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| RAZDA Co. | | |
| **Filename: [widget\_manager.py]** | | |
| **Summary***:*  Facilitates role-based management of widgets, allowing authorized users to add, remove, customize, and preview widgets on their pages. This module interfaces with permissions\_management.py for access control and page\_editor.py to manage widget placement and customization on web pages. | | |
| ***Processes*** | | |
| * **View Widgets:** | **Checks if a user has permission to view the widget catalog and displays the available widgets for customization (view\_widgets).** | |
| * **Add Widget:** | **Allows authorized users to add a selected widget type to a specified page. The widget and page details are sent to page\_editor for addition (add\_widget)** | |
| * **Remove Widget:** | **Enables users with appropriate permissions to remove a widget from a page. The widget ID is sent to page\_editor for removal (remove\_widget).** | |
| * **Customize Widget:** | **Provides customization options for a selected widget type, allowing users to adjust settings like display count and style. Settings are saved through page\_editor (customize\_widget).** | |
| * **Preview Widget:** | **Allows users to preview a widget’s appearance with current customization settings before applying them. (preview\_widget).** | |
| **Files it Gets Information From:** | | **Files it Sends too:** |
| * **permissions\_management.py**: Checks if the user’s role allows access to each widget action (view, add, remove, customize, preview). | * **Logs (widget\_manager.log)**: Logs all widget-related actions (add, remove, customize, and preview) to track user activities and ensure accountability | |
| * **user\_setup.py**: Retrieves the user’s role to confirm access permissions for each widget function. | * **Templates (widget\_catalog.html, customize\_widget.html, widgets/<widget\_template>.html)**: Displays widget options and customization forms, as well as previews of selected widgets. | |
| * **page\_editor.py**: Interacts with PageEditor to add, remove, and customize widgets on user pages, handling all page modifications. | * **Alerts (alert\_automation.py)**: Sends alerts in case of unauthorized access attempts or widget errors. | |
| **Expected input into file:** | | **Expected output from file:** |
| * **User Role and Permissions**: Ensures the user’s role has necessary permissions to manage widgets (view, add, remove, customize, preview). * **Widget Type and Page ID**: Accepts widget type and page ID when adding/removing widgets, ensuring the widget is applied to the correct page. * **Customization Settings**: Accepts settings (e.g., color, style) for each widget, allowing users to personalize widgets before saving or previewing. | | * **Widget Catalog Display**: Displays the catalog of widgets for authorized users, allowing them to choose widgets to add or customize. * **Widget Customization**: Applies customization settings (e.g., display count, style) to widgets as specified by the user, saved through page\_editor. * **Widget Previews Rendered**: Renders a temporary preview of widgets with current settings, allowing users to verify the appearance before saving. |
| **Things that need to be taking place:** | | |
| |  | | --- | | **- Role-Based Access Control: Ensures only users with appropriate permissions can manage widgets, preserving page integrity and preventing unauthorized changes.** |  |  | | --- | | **- Form Validation: Verifies that all required widget settings are filled out before proceeding with add, customize, or preview actions.** |  |  | | --- | | **- Error Handling and Logging: Logs all actions and errors, especially failed attempts to add or customize widgets, for audit and troubleshooting.** |  |  | | --- | | **- Database Operations (optional): Potential to save user-specific widget settings or use database retrieval if widgets require persistent settings.** |  |  | | --- | |  | | | |
| Edit log (update each time you make changes to doc or file). | | |
| | **Possible Enhancements:** | | --- |  |  | | --- | | - **User-Specific Widget Configurations**: Allows users to save custom widget configurations for quick addition on multiple pages. |  |  | | --- | | - **Live Widget Editor**: Enables drag-and-drop widget customization, allowing users to see changes in real-time as they adjust settings. |  |  | | --- | | - **Custom Widget Creation**: Provides advanced users or admins with options to create their own widgets, further expanding customization. |  |  | | --- | | - **Dynamic Permissions**: Adds finer-grained permission levels, allowing different types of users to access specific widgets based on roles. | | | |
| * Oliver Smith (Razda Admin) Nov 8, 2024: | | |