**NIUA Question Pattern with example**

**Assessment Requirements**

1. **Form Builder Module**
   * + 1. This module should be OpenRosa or ODK XForms specification compatible. Please [refer to the specs](https://getodk.github.io/xforms-spec/) for more details.
       2. Question bank module (a database of questions shared across various users with appropriate permission) for users with specific roles to add questions with various response types as mentioned below:
     1. **Select One:**

Let us suppose below example:

* Do you feel comfortable asking for help when you’re stuck?
* Yes, I feel very much comfortable asking for help. That’s how you learn!
* No, I’m scared people might judge me.
  + 1. **Select Many:**
* Which 3 features of our product are most valuable to you?
* Ease of use
* Functionality
* Build durability
* Portability
* Design and aesthetics
  + 1. **Short Text**
* This figure is made by joining two rectangles.  
    
  A diagram of a square

  Description automatically generated

Enter the area, in square feet, of the figure.

Enter your answer:

* What is your favorite color?

Enter your answer:

* “An exam question in which students must uniquely associate prompts and options is called a  
  \_\_\_\_\_\_\_\_\_\_\_ question.”
  + 1. Long Text
* Who is your role model & why?

Enter your answer:

* + 1. Number (Integer)

2.45

* + 1. Decimal (Float)

2.45

* + 1. Date

When did you join the company?

31 v / 10 v / 2023 v

* + 1. Time

What is your time of birth?

Min

Hour

* + 1. Date and time

What is your date & time of birth?

Min

Hour

31 v / 10 v / 2023 v

* + 1. Point (on a map)
    2. Line (on a map)
    3. Area (on a map)
    4. Photo (With a preference to set the maximum size [MiB] and a list of supported formats)

Upload image here

No File Chosen

Choose File

* + 1. Audio (With a preference to set the maximum size [MiB] and a list of supported formats)

Upload audio recording:

No File Chosen

Choose File

* + 1. Video (With a preference to set the maximum size [MiB] and a list of supported formats)

Upload video here:

No File Chosen

Choose File

* + 1. Note (no response, just a note)

Question: "Can you please provide directions to the nearest hospital?"

Note: "The nearest hospital is located at 123 Main Street, about 2 miles from your current location. You can take the bus number 45, which runs every 15 minutes, and get off at the third stop. From there, it's a 5-minute walk to the hospital. Alternatively, you can take a taxi or use a rideshare app to get there more quickly. If you need immediate medical assistance, please call 911."

* + 1. Barcode / QR Code

Question: "Please scan the barcode or QR code on your boarding pass to check in for your flight."

* + 1. Acknowledgement (text + a checkbox)

Question: "Please enter your full name below and check the box to acknowledge that you have read and understood the terms and conditions."

Text Response: [Text input field(Enter Name)]

Checkbox: I have read and understood the terms and conditions.

Note: "Please enter your full name in the text input field above and check the box to acknowledge that you have read and understood the terms and conditions. Once you have completed both steps, click the 'Submit' button to continue."

* + 1. Rating

Question: "On a scale of 1 to 5, how satisfied were you with our service today?"

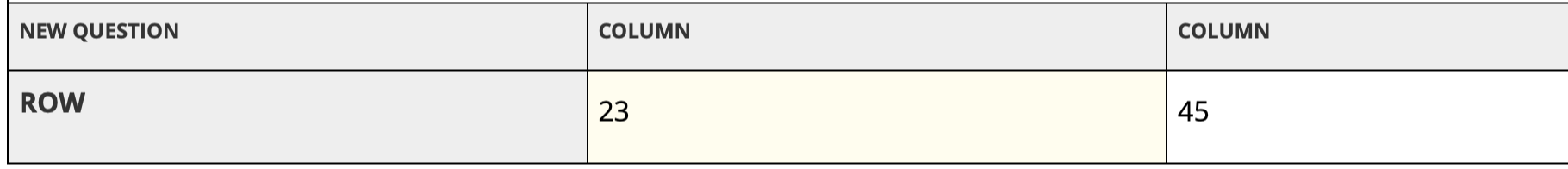
Rating Response: [1] [2] [3] [4] [5]

Note: "Please rate your satisfaction with our service today by clicking on the number that best represents your experience, where 1 is 'Very Dissatisfied' and 5 is 'Very Satisfied'. Your feedback is important to us and will help us improve our service. Thank you for taking the time to provide your rating!"

A close-up of a person's hand

Description automatically generated

* + 1. Question Matrix (response filled in a cell of a table)



Question: "Please provide the following information about each member of your household."

Table:

|  |  |  |
| --- | --- | --- |
| Name | Age | Relationship to Head of Household |
| [Text input] | [Number input] | [Text input] |
| [Text input] | [Number input] | [Text input] |

Note: "Please enter the name, age, and relationship to the head of the household for each member of your household in the table above. You can add additional rows if needed. Once you have completed the table, click the 'Submit' button to continue."

* + 1. Ranking: Ordered from a list of options.

A screenshot of a computer

Description automatically generated

Question: "Please rank the following fruits in order of your preference, with 1 being your most preferred and 5 being your least preferred."

List:

Apples

Bananas

Cherries

Grapes

Oranges

Note: "Please drag and drop the items in the list above to rearrange them in order of your preference, with 1 being your most preferred and 5 being your least preferred. Once you have completed your ranking, click the 'Submit' button to continue."

* + 1. Calculated field (to be auto filled based on a custom logic and variable from some response)

Question 1: "What is your annual income?"

Text Response: [Number input field]

Question 2: "Based on your annual income, you are eligible for a tax deduction of $X. Would you like to claim this deduction?"

Note: "The value of 'X' in the question above is calculated based on the response provided to Question 1. If the annual income entered in Question 1 is greater than $50,000, 'X' is set to $1,000. If the annual income is less than or equal to $50,000, 'X' is set to $2,000. Once you have reviewed the auto-filled value, click the 'Yes' or 'No' button to indicate whether you would like to claim the tax deduction. Thank you!"

* + 1. Hidden (type=”hidden”, value set while building the form)
    2. File Upload

Choose File

No File Chosen

* + 1. Range

A line with a dot in it

Description automatically generated with medium confidence

(Already explained above)

* + 1. Any other response type if needed will be incorporated during the development phase

1. Question bank module should have a feature to group questions in a collection. Examples of collection could be economy, demographics, finance etc.
2. Collection within the question bank can be shared with various users with read / write access to view / add questions.

Here's an example of how collections within a question bank can be shared with various users:

Collection: Economy

Questions:

What is the current GDP growth rate of the United States?

How has the unemployment rate changed in the past year?

What factors contribute to inflation?

What are the pros and cons of a trade deficit?

How do interest rates impact economic growth?

Access:

User 1: Read/Write

User 2: Read

User 3: Read/Write

In this example, the collection named "Economy" contains five questions related to the economy. User 1 and User 3 have read/write access to the collection, meaning they can view the questions. User 2 has read access, meaning they can only view the questions.

1. Every question in the bank will have a unique question owner (a type of user) associated with it.
2. A form builder tool to create an assessment from the question bank or adding the question directly to the form. The form builder should have the following functionalities:
   1. Feature to group a set of questions and set a name to the group

Here's an example of a feature that allows users to group a set of questions and set a name to the group:

Feature: Question Grouping

Group Name: Economic Indicators

Questions in the Group:

What is the current GDP growth rate of the United States?

How has the unemployment rate changed in the past year?

What factors contribute to inflation?

How do interest rates impact economic growth?

In this example, the feature "Question Grouping" allows to create a group of questions related to a specific topic and set a name for the group. In this case, the group is named "Economic Indicators" and contains four questions related to different aspects of the economy, such as GDP growth rate, unemployment rate, inflation, and interest rates.

* 1. Drag and drop UI to order the questions in the form and move them across groups
  2. Feature to copy a question
  3. Save the form as a draft

"Would you like to save your progress and continue later, or submit the form now?"

Options:

A. Save as a Draft

B. Submit Now

In this example, when a user is filling out a form or survey, they are presented with the option to either save their progress as a draft or submit the form immediately. Selecting option A ("Save as a Draft") allows the user to save the form in its current state and return to it later to complete or make edits. This feature is useful for longer forms or surveys that users may not have time to complete in one session, enabling them to continue their work at their convenience.

* 1. User can edit a draft or a published form

Question: "Would you like to edit an existing draft or the published form?"

Options:

A. Edit Draft

B. Edit Published Form

In this example, the user is presented with the option to either edit an existing draft or make changes to the published form. Selecting option A ("Edit Draft") allows the user to access and modify the saved draft of the form. Selecting option B ("Edit Published Form") allows the user to edit the live or published version of the form. This feature is useful for users who need to make updates or corrections to a form after it has been saved as a draft or published, ensuring that the form remains accurate and up-to-date.

* 1. Custom logic to skip one or more questions or a group

Question 1: "Do you currently own a car?"

Options:

A. Yes

B. No

If the user selects option B (No), custom logic can be applied to skip the next question or group of questions related to car ownership and move to a different set of questions.

For example:

Question 2: "What is the make and model of your car?"

Question 3: "How many miles do you drive your car on average each month?"

If the user answered "No" to Question 1, custom logic can be applied to skip Questions 2 and 3 and move directly to Question 4:

Question 4: "Do you use public transportation regularly?"

Options:

A. Yes

B. No

* 1. Custom validation condition for each question. Validations can be set through a UI or added as a script. Please refer to [Response Validation in](https://support.kobotoolbox.org/validation_criteria.html) [KoboToolbox](https://support.kobotoolbox.org/validation_criteria.html).
  2. **User can preview the form before publishing it**
  3. **User can invite people through emails to fill the assessment / form**
  4. Users can set a form layout style. Up to 5 custom form layout designs will be designed and developed along with integrating them in the data collection module.
  5. Users can customise the name of the data point (or column name) for each question or group.
  6. Feature to add media (images, audio or video) along with the text to a question. [Refer to this video](https://support.kobotoolbox.org/_static/files/media/collecting_data.mp4) for details.
  7. Feature to disable a question (“<input disabled>”)
  8. Feature to add metadata to the form like deadline, title, description etc.

1. Feature to add metadata to every question. This includes description (string), data sources (string), reference period (string) and a template for the supporting documents (attachment as a spreadsheet and / or document).
2. Create and implement an efficient workflow for the submission of the supporting documents for each question.
3. Form creator can grant permissions (view / edit forms, view / add / edit / validate / delete submissions) to specific users
4. Feature to connect two or more forms to autofill data in the child form based on a calculated value from a parent form
5. Feature to automatically post submissions to an API endpoint
6. Data preview for submissions
   1. Data preview in a tabular format with edit, show, delete functionalities for every row in the table

Question: "Would you like to preview the form submission data in a tabular format with options to edit, show, or delete each submission?"

Options:

A. Yes

B. No

If the user selects option A (Yes), the form submission data is displayed in a table with columns for Submission ID, Name, Email, Date, and actions to Edit, Show, or Delete each submission. For example:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Submission ID | Name | Email | Date | Edit | Delete |
| 1 | John Doe | john@example.com | 1/1/23 | [Edit] | [Delete] |
| 2 | Mary Johnson | mary@example.com |  | [Edit] | [Delete] |

This feature allows users to easily review and manage form submissions in a structured and organized manner, with options to make changes or remove submissions as needed.

* 1. Preview all media submitted as a response to the assessment

"Would you like to preview all media files submitted as responses to the assessment?"

Options:

A. Yes

B. No

If the user selects option A (Yes), the system displays a gallery or list view of all media files submitted as responses to the assessment. This could include images, videos, audio clips, and other types of media files.

* 1. Preview all GIS data submitted as a response on a map.

1. Form summary to show total submission and number of submissions each day.

"Would you like to view a summary of form submissions?"

Options:

A. Yes

B. No

If the user selects option A (Yes), the form summary is displayed, showing the total number of submissions as well as a breakdown of the number of submissions each day. For example:

Form Summary:

Total Submissions: 150

Submissions on Monday: 25

Submissions on Tuesday: 30

Submissions on Wednesday: 20

Submissions on Thursday: 15

Submissions on Friday: 10

Submissions on Saturday: 5

Submissions on Sunday: 5

1. Feature to add multiple language translations for each string in the form with compatible web font for each language.

Here's an example of a question that allows users to add multiple language translations for each string in a form, along with compatible web fonts for each language:

Question: "Please select the language for the form."

Options:

A. English

B. Spanish

C. French

D. Chinese

In this example, the user is presented with the option to select the language for the form from a list of available translations. Selecting option A ("English") displays the form in English with the appropriate web font. Selecting option B ("Spanish") displays the form in Spanish with a compatible web font, and so on. This feature is useful for users who need to access the form in their preferred language, ensuring that the form is accessible and user-friendly for a diverse audience.