



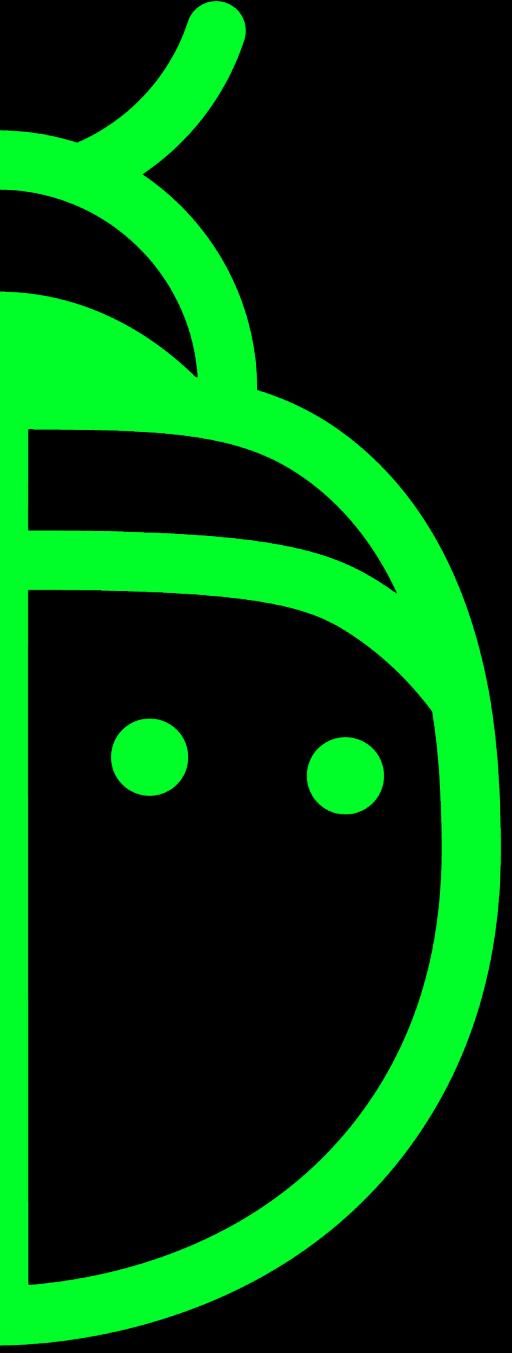
BEETLE INSIGHT

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Link : <https://iria.edinburgh.domains/FFF-SimpleExample/>

Design Motivations

Inspiration



Among the many creatures of nature, beetles are known for their diversity and adaptability, and they have survived the trials and tribulations of evolution for millions of years on Earth. Our project "Beetle Insight" is based on this perspective and seeks to transform the qualities of beetles into design inspiration and functionality. The core motivation of the design is to stimulate curiosity and interest in the world of entomology.



At the beginning of the project, our goal was to focus on beetles in the Amazon rainforest, a path that was challenging due to the lack of suitable prototype websites and materials to support it. However, in the later stages of our research, we came across 'UK Beetles', a website with a clear structure and rich content that served as a framework for building our platform. By drawing on its content, we were able to build a more solid and informative platform that allowed users to get up close and personal with these fascinating insects, thus setting the tone and direction of our project.

Design Goal

- User-friendliness: the interface should be simple and clear for easy navigation and use by users of all ages.
- Educational value: Ensure that all content contributes to educational purposes, including detailed beetle information, classification and explanation of ecological roles.
- Visual appeal: stimulate user interest and curiosity through high quality beetle imagery and eye-catching design elements.
- Accuracy of information: The UK Beetles website provides a reliable frame of reference to ensure that our content is accurate and scientifically sound.

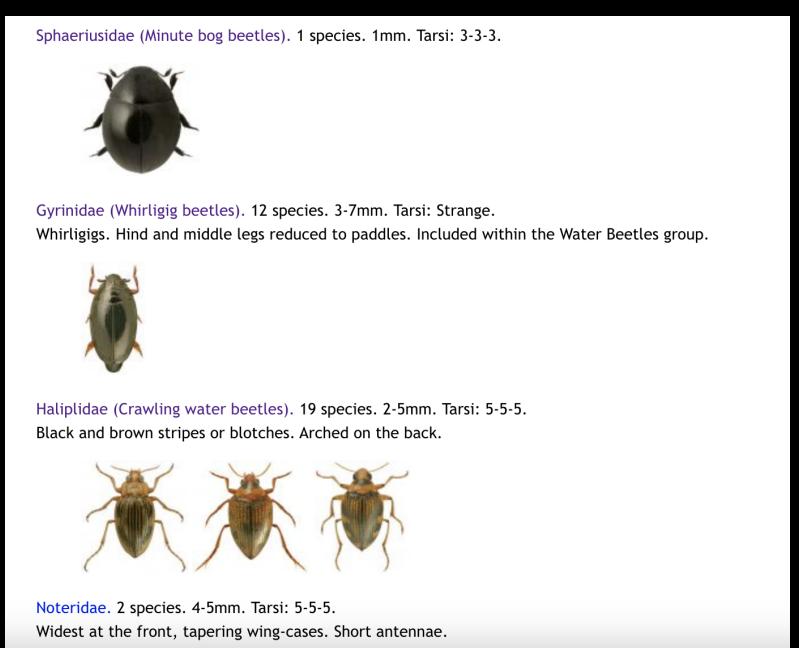
Archive: <https://www.coleoptera.org.uk/beetle-families>

Methodology

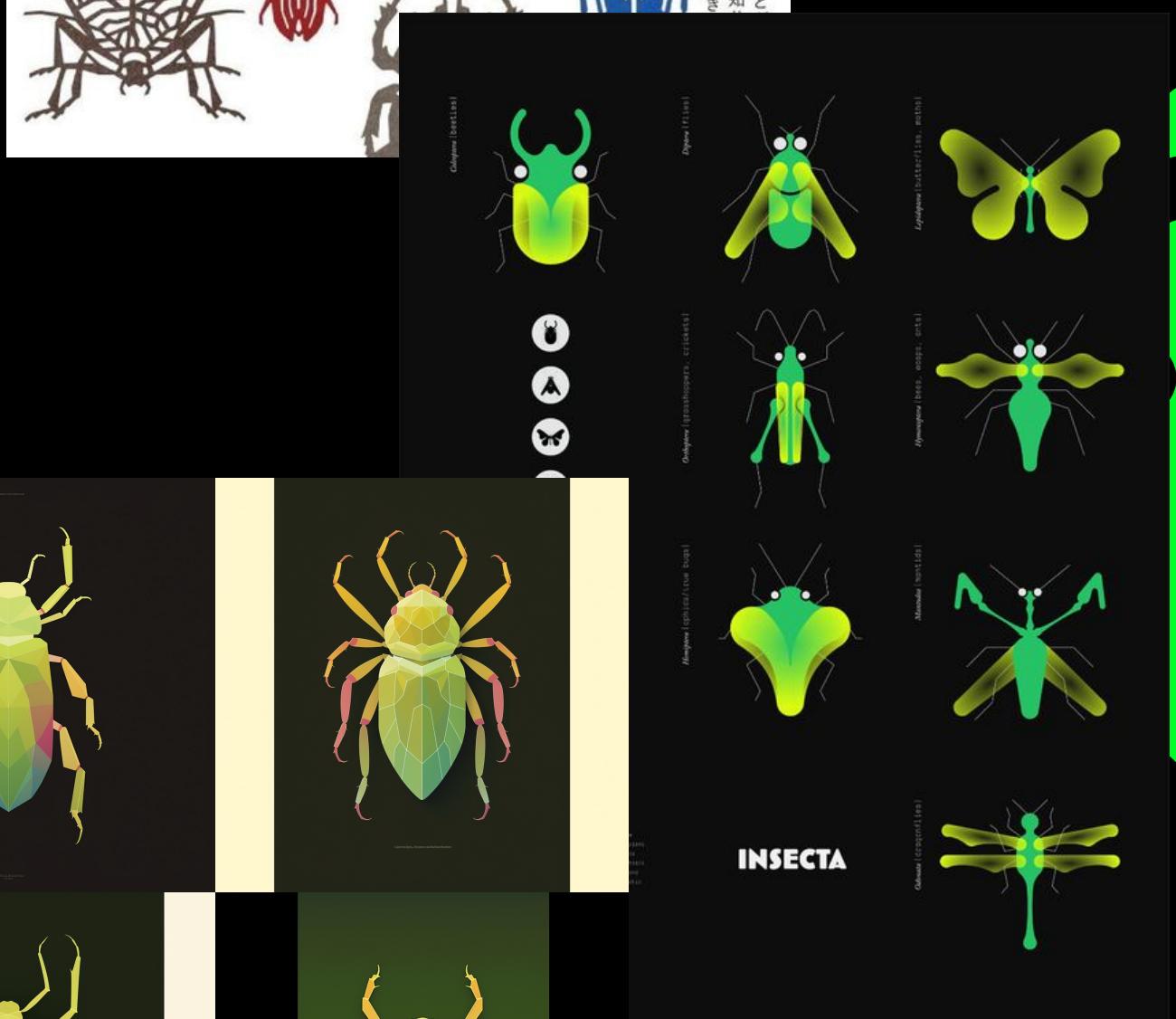
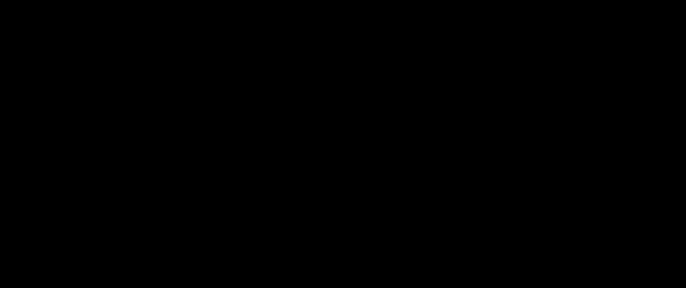
First, we decided to choose the field of education. After much thought, we decided on the theme of the website. We have chosen beetle research as our topic, and as an organisation we have chosen the UK Beetles website as the basis.

We determine what information the website needs to contain. Finally decide what interfaces will be on the site. After that, we started looking at different web resources related to beetle research to better understand what we needed to include on different pages of the site.

The screenshot shows the Gyrinidae family page of the UK Beetle Recording website. The header includes a navigation bar with links to Home, Beetles, Beetle recording, Resources, The Coleopterist, Photo gallery, and Contacts. Below the header, there is a section for Gyrinidae, which includes a common name (Whirligig beetles), number of species (12), size range (3-7mm), and tarsi type (Strange). There is also a section for Images, featuring a small thumbnail of a beetle. A detailed description follows, mentioning that the family has 12 British species, is most familiar as groups of small dark elliptical beetles swimming in circles on the open water of ponds and streams, and that some species live amongst emergent vegetation. The description notes that all are carnivorous, feeding on animals caught in the surface film. Larvae breathe through gills rather than from the surface, which may explain the group's predilection for deeper water bodies.

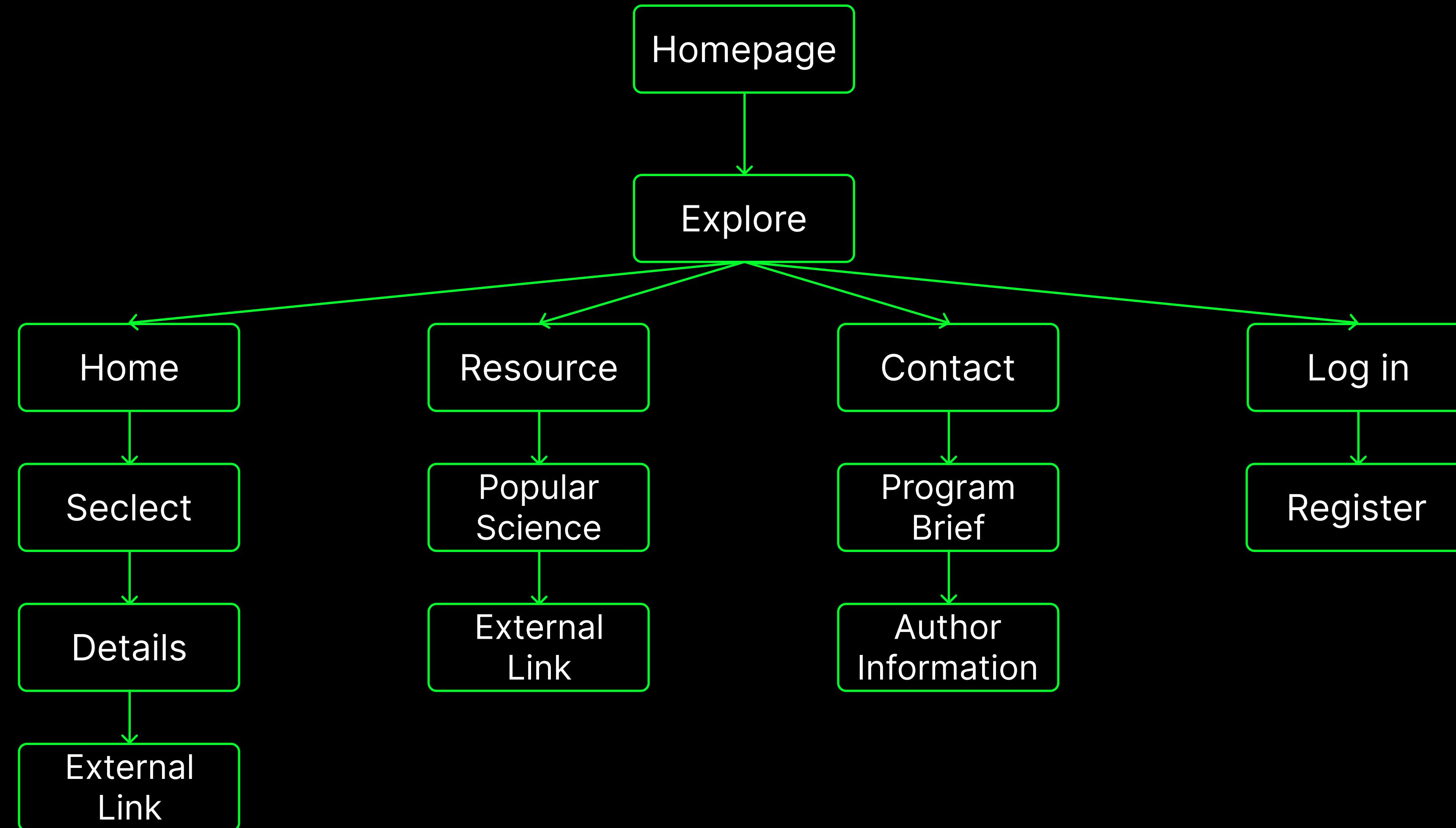


Moodboard



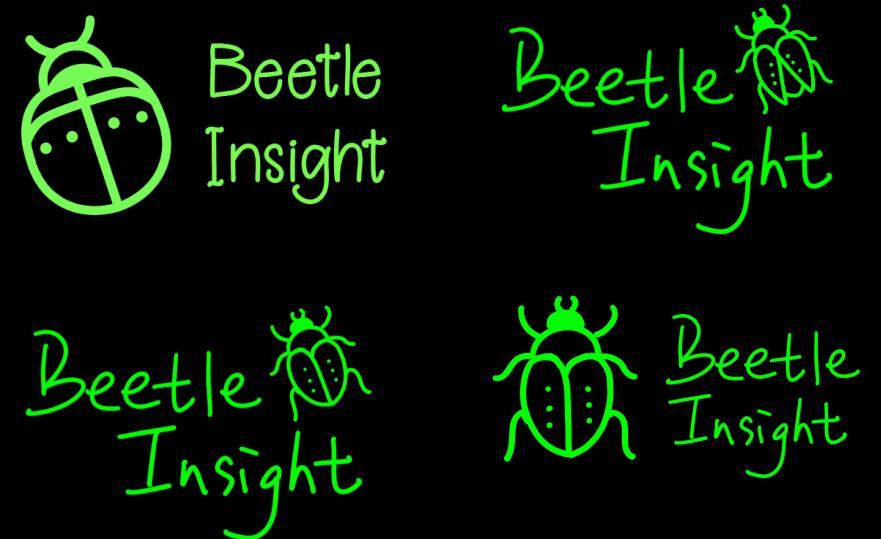
*Screenshot of main data web

User Flow



Design Process

Logo Design



Draft

Font

AMATICA SC

ABCDEFGHIJKLMNOPQRSTUVWXYZ

Calson Bold

ABCDEFGHIJKLMNOPQRSTUVWXYZ

Calson Book

ABCDEFGHIJKLMNOPQRSTUVWXYZ



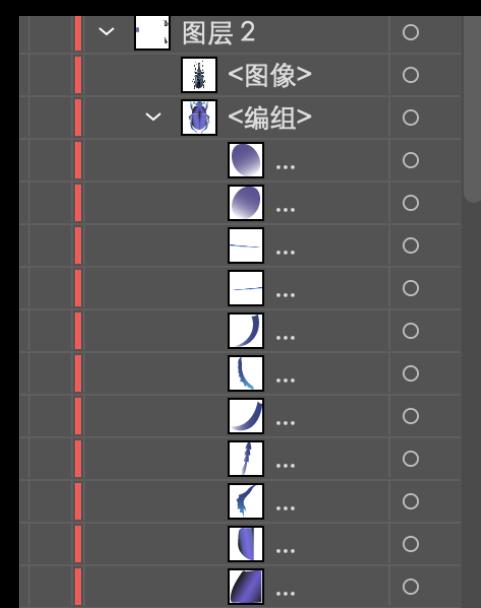
Final

Main colour

#FFFFFF

#00FF29

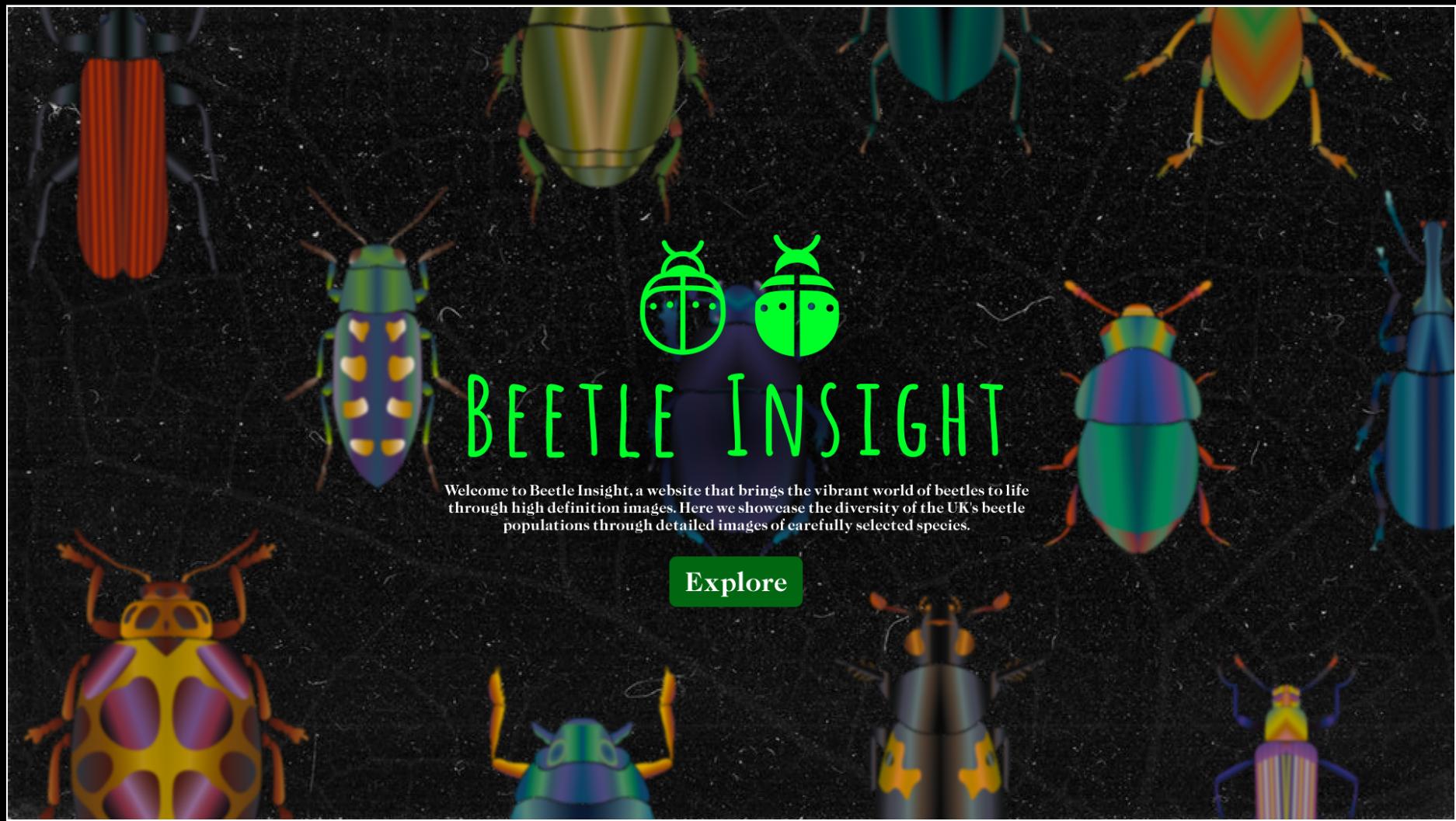
Elements Design



*Screenshot of Adobe Illustrator

The design process for the project showcased everything from multiple sketches of the logo to the finalized version, as well as the selected main colors and fonts. At the same time, a series of beetle designs are shown, and Adobe Illustrator is used to draw an illustration of each beetle by referring to real photos. These illustrations are used to enrich the visual experience of the site, supplemented by adjusted background images as a key component of the user interface.

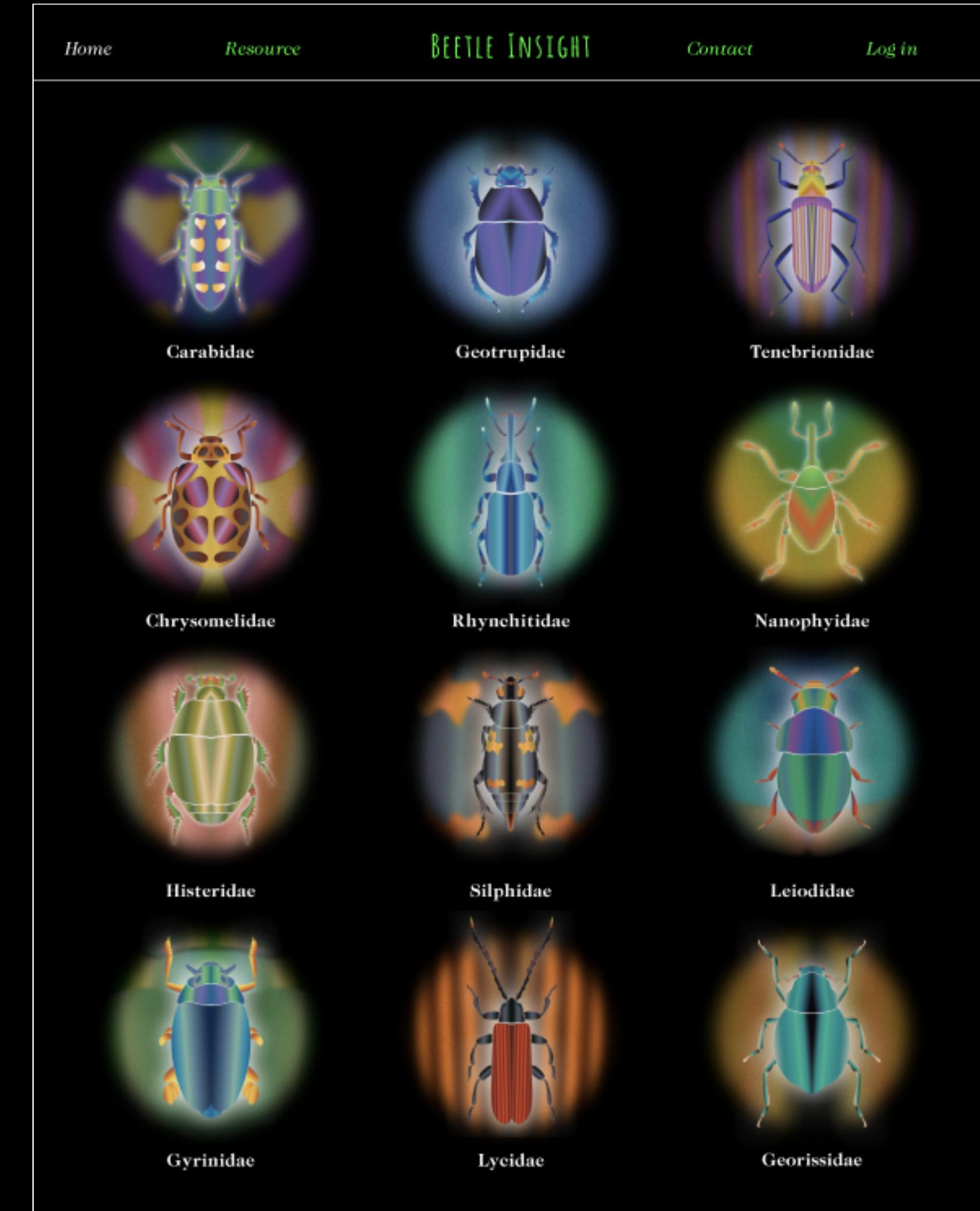
Execution



Homepage

The homepage displays the logo of the "Beetle Insight" website and a series of images of colorful beetles. A welcome text in the centre of the page directs users to learn more about the diversity of British beetles through the "Explore" button.

This display page shows different species of beetles with their family name below each beetle. Click the picture to jump to the detailed introduction interface. The top of the page is a navigation bar, including "Home", "Resources", "Contact us" and "login" four parts.



Display page

Execution

The screenshot shows the "Carabidae" page on the Beetle Insight website. At the top, there is a navigation bar with links for Home, Resource, BEETLE INSIGHT (highlighted in green), Contact, and Log in. Below the navigation bar is a large image of a beetle. To the right of the image, the title "*Carabidae*" is displayed in a large, bold, green font. Below the title is a table with the following data:

Common name	Ground beetles
Number of species	374
Size Range	2-30mm
Tarsi	5-5-5

Below the table, there is a descriptive text block: "Carabid beetles are diverse, with 362 species on the 2012 British list, rivaling bird species. They are found in various habitats, with riparian and coastal areas being particularly rich. Traditionally subdivided, the British list recognizes four subfamilies: Cincindelidae (5 tiger beetle species), Brachininae (2 bombardier beetle species), Omophroninae (1 species), and Carabinae (354 ground beetle species)." At the bottom of the page are two buttons: "Video" and "Link".

Content

This page provides detailed information on the "Carabidae", including their common names, number of species, size range, foot structure. In the center of the page is a high-definition image of a beetle that users can zoom in on. The text describes the biodiversity of the family, their distribution in different habitats, and the number of species on the UK list in 2012. Video and link buttons are provided at the bottom of the page for users to get more information.

The screenshot shows the login screen for the Beetle Insight website. At the top, there is a navigation bar with links for Home, Resource, BEETLE INSIGHT (highlighted in green), Contact, and Log in. The background of the page features a close-up image of a beetle. In the center, the word "Log in" is displayed in a large, white, sans-serif font. Below the text are two input fields: one for "Username" and one for "Password", both with placeholder text ("Username" and "Password"). Below the password field is a green button labeled "Sign Up". At the bottom of the form, there are two small links: "Forgot Password" and "Sign in".

Log in

This is the login screen for the website. It provides input fields for passwords and usernames, as well as "Sign in" and "Forgot Password" buttons. The background of the interface is a high-definition image of a beetle, which matches the nature theme of the entire site.

Execution

The screenshot shows a website with a dark green background featuring a faint, repeating pattern of beetles. At the top, there is a navigation bar with links for Home, Resource, BEETLE INSIGHT (which is highlighted in blue), Contact, and Log in. Below the navigation bar, the main title 'What are Beetles?' is displayed in a large, white, serif font. Underneath the title, there is a section titled 'How to recognise a beetle' with a small, dark gray rectangular image placeholder. To the right of this section, there is a block of text explaining beetle characteristics: 'Beetles are insects in the Order Coleoptera - which means 'sheath-winged'. This refers to their generally most obvious characteristic - they almost always have forewings modified to form protective wing cases (elytra), covering the hind wings (if they have any) used for flight.' Further down the page, there are several other sections with placeholder images and text, such as 'Beetles almost invariably have biting mouthparts, with sharp mandibles. Many are predators of other insects or invertebrates; while others are plant-feeders, fungus-feeders, or re-cycle decaying animal or plant remains, including dung.' and 'There are four stages in the life cycle: egg, larva, pupa and adult. Like moths and butterflies, but unlike grasshoppers or bugs, there is a cocoon (or pupal) stage in their life-cycle, and they undergo a 'complete metamorphosis' from a larva to the adult. Only a very small number of species have an adult stage that retains a similar form to the larva, such as the female Glow-worm Lampyris noctiluca. There is no nymph stage and a small beetle does not grow any larger, unlike the nymph stages of bugs.' At the bottom left, there is a link labeled 'Learn More'.

Resource

This page is an information page on the website that explains what beetles are and how to identify them. The content includes the definition, characteristics and life cycle of the beetle. The content of the current page has not been completely completed, and relevant information will continue to be supplemented and improved in the future to provide more comprehensive educational resources.

Execution

```
<div class = "grid-container">  
    <div class = "item1"></div>  
    <div class = "item2"></div>  
    <div class = "item3"></div>  
    <div class = "item4"></div>  
    <div class = "item5"></div>  
  
    <div class = "item6">  
          
        <a href="https://iria.edinburgh.domains/FFF-SimpleExample/ui/main.html" class="explore-button">Explore</a>  
    </div>  
  
    <div class = "item7"></div>  
    <div class = "item8"></div>  
    <div class = "item9"></div>  
    <div class = "item10"></div>  
    <div class = "item11"></div>  
    <div class = "item12"></div>  
    <div class = "item13"></div>  
</div>
```



This part of the code divides the entire page into a uniform size grid through the "div" element of the class "grid-container", while the middle part is merged to use the title logo and buttons. Users can explore further by clicking a button that links to another web page.

```
<p>WELCOME TO THE WORLD OF BEETLES!</p>  
<form id="form1" name="sign up" method="post" action="<?php echo htmlspecialchars($_SERVER['PHP_SELF']);?>">  
    Username: <input name="username" type="text" placeholder="Username" id="username" size="50"><span class="error">*<?php echo $nameErr;?></span>  
    <br><br>  
    E-mail: <input name="email" type="text" placeholder="Email address" id="email" size="50"><span class="error">*<?php echo $emailErr;?></span>  
    <br><br>  
    Gender:  
    <input type="radio" name="gender" value="female" ><?php if (isset($gender) && $gender=="female") echo "checked";?> Female  
    <input type="radio" name="gender" value="male" ><?php if (isset($gender) && $gender=="male") echo "checked";?> Male  
    <input type="radio" name="gender" value="other" ><?php if (isset($gender) && $gender=="other") echo "checked";?> Other  
    <span class="error">*<?php echo $genderErr;?></span>  
    <br><br>  
    Password: <input name="password" type="text" id="password" size="50" /><span class="error">*<?php echo $passwordErr;?></span>  
    <br><br>  
    Confirm password: <input name="confirm_password" type="text" id="confirm_password" size="50" />  
<p>  
    <input type="submit" name="Submit" value="Submit" />  
</p>  
</form>
```



The form is set to use the POST method to submit the data to the server. It includes fields for a username, email, gender selection, password, and password confirmation.

PHP code snippets (<?php ... ?>) are embedded within the HTML, suggesting that server-side validation is performed. Error messages, if any, would be displayed next to the input fields through PHP echo statements.

The form ends with a submit button, allowing the user to send their information for processing.

Execution

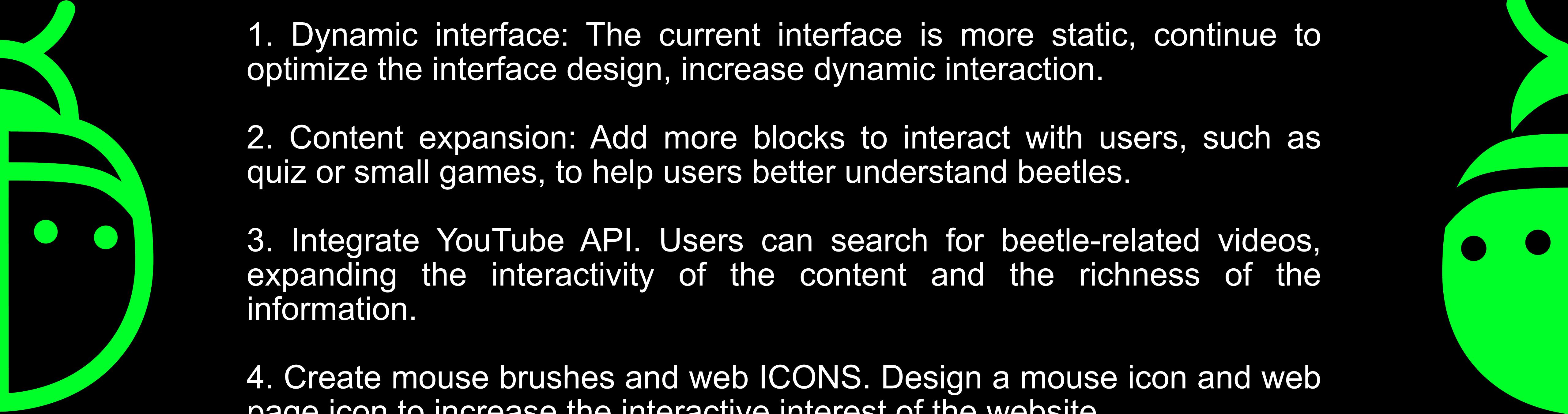
```
<div class="insect-grid">
  <div class="insect-item main-nav">
    <nav>
      <ul class="topnav">
        <li><a class="active" href="https://iria.edinburgh.domains/FFF-SimpleExample/ui/home.html">Home</a></li>
        <li><a href="https://iria.edinburgh.domains/FFF-SimpleExample/ui/resource.html">Resource</a></li>
        <li><h1>BEETLE INSIGHT</h1></li>
        <li><a href="https://iria.edinburgh.domains/FFF-SimpleExample/ui/about.html">About</a></li>
        <li><a href="https://iria.edinburgh.domains/FFF-SimpleExample/ui/signupform.html">Log in</a></li>
      </ul>
    </nav>
  </div>
  <div class="insect-item item1">
    <a href="https://iria.edinburgh.domains/FFF-SimpleExample/ui/description/detail.html">
      
      <p>Carabidae</p>
    </a>
  </div>
  <div class="insect-item item2">
    <a href="https://iria.edinburgh.domains/FFF-SimpleExample/ui/description/detail.html">
      
      <p>Chrysomelidae</p>
    </a>
  </div>
  <div class="insect-item item3">
    <a href="https://iria.edinburgh.domains/FFF-SimpleExample/ui/description/detail.html">
      
      <p>Georissidae</p>
    </a>
  </div>
  <div class="insect-item item4">
    <a href="https://iria.edinburgh.domains/FFF-SimpleExample/ui/description/detail.html">
      
      <p>Geotrupidae</p>
    </a>
  </div>
  <div class="insect-item item5">
    <a href="https://iria.edinburgh.domains/FFF-SimpleExample/ui/description/detail.html">
      
    </a>
  </div>
```

This image shows HTML markup for a webpage layout. The code includes a navigation bar (`<nav>`) and a grid of insect items.

The navigation bar (`<nav>`) is a horizontal top navigation menu. It contains links (`<a>`) to various sections of the website, including "Home," "Resource," "About," and "Log in." The "Home" link is marked as "active," likely indicating the current page or section.

Below the navigation, there is a div with the class "insect-grid," which seems to be a container for displaying insect items. Each div contains an anchor (`<a>`) wrapping an image (``) and a paragraph (`<p>`) that labels the insect.

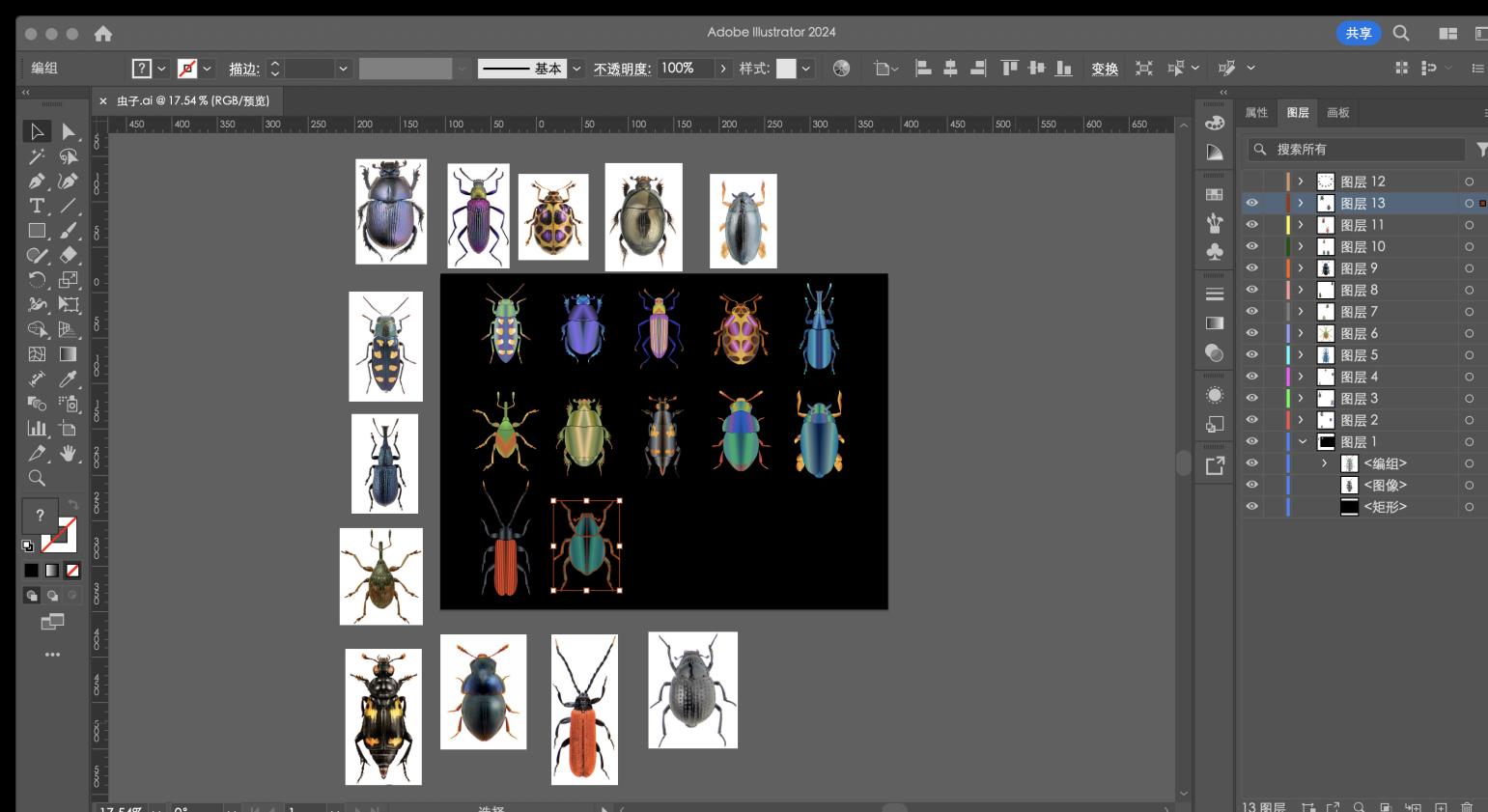
Intended BETA Developments

- 
1. Dynamic interface: The current interface is more static, continue to optimize the interface design, increase dynamic interaction.
 2. Content expansion: Add more blocks to interact with users, such as quiz or small games, to help users better understand beetles.
 3. Integrate YouTube API. Users can search for beetle-related videos, expanding the interactivity of the content and the richness of the information.
 4. Create mouse brushes and web ICONS. Design a mouse icon and web page icon to increase the interactive interest of the website.
 5. Develop tool pages. Create a small window that pops up when the user clicks on the tool icon, explaining the purpose of each tool.

Team Role

Jiayi Chen

Responsible for all coding implementation and research, translating design into functional code, ensuring the interactivity and technical performance of the website.



Chenying Liu

Responsible for all visual design parts of the project, research and resource finding, creating the site's interface, and ensuring that the user experience is intuitive and engaging.

Reference List

Pictures

<https://www.pinterest.co.uk/pin/705376360374763974/>

<https://www.pinterest.co.uk/pin/1759287346954957/>

<https://www.pinterest.co.uk/pin/304204149820804128/>

<https://www.pinterest.co.uk/pin/25755029110474847/>

<https://www.ukbeetles.co.uk/nanophyidae>

<https://www.pinterest.co.uk/pin/12314598967825217/>

<https://www.pinterest.co.uk/pin/11329436549739975/>

<https://www.pinterest.co.uk/pin/14566398781414509/>

<https://www.pinterest.co.uk/pin/20195898307766958/>

<https://www.nhbs.com/icones-insectorum-europae-centralis-coleoptera-drilidae-omalisidae-lycidae-lampyridae-english-czech-book>

<https://www.pinterest.co.uk/pin/122512052355939324/>

<https://www.pinterest.co.uk/pin/1006906429175846841/>

Text

<https://www.coleoptera.org.uk/beetle-families>

<https://www.coleoptera.org.uk/what-are-beetles>

Code

<https://chat.openai.com/>

<https://www.w3schools.com/>