displayed using PHP and HTML. Users will be able to add/update elements of these tables using the forms provided on the relevant pages. Customers will share feedbacks using the form provided on the testimonials page. These forms will be created using HTML and the data entered transferred to the database using PHP.

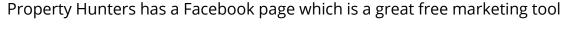
Search Engine Optimisation

To improve the website's index in the search engine results and increase the site's visits, alt tags and keywords will be added to the meta tags throughout the pages of the website.

Social Media

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for businesses. It allows the company to reach a wide audience and be identified

by sharing links, images, and posts on a customizable page to give a better sense

of a business's personality and character.

Instagram is another platform that is used as it provides multiple forms of engagement, with the right strategy can keep the audience engaged and drives traffic directly to our website.

Also, Property Hunters' presence on LinkedIn builds credibility, creates a meaningful network, and gathers expertise from established experts in the Real Estate

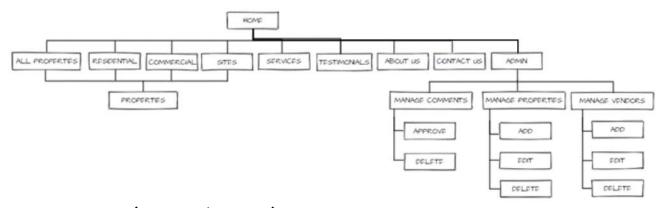
industry. More than 30 million companies use LinkedIn for business, not just because it's the preeminent social network for recruiting and hiring top talent.

Icons of these three social media platforms will be displayed in the footer of every page within the website to encourage site visitors to interact with the company's social media by clicking on them.

Structure diagram

This diagram/sitemap is used to plan the website's purpose, navigation and its overall organisation. It makes easier to understand what all the pages in the website require and how they will be linked together.

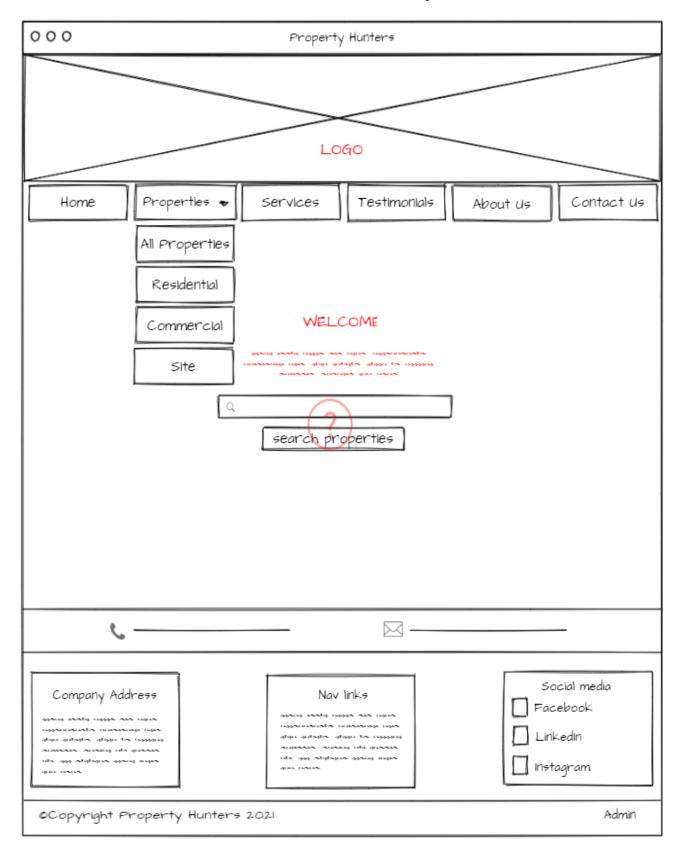
The structure chart below is simply a copy of the one available at Blackboard, apart from the "Services" page.



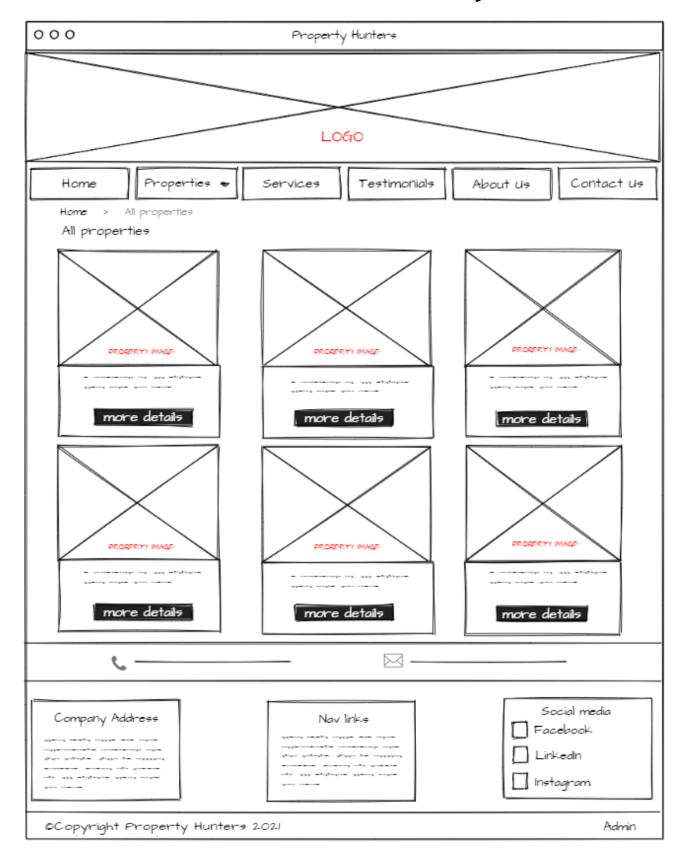
Prototype/Storyboard

The following pages show the conceptual design for the Property Hunters website created using Mockflow. It helps visualizing where the objects will be placed, how users will know what page they are on and how users will navigate from one section of the site to another.

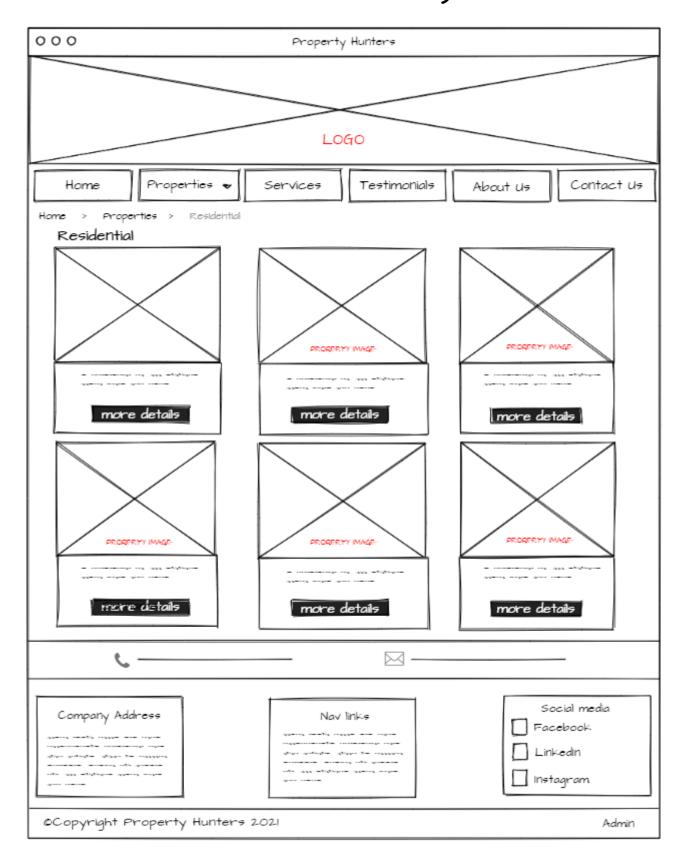
1. Wireframe of the Home page



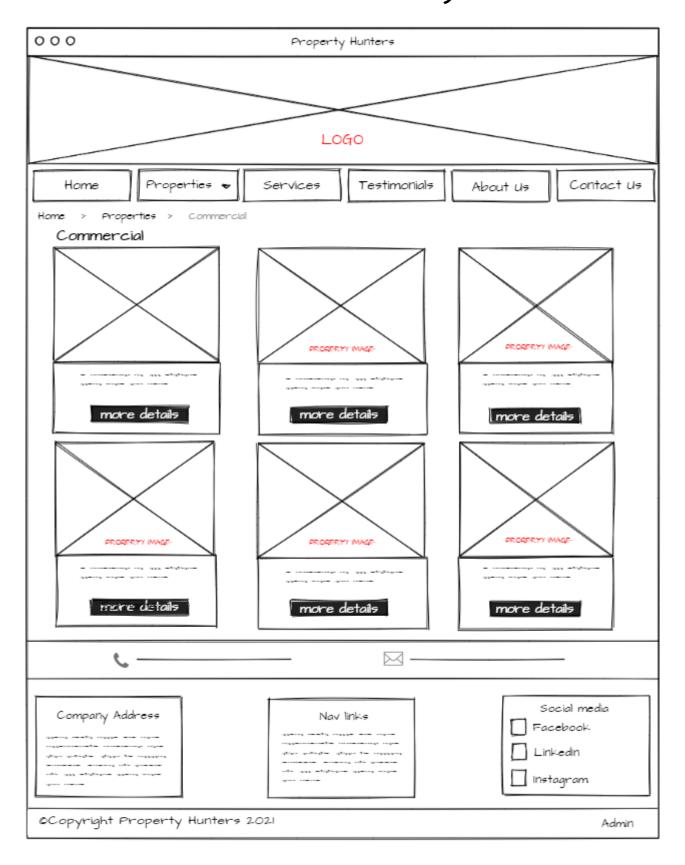
2. Wireframe of All properties page



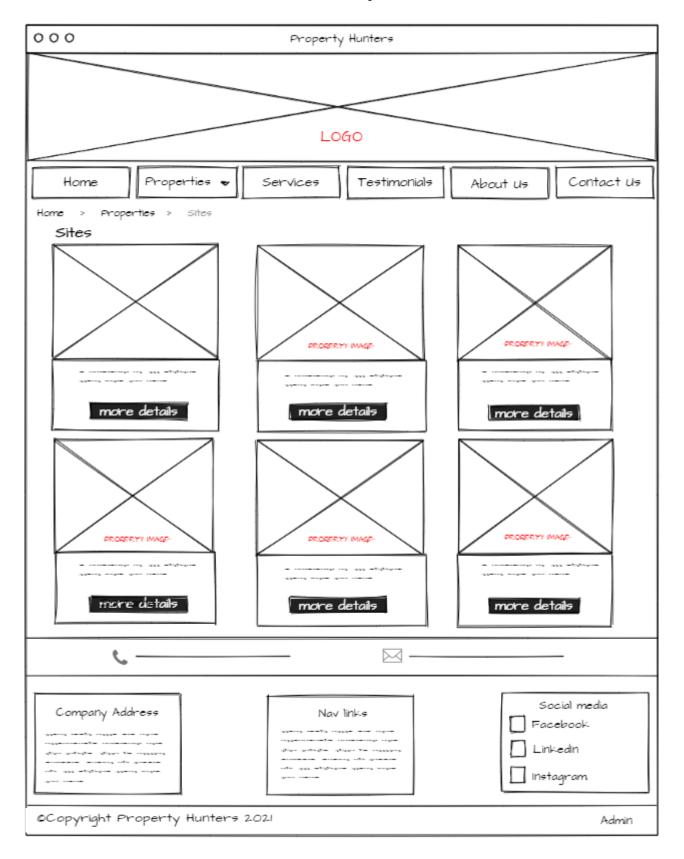
3. Wireframe of Residential page



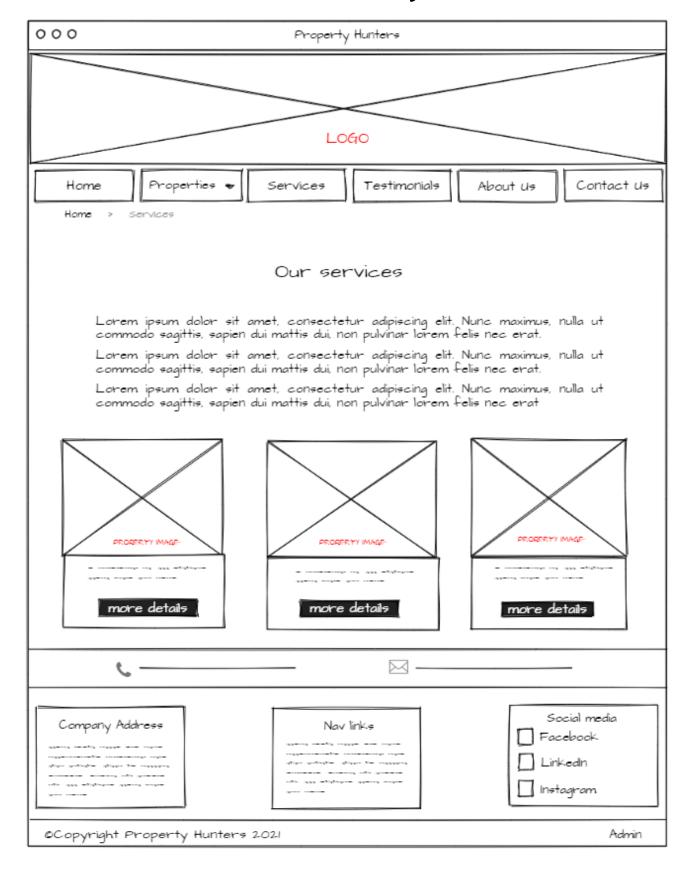
4. Wireframe of Commercial page



5. Wireframe of Sites page



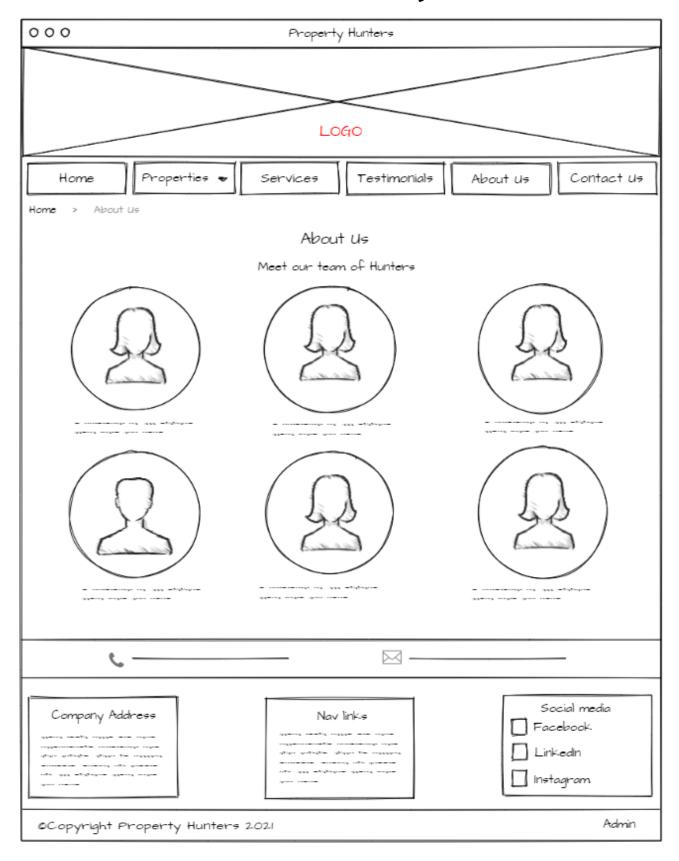
6. Wireframe of Services page



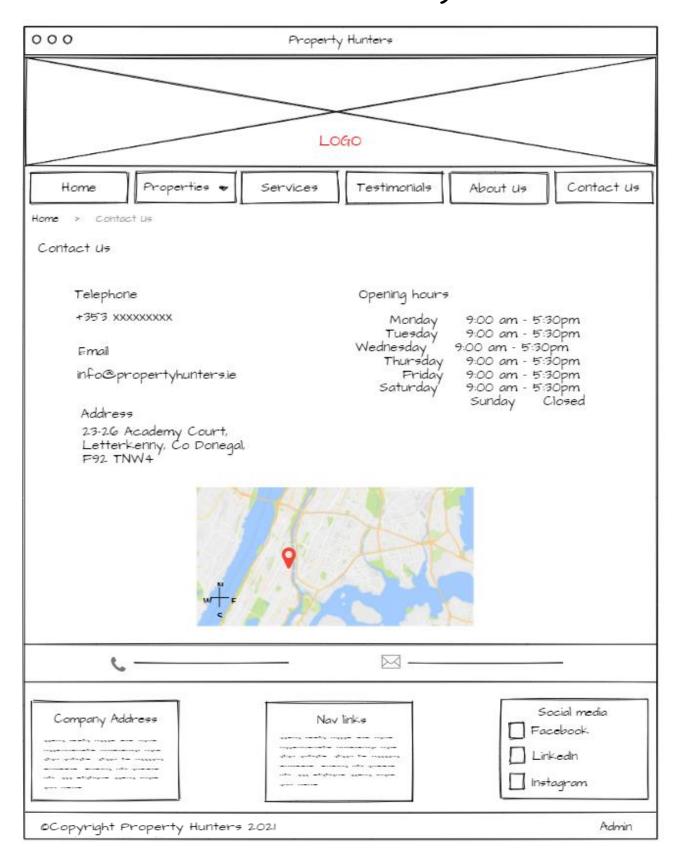
7. Wireframe of Testimonials page

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Excellent	Very competent t	eam	Ryan Byrne	Nov 2020		
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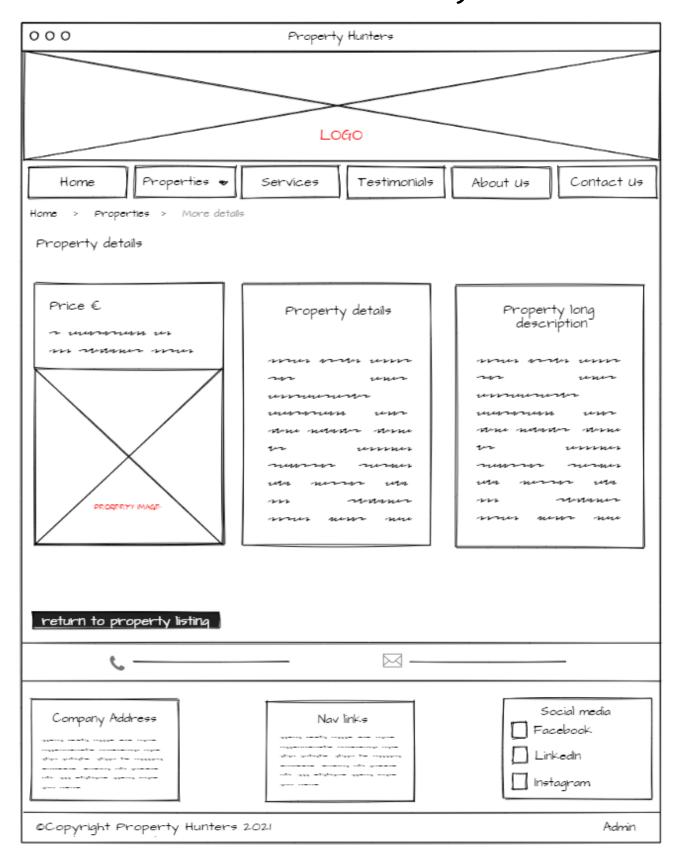
8. Wireframe of About Us page



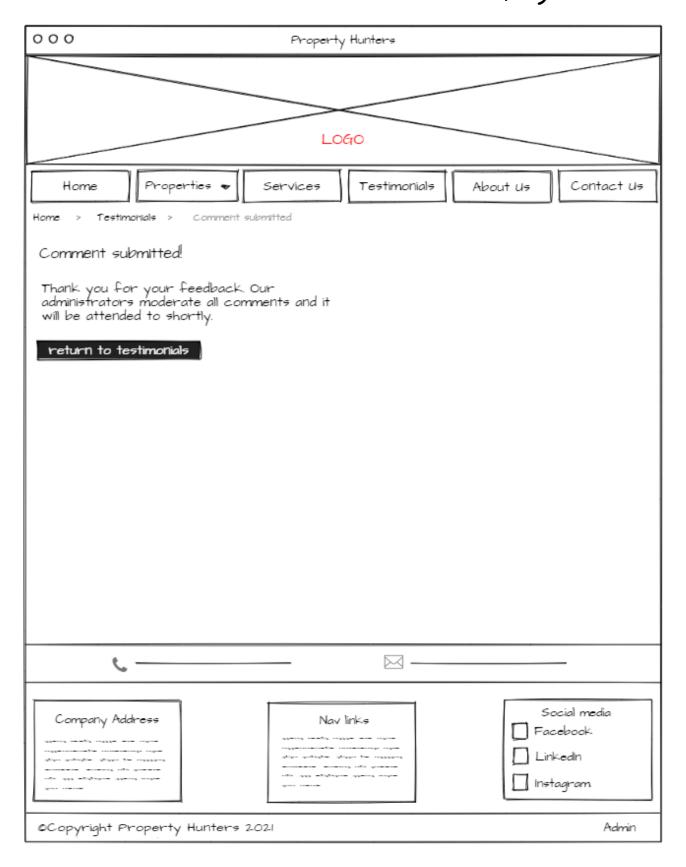
9. Wireframe of Contact Us page



10. Wireframe of More details page



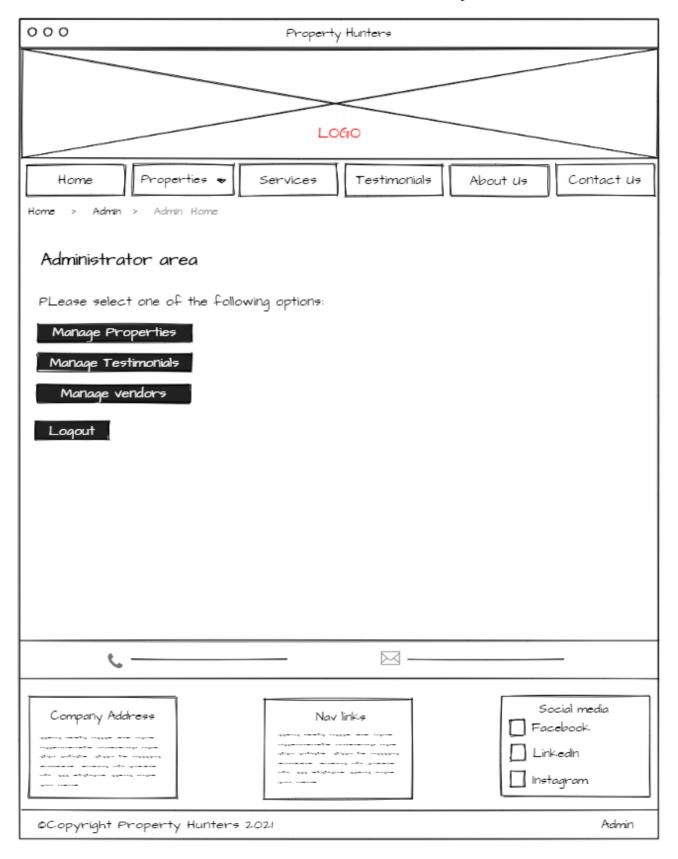
11. Wireframe of Testimonial added page



12. Wireframe of Admin login page

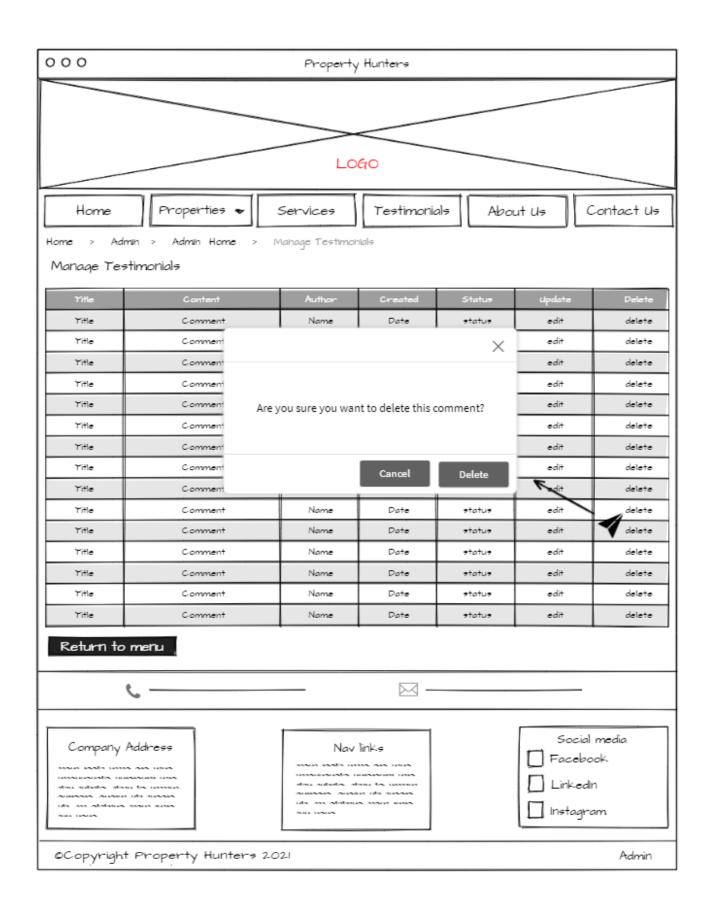
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13. Wireframe of Admin Home page



14. Wireframe of Manage testimonials page

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15. Wireframe of Manage properties page

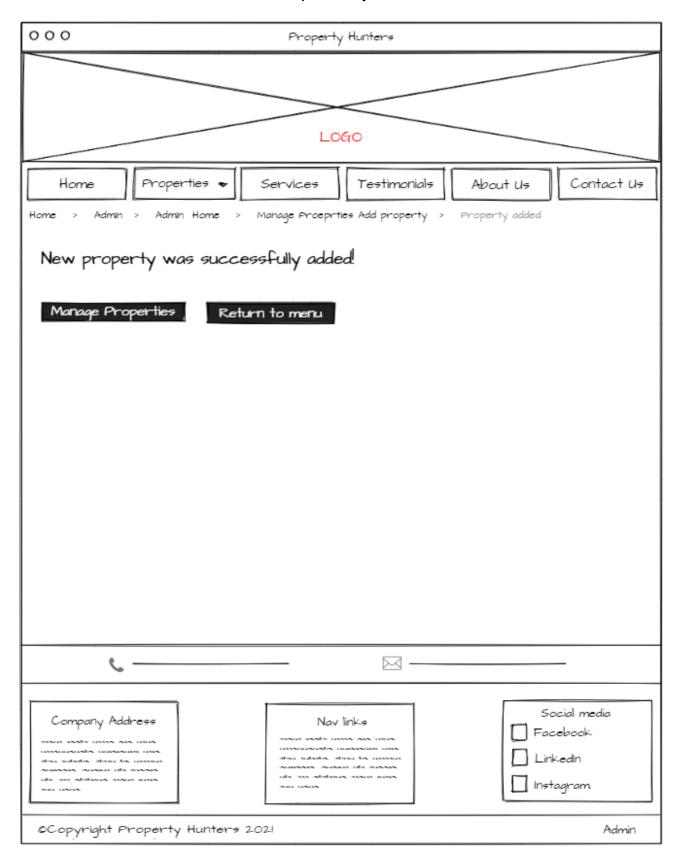
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Property	Address	Yown	Price	Description	Fdit	Delete
Property	Address	Yown	Price	Description	Edit	Delete
Property	Address	Yown	Price	Description	Fdit	Delete
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16. Wireframe of Add property form page

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Address:	Input	
Town:	Input	
County:	Input	
Price:	Input	
Bedrooms:	Input	
Short description	Input	
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Category ID:	Input	
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Add property	Return to menu	
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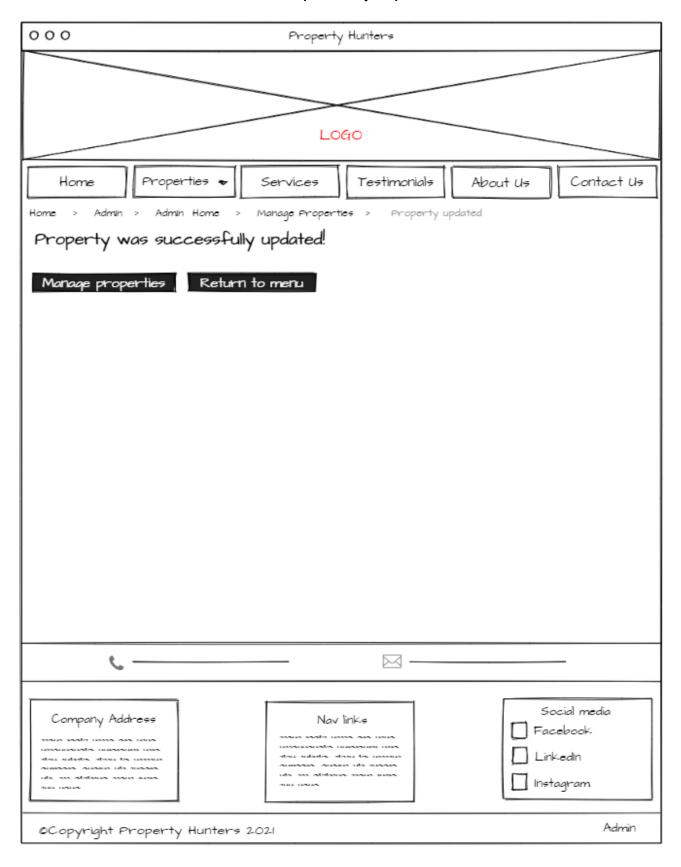
17. Wireframe of Property added



18. Wireframe of Edit property page

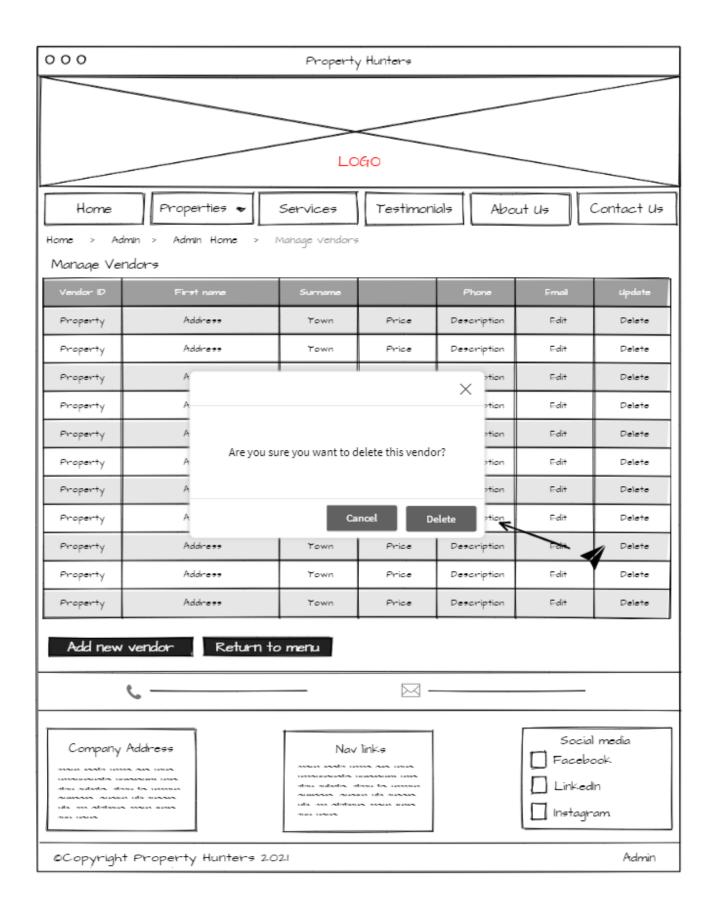
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Home > Admin > Admin Edit property Property ID: 12-3	In Home > Mahage Properties > Edit property	Contact Us
Town: Le County: Doi Price: 159 Bedrooms: 3 Short description W	etterkeiny shegal POOO Vell-maintained family home. Has to be viewed. This three-bedroomed property sits on an elevated site in a quiet	
Category ID: 5:	nages/housel2-34-15 4-32-1 B7G5-4 Return to menu	
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19. Wireframe of Property updated



20. Wireframe of Manage vendors page

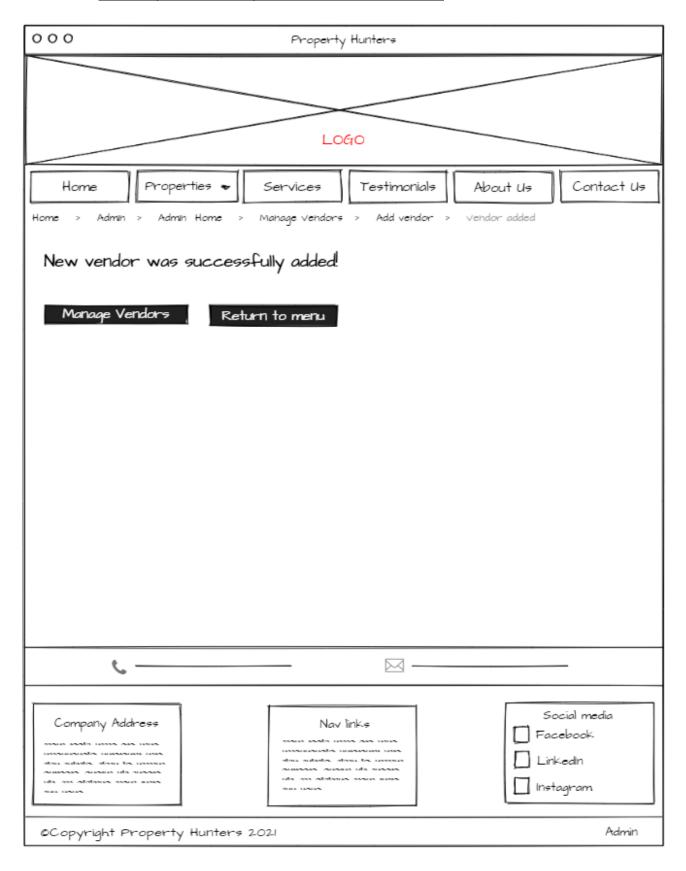
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Vendor ID	First name	Surname		Phone	Fmail	Update
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Property	Address	Yown	Price	Description	Fdit	Delete
Property	Address	Yown	Price	Description	Fdit	Delete
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21. Wireframe of Add vendors form page

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22. Wireframe of Vendors added



23. Wireframe of Edit vendor

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Home F	roperties Services Testimonials About Us Contact Us Admin Home > Manage vendors > Edit vendor
Edit vendor	
Vendor ID:	12.54-15
Surname:	Mohaghah
First name:	Joseph
Address:	Main street
Town:	Letterkenny
County:	Donegal
Mobile:	086234567
Email:	Jmon@tele.com
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24. Wireframe of Vendor updated

