

Pie Plugin

Description

Pie is a plugin which creates a custom post type with the name 'Pie'. In this custom post type, metaboxes such as pie type and ingredients have been added for personalization and ease of search. It also contains a shortcode through which you can either show specific pie posts according to editor tastes or search for specific pies yourself with the type and ingredients search.

Installation

In order to install the plugin, you will have to navigate to the plugin section and click the "Add New" button. From there, you can click the "Upload Plugin" link and add the provided ZIP file there. After that, click install now and activate the plugin. Now, you are ready to go!!

Using the Shortcode

The plugin provides a shortcode with which you can display all the pies or the specific pies for the users to see and interact with. To use this, you can either create a page or add it into your existing page. Once you reach the edit page section of your page, add the following into the page body: `[pies]`. With this, you can display all the pie posts in the specific page. Or, you could display specific pies using the lookup and ingredients keys. To do this, you can use the following as a reference: `[pies lookup="Apple" ingredients="dough, sugar" posts="5"]`. Replace the values within the apostrophes (" ") with your specifications.

Features

In this plugin, two features can be said to be implemented. It contains a search feature and a pagination feature. With the search feature, you can search within the pie post type with specifics such as types and ingredients. The pagination feature, on the other hand, can help make the page look neater by reducing the amount of posts shown per page. If posts exceed a specific limit (default 5), then the remaining posts are transferred to another page and so on.

OOP Approach

Pie-Admin.php

Class Structure:

Class Definition:

- Class Name: `pie_admin`
- Purpose: Manages the custom post type for "Pie" and associated meta boxes.

Constructor (`__construct`):

- Registers actions using WordPress hooks for initializing the custom post type, adding meta boxes, and saving meta box data.

Methods:

- `Pie_create_post_type`:
 - Registers a custom post type called "Pie."
 - Defines parameters like labels, visibility, supports, and REST API integration.
- `Pie_add_meta_boxes`:
 - Adds meta boxes to the "Pie" post type.
 - Uses WordPress's `add_meta_box` function to display custom fields in the admin area.
- `Pie_type_field`:
 - Displays an input field for "Pie Type" in the meta box.
 - Retrieves and sanitizes data from the database.
- `Pie_ingredients_field`:
 - Displays a textarea for "Ingredients."
 - Handles JSON encoded data for easier manipulation and storage.
- `Save_pie_meta_boxes`:
 - Saves meta box data when the post is saved.
 - Sanitizes and updates the "Pie Type" and "Ingredients" fields.

Design Choices:

- Encapsulation:
 - All related functionalities (post type registration, meta boxes management, and data saving) are encapsulated within the `pie_admin` class.
- Separation of Concerns:
 - Each method has a single responsibility, making the code more modular and maintainable.

- Action and Filter Hooks:
 - Utilizes WordPress hooks (init, add_meta_boxes, save_post) to integrate with WordPress's lifecycle, ensuring that custom functionality is executed at the appropriate times.

Data Handling:

- Sanitization: Ensures that data entered into meta boxes is sanitized before saving to the database.
- JSON Encoding: Uses JSON to handle arrays of ingredients, facilitating easier data management and storage.

Pie-Shortcode.php

Class Structure:

Class Definition:

- Class Name: `pie_lookup`
 - Purpose: Handles the creation and functionality of a shortcode that allows users to search for "Pie" posts by type and ingredients, and display results with pagination.
- Constructor (`__construct`):
 - Registers the `[pies]` shortcode and associates it with the `create_pie_lookup` method. This setup ensures that the shortcode can be used in WordPress content.

Methods:

- `create_pie_lookup($atts)`:
 - Purpose: Generates the output for the `[pies]` shortcode.
- Attributes Parsing:
 - Uses `shortcode_atts` to provide default values and handle user-specified attributes for lookup, ingredients, and posts.
- Form Handling:
 - Displays a search form to filter pies based on type and ingredients.
- WP Query Arguments:
 - Constructs a query to fetch "Pie" posts with support for pagination, filtering by lookup and ingredients.
- Pagination:
 - Handles the adjustment of page numbers and displays paginated results.
- Redirect Handling:
 - Ensures the current page number does not exceed the total number of pages by redirecting if necessary.

Design Choices:

- Encapsulation:
 - All functionalities related to shortcode processing, query handling, and output generation are encapsulated within the `pie_lookup` class.

Modular Design:

- Shortcode Attributes:
 - Uses `shortcode_atts` to manage default values and user input, allowing flexibility in shortcode usage.
- Form Display:
 - Provides a search form for user input, which is integrated into the shortcode's output.
- Query and Pagination:
 - Handles querying and pagination logic within the method, keeping the shortcode output generation self-contained.

Data Handling:

- Sanitization:
 - Ensures that user input from shortcode attributes and URL parameters is sanitized using `sanitize_text_field` to prevent security issues.
- Integer Conversion:
 - Converts the `posts` attribute to an integer with `intval` to ensure correct query parameters.

WordPress Integration:

- Shortcode Registration:
 - Registers the shortcode using `add_shortcode`, making it available for use in posts, pages, or widgets.
- WP_Query:
 - Utilizes `WP_Query` to fetch posts based on dynamic parameters, ensuring compatibility with WordPress's querying and pagination systems.

GITHUB: <https://github.com/TBS099/pie>