DEMO
Question bank plugins

- Install under: question/bank/...
- Namespace/prefix: qbank_*
- Can define:
  - Table columns
  - Action menu items
  - Bulk actions
  - Navigation node (tabs)
  - Question preview additions (via callback)
Question bank plugin - Structure: base

- Extend: plugin_features_base
- get_question_columns
  - Columns
- Action menu items
- get_navigation_node
- get_bulk_actions
Question bank plugin -
Structure:
plugin_feature.php

- classes/plugin_feature.php
- Extends base
- Lightweight
```php
class plugin_feature extends \core_question\local\bank\plugin_features_base{

    public function get_question_columns($qbank): array {
        return [
            new history_action_column($qbank),
            new version_number_column($qbank)
        ];
    }
}

class plugin_feature extends plugin_features_base {
    public function get_question_columns($qbank): array {
        return [
            new delete_action_column($qbank),
        ];
    }

    public function get_bulk_actions(): ?object {
        return new bulk_delete_action();
    }
}
```
class plugin_feature extends plugin_features_base {

    public function get_question_columns($qbank): array {
        // We make a column for each custom field and load the data into it.
        $columns = [];

        // First get all the available question custom fields.
        $customfieldhandler = question_handler::create();
        $fields = $customfieldhandler->get_fields();
        $context = $qbank->get_most_specific_context();

        // Iterate through the fields initialising a column for each.
        // We don't need to know the values that questions have at this stage.
        foreach ($fields as $field) {
            if ($customfieldhandler->can_view_type($field, $context)) {
                $customfieldcolumn = new custom_field_column($qbank, $field);
                $columns[] = $customfieldcolumn;
            }
        }

        return $columns;
    }
}
<table>
<thead>
<tr>
<th>Question name / ID number</th>
<th>Actions</th>
<th>Comments</th>
<th>Status</th>
<th>Version</th>
<th>Facility index</th>
<th>Discriminative efficiency</th>
<th>Last modified by</th>
<th>Reviewed</th>
<th>Review Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>A few words abc123 Moodle Advanced</td>
<td>Edit ▼ 0</td>
<td>Ready</td>
<td>v3</td>
<td>N/A</td>
<td>N/A</td>
<td>Admin User 5 October 2021, 8:48 PM</td>
<td>Yes</td>
<td>5 October 2021</td>
<td></td>
</tr>
<tr>
<td>Moodle activities 101 matching</td>
<td>Edit ▼ 3</td>
<td>Ready</td>
<td>v1</td>
<td>N/A</td>
<td>N/A</td>
<td>Admin User 5 October 2021, 6:17 PM</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greeting 103 multiple choice media language</td>
<td>Edit ▼ 1</td>
<td>Ready</td>
<td>v1</td>
<td>N/A</td>
<td>N/A</td>
<td>Admin User 5 October 2021, 6:17 PM</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moodle user 104 short answer easy</td>
<td>Edit ▼ 0</td>
<td>Ready</td>
<td>v4</td>
<td>N/A</td>
<td>N/A</td>
<td>Admin User 5 October 2021, 6:17 PM</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moodle acronym 105 true/false</td>
<td>Edit ▼ 0</td>
<td>Ready</td>
<td>v1</td>
<td>N/A</td>
<td>N/A</td>
<td>Admin User 5 October 2021, 6:17 PM</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>zoology</td>
<td>Edit ▼ 0</td>
<td>Draft</td>
<td>v1</td>
<td>N/A</td>
<td>N/A</td>
<td>Admin User 5 October 2021, 6:48 PM</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Question bank plugin - Structure: Feature classes

- get_question_columns
- [menu_action_column_base]
- get_navigation_node
- navigation_node_base
- get_bulk_actions
- bulk_action_base
Question bank plugin - Structure: Preview callback

- lib.php
- Implement: qbank_<plugin>_preview_display
- Returns HTML to display
Question bank plugin -
Structure: Backup / Restore

- Backup and Restore supported
- Extend:
  - `backup_qbank_plugin`
  - `restore_qbank_plugin`
- Examples:
  - `qbank_comment`
Question bank plugin - Structure: API Changes

- API Refactored
- Deprecations
- Modifications & plugin updates
Next Steps

- In 4.0
  - Comment, Custom fields
  - History, usage, statistics & more...
- Plugin ideas
  - Workflow & approval
  - Up to you...