DATA COLLECTION SYSTEM

To design survey development and collection software. The survey development software should be a web application that allows users to create and design a survey blueprint, that can then be used to collect data via a shared link for the created survey. In addition, a companion mobile application is to be developed, which allows users to login and download a survey blueprint that will allow a user to collect data for the specific downloaded survey offline(without an active internet connection). Once the mobile device regains online access it should automatically upload all responses for a given survey to an online database where the data can be compiled and exported from the web application software. Additional specification for both the web application and mobile application is as follows:

WEB APPLICATION

1. Platforms for use
   a. PC
   b. Mobile (Android and iPhone)
   c. Tablets
2. Browser Support
   a. Chrome
   b. Safari
   c. Firefox
   d. Samsung Internet
   e. Edge
3. User Authentication
4. The ability for two users to be in the system at one time
5. Drag and Drop interface for moving questions around
6. The ability to insert and edit a question
7. The ability to manage multiple surveys at the same time

8. Question Formats Required

Basic	Radio Buttons
	Radio Button Grid (Matrix Grid)
	Checkboxes (multiple select)
	Dropdown Menu
	Short Answer Textbox
	Long Answer Textbox
	Date (special format)
Intermediate	Rating (Likert Scale)
	Ranking Grid
	Drag and Drop Ranking
	Checkbox Grid
	Textbox List
	Multimedia response options (videos, audio, images, etc) ● Multiple Select ● Single Select
	Slider ● Ability to label slider ● Set value range ● Set increment value ● Set starting value Slider Settings Left Label Center Label Right Label low mid high Allow values between 0 100 Increment Value 10 Starting Value 0

	Number
	Percentage
	Continuous Sum
Advanced	Slider List
	Dropdown Menu Grid
	Quick Sort
	Conjoint (choice based)

9. Recording of interview for Quality Assurance
10. Integration with applications such as Mail Chimp
11. Export to Excel
12. Visual display of results
13. Capture of IP addresses for online
14. Strong Offline application capability for areas where there is no data or unreliable data

15. Question Features

Validation	Not-required
	Required (cannot move on unless answered)
	Warn respondents if question is left unanswered (Soft-Require)
	Conditionally require this question on previous answers
Logic *should allow for more than one condition or more than one group of conditions*	Only show question based on answers to previous questions or other logic conditions ● is exactly equal to ● is not exactly equal to ● is one of the following answers ● is not one of the following answers ● greater than ● greater than or equal to ● less than ● less than or equal to ● is answered ● is not answered
Layout	Additional Instructional Text
	Option Sorting ● Original ● Randomize ● Alphabetize
	Comments
Piping/Repeat	Allow for piping previous answers "reporting value" into a question
Coding/	Allows for coding of text

Reporting Values	Allows for reporting value to be changed for download and creation of Survey Legend Document

16. General Survey Features
    a. Dashboard for statistics for a selected survey
    b. Ability to Randomise Questions
    c. Geotagging
    d. Quota Control
        i. Overall Quota - absolute max number of responses
        ii. Logic Quota - limited set of responses for persons who match a specific set of logic
        iii. Distributed logic Quota - collect an even distribution of responses across a wide set of conditions
    e. Status Bar - showing survey progress, should be optional if to show or not.
    f. View Bar - ability to skip to various pages or parts in the survey while conducting survey - should be feature that be enabled and disabled
    g. Survey Links - Option to create survey links including
        i. Test responses that are tagged as test and can be bulk deleted
        ii. Option to create different tracking links for a survey
    h. Option to close survey - stop accepting responses.

17. Data syncing and upload feature
    a. Automatically sync and upload data collected from online mode

18. Export Data and Statistics

Format	SPSS (.sav)
	Excel (.xls, xlsx)
	Delimited ASCII (.csv, .txt)
Ability to Upload to	Google Drive
	Dropbox
Editing	Ability to edit data before downloading preferably view data

19. Allows the following on from the back end of the system:
    a. Listening feature for each interview
    b. A Supervision mode/feature allowing the Supervisor to listen to and rate interviews

INTEGRATIONS

1. Google Sheets - Push data from survey into a google Spreadsheet
2. Microsoft Power BI - Data connector- push data
3. SPSS - Ability to export data to SPSS and automatically setup and import variable types, titles and value labels
4. Tableau

MOBILE APPLICATION

1. User authentication
    a. Used to provide unauthorized access to projects and log the enumerator who conducted a survey. This should tell which user interviewed which respondent
2. Survey blueprint download
3. Data Collection
    a. A user should be able to login and download a survey blueprint then collect responses for that survey
4. Data syncing and upload feature
    a. Automatically sync and upload data collected from offline mode
5. Recording
    a. recording during survey, ability to select questions to be recorded
6. Geotagging
    a. Automatically record location of a collected response
    b. Statistics for data by location

CUSTOMIZATION

1. Ability to brand survey style
2. Ability to customize survey domain address when sharing

BACK END USER INTERFACE *image below

1. Overview of all surveys
    ○ Summaries for each

2. Search feature
3. Sort Feature
   ○ Name
   ○ Date edited
   ○ Staus (Closed, active, new)
   ○ Date of last response
   ○ Date created
4. Filter feature
5. Create folders for surveys

BACK END ACCESS

1. Listening feature for each interview
2. A Supervision mode/feature allowing the Supervisor to listen to and rate interviews

PREFERRED SOFTWARE

- Web Application
  - Angular 10
  - Firebase- Firestore, Google Storage
- Mobile Application
  - Flutter

FUTURE REQUIREMENTS

Data Analysis

- Text analysis (ability to create tags to quickly group responses into categories)
- Sentiment analysis
- Creation of graphs and charts that can be filtered or grouped by various criteria including question responses, survey status.

QUESTION TYPE AND FEATURE SAMPLES

http://surveys.sacodaserv.com/s3/Developer-Sample-Question-Types

SHORTCOMINGS OF EXISTING APPLICATION

https://drive.google.com/file/d/1XME_WcX0YMFNY0-HOuNK2rf_eZPNk-BC/view?usp=sharing
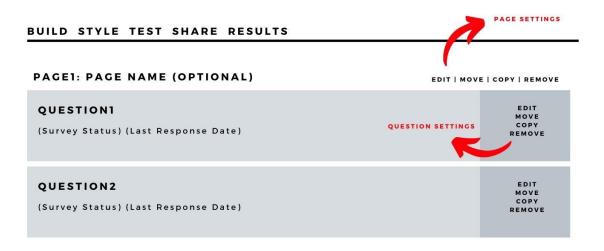
- Home page Interface Example

INTERFACE EXAMPLE

SORT BY ❤   FILTER ❤   🔍

CREATE SURVEY ❯

ALL SURVEYS **(XXX)**

Recent **(xx)**

Folders

📁 **NAME** **(XXX)**

SURVEY NAME XXXXX	# COMPLETED RESPONSES	# OF QUESTIONS
(Survey Status) (Last Response Date)		
QUICK ACTIONS (Build| Results)		

SURVEY NAME XXXXX	# COMPLETED RESPONSES	# OF QUESTIONS
(Survey Status) (Last Response Date)		
QUICK ACTIONS (Build| Results)		

SURVEY NAME XXXXX	# COMPLETED RESPONSES	# OF QUESTIONS
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QUICK ACTIONS (Build| Results)		

SURVEY NAME XXXXX	# COMPLETED RESPONSES	# OF QUESTIONS
(Survey Status) (Last Response Date)		
QUICK ACTIONS (Build| Results)		

- Survey Build Interface Example

SURVEY BUILD EXAMPLE

BUILD STYLE TEST SHARE RESULTS

PAGE SETTINGS

PAGE1: PAGE NAME (OPTIONAL)

EDIT | MOVE | COPY | REMOVE

QUESTION1

(Survey Status) (Last Response Date)

QUESTION SETTINGS

EDIT
MOVE
COPY
REMOVE

QUESTION2

(Survey Status) (Last Response Date)

EDIT
MOVE
COPY
REMOVE

ADD PAGE | ADD SKIP/ DISQUALIFY LOGIC

PAGE2: PAGE NAME (OPTIONAL)

MENU APPEARS ON HOVER BETWEEN QUESTIONS

QUESTION 3

(Survey Status) (Last Response Date)

EDIT
MOVE
COPY
REMOVE

INSERT: QUESTION | ACTION | PAGE BREAK | TEXT/MEDIA

QUESTION4

(Survey Status) (Last Response Date)

EDIT
MOVE
COPY
REMOVE