Instructions

Your task is to use the requirements and specifications in this document as the basis for creating a fully functioning FileMaker app. The purpose is for you to have an opportunity to hone your FileMaker development skills using real-world requirements. There is no “correct” answer or solution; be creative and enjoy the process!

Some additional instructions:

- Create an ER Diagram of your solution
- Add whatever additional tables and fields you think would be useful to accomplish the tasks
- Document any assumptions you make about requirements
- Make up a critical mass of sample data so that reports can be run for any date range in 2019

AHY Requirements

AHY (Alliance for Homeless Youth) offers direct services to homeless youth in the Anytown area via a networked collection of programs, including an emergency shelter, a drop-in SafePlace center, training programs, outreach, and more. AHY’s programs stabilize homeless teens’ lives, meeting their immediate needs and providing a safe, supportive environment and a path to self-sufficiency.

Their business need appropriate for the 42U programming challenge is to digitize the most critical data collected about each client, with the goals of supporting searchability, of enabling visibility of change over time for the individual client, and of enabling visibility into data aggregated AHY-wide by certain demographic variables (race, gender, LGBT status, age, etc). This critical data is in the intake and exit interview forms, and the Life Skills Assessments. Life Skills Assessments are done with clients during intake, every 3 months while in the program, and at exit.

Currently these forms are completed on paper, then transcribed into spreadsheets (one per youth), and also transcribed into online systems such as government-mandated central databases. A FileMaker database holding this data would revolutionize AHY's ability to quickly evaluate change over time in order to make more informed decisions about clients, programming, and individual/group trends.

Intake forms - These are completed during the initial engagement with the client, about 30% mobile in the field and 70% at the intake staffer's desk in-office. An intake staffer interviews the youth, collecting demographic info, name, pronoun, etc. along with personal history, where they slept last night, and other information. They also capture documents and files, such as photos, and copies of ID or birth certificates.

Any time that person comes in or receives services again, after their initial intake, a staffer will record case notes containing details of those services, client's status, etc.

The interviews contain quite a bit of information, so the developer should give thought to how to organize and present this data in a manner that facilitates easy navigation and data entry.

Life Skills Assessment - A staff member completes this form with the client and every three months for the duration of AHY's relationship with the client. They capture the youth's scores, measuring progress as the client progresses through the program.

Over time, this data set functions along the lines of an Electronic Medical Record for each client, capturing all activity, placements, updates, and so forth.

Exit form - This interview poses the same questions as the intake form, but is performed when the youth graduates from or decides to leave the program.

6-10 users in total. Most staff are licensed social workers (LicSW). Caseworkers use mostly Windows; administrators use Macs. AHY plans to get donors to provide iPad tablets with Bluetooth keyboard cases.

Client

A Client record represents a specific youth who has come to AHY for assistance. It is possible that a particular youth might go through the AHY interview/programs more than once, and the Client record exists to organize all their materials in a single cluster. Each youth may give varying answers to identification questions at different times, so often AHY staff may have to search creatively in the Interview records to find a previous interaction with a person. They may also need to merge Interviews and Case Notes from two Client records into one Client, should they discover after the fact that a redundancy was inadvertently created.

- ID
- NameLast
- NameFirst
- NameMiddle
- NameFirstAKA
- NameLastAKA
- DOB

- SSN
- Photo

Interview

AHY staff will do a detailed interview of each Client when they begin the program; an Interview record stores all these answers along with a collection of signatures and releases and surveys. AHY staff will also do a similar interview of each Client when they exit the program, with a slightly different collection of signatures and releases and surveys. The information in Interview records is the primary source of demographic information and longitudinal evaluation of outcomes for each Client.

- ID
- ClientID
- InterviewType (choices: Intake or Exit)
- InterviewDate
- InterviewTime
- InterviewedBy
- InterviewLocation (choices: Terrible Herbst Store, Drop In Center, High School, Other)
- InterviewLocation_THStoreNumber
- InterviewLocation_THStoreLocation
- InterviewLocation_THStoreClerkName
- InterviewLocation_Description
- AHYIntakeBefore (choices: Y or N or Other)
- AHYIntakeBefore_OtherDescription
- NameLast - autoenter from Client, editable on Interview; store onto Client if changed on Interview
- NameFirst - autoenter from Client, editable on Interview; store onto Client if changed on Interview
- NameMiddle - autoenter from Client, editable on Interview; store onto Client if changed on Interview
- NameFirstAKA - autoenter from Client, editable on Interview; store onto Client if changed on Interview
- NameLastAKA - autoenter from Client, editable on Interview; store onto Client if changed on Interview
- DOB - autoenter from Client, editable on Interview; store onto Client if changed on Interview
- PlaceOfBirth
- SSN - autoenter from Client, editable on Interview; store onto Client if changed on Interview
- USCitizen (choices: Y or N)
- Weight

- HaveDriversLicense (checkbox)
- HaveStateID (checkbox)
- HaveJob (checkbox)
- HaveResume (checkbox)
- HaveGreenCardOrVisa (checkbox)
- HaveHealthCard (checkbox)
- HaveSchoolID (checkbox)
- HaveSavingsAccount (checkbox)
- HaveCheckingAccount (checkbox)
- HaveOtherID (checkbox)
- Gender (choices: Male, Female, NB, TG/MTF, TG/FTM, Refused, Doesn't know, Other)
- Gender_OtherDescription
- EyeColor (choices: Blue, Brown, Green, Hazel, Other)
- EyeColor_OtherDescription
- Race (choices: White, Black or African American, Asian, American Indian or Alaskan Native, Native Hawaiian or Other Pacific Islander, Black/African American and Asian, Black/African American and American Indian/Alaskan Native, Black/African American and White, White and American Indian/Alaskan Native, White and Asian, White and Black/African American and Asian, White and Black/African American and American Indian, Other Multi-Racial, Doesn't know, Refused, Other)
- Race_OtherDescription
- Ethnicity (choices: Non-Hispanic/Non-Latino, Hispanic/Latino, Doesn't know, Refused)
- SexualOrientation (choices: Straight, Gay, Lesbian, Bisexual, Questioning, Refused, Unknown, Other)
- SexualOrientation_OtherDescription
- PrimaryLanguage (choices: English, Spanish, Other)
- PrimaryLanguage_OtherDescription
- EnglishFluency (choices: Y, N, Refused, Unknown)
- VeteranStatus (choices: Y, N, Doesn't know, Refused)
- MaritalStatus (choices: Single (Never Married), Single (Divorced), Married, Separated/Trial Separation, Illness, Widowed/Death, Living with Partner/New Live-In Partner, Other, Doesn't know, Refused)
- ParentalStatus (choices: Not Parent (No Children), Single Custodial Parent of Dependent Children, Parent of Non-Dependent Children, Non-Custodial Parent of Dependent Children, Parent in Two Parent Family with Dependent Children, Doesn't know, Refused)
- ReasonCameToSafePlace (multi-choice, check all that apply):
    - Immediate safety
    - Homeless
    - Runaway
    - Family issues
    - Locked out
    - Stranded here
    - Physical neglect

- Physical abuse
    - Educational neglect
    - Emotional abuse
    - Suicidal (in or near field label, also include text "1-800-SUICIDE (1-800-784-2433)")
        - If Yes:
            - Intent (choices: Y or N)
            - Access (choices: Y or N)
            - Plan (choices: Y or N)
- ReasonCameToSafePlace_OtherDescription
- HousingStatusAtEntry (choices: Category 1 - Homeless, Category 2 - At imminent risk of losing housing, Category 3 - Homeless only under other federal statutes, Category 4 - Fleeing domestic violence, Stably housed, At-risk of homelessness, Doesn't know, Refused)
- ResidencePriorToEntry (choices:)
    - Emergency Shelter
    - Transitional housing for homeless persons
    - Permanent housing for formerly homeless persons
    - Psychiatric hospital or other psychiatric facility
    - Substance abuse treatment facility or detox center
    - Hospital (non-psychiatric)
    - Jail, prison, or juvenile detention center
    - Staying or living in a family member's room, apartment, or house Staying or living in a friend's room, apartment, or house
    - Hotel or motel paid for without emergency shelter voucher Foster care home or foster care group home
    - Place not meant for habitation
    - Other
    - Safe Haven
    - Rental by client
    - Owned by client
    - Long-term care facility or nursing home
    - Residential project or halfway house with no homeless criteria
    - Other
- ResidencePriorToEntry_OtherDescription
- LengthOfStayPriorResidence (choices:)
    - One day or less
    - Two days to one week
    - More than one week, but less than one month One to three months
    - More than three months, but less than one year One year or longer
    - Doesn't know
    - Refused
- ZipCodeOfLastAddress

- QualityOfZipCode (choices: Full, Partial, Doesn't know, Refused)
- WhereHeardAboutSafePlaceAHY
- DestinationAfterLeaving
- FamilyReunificationHelpfulToday (choices: Yes, Yes but not at this time/not ready yet, No, Refused, Unknown)
- FamilyReunification_Notes
- ClientContact_NotProvided (checkbox)
- ClientContact_NotProvided_Reason
- ClientContact_CurrentAddress
- ClientContact_LastAddress
- ClientContact_Phone
- ClientContact_PhoneAlternate
- ClientContact_Email
- EmergencyContact_NotProvided (checkbox)
- EmergencyContact_NotProvided_Reason
- EmergencyContact_Name
- EmergencyContact_RelationshipToClient
- EmergencyContact_Address
- EmergencyContact_Phone
- EmergencyContact_PhoneAlternate
- EmergencyContact_Email
- ParentGuardian1Contact_NotProvided (checkbox)
- ParentGuardian1Contact_NotProvided_Reason
- ParentGuardian1Contact_Name
- ParentGuardian1Contact_RelationshipToClient
- ParentGuardian1Contact_Address
- ParentGuardian1Contact_Phone ParentGuardian1Contact_PhoneAlternate
- ParentGuardian1Contact_Email
- ClientDisposition (choices: AHY Emergency Shelter, Taken to another shelter, Referred to another agency, Went to relatives, Went to friends, Returned home, Other)
- ClientDisposition_Description
- IncreasedFeelingOfSafety (choices: Yes or No)
- IncreasedFeelingOfSafety_Explanation
- NotesAndSummary

A sample Interview form is attached. Note that not every question or field on the sample is needed in the current set of requirements.

Life Skills Assessment

A Life Skills Assessment record holds 9 averages, which are derived from a longer set of responses collected by an AHY staffer and stored in a separate tool. The changes in these averages over time gives a longitudinal view of improvements in the Client's situation and skills. For these averages, the user will need to enter a number between 0 and 10, with two decimals of accuracy.

- ID
- ClientID
- AssessmentDate
- OverallAverage
- PermanencyAverage
- DailyLivingAverage
- SelfCareAverage
- RelationshipAndCommunicationAverage
- HouseAndMoneyManagementAverage
- WorkAndStudyLifeAverage
- CareerAndEducationPlanningAverage
- LookingForwardAverage

Case Note

A Case Note record holds information collected by an AHY staffer during periodic meetings with a Client while they are going through the program(s).

- ID
- ClientID
- Type (choices: Emergency Shelter, Drop In Center)
- DateCreated
- DateModified
- CreatedBy
- CaseManager / Staff Name
- ClientDescription
- ClientHealth
- ClientHistory
- ClientPlanOfAction
- TimestampEnteredShelter (only for Emergency Shelter type)
- TimestampExitedShelter (only for Emergency Shelter type)
- Notes

Referrals

An AHY staffer may offer the Client referrals to different types of complimentary resources during a meeting. The staffer should be able to log these referrals from a Case Note. The Client may receive multiple referrals in one meeting. Each Referral below consists of checkbox + text field for details:

Case Management:

- Shelter Placement
- Family Reunification Ticket Paid
- Holiday Services: Angel Tree
- ID Assistance: Birth Certificate
- ID Assistance: Health Card
- ID Assistance: DMV Instruction Permit
- ID Assistance: Drivers' License
- ID Assistance: State ID
- ID Assistance: Passport
- ID Assistance: Other
- Picked Up Mail
- Pantry Accessed: Clothing Closet
- Pantry Accessed: Food Items
- Pantry Accessed: Hygiene Products
- Pantry Accessed: School Supplies
- Voicemail Service Provided
- Safe Place Pick-Up: DIC Walk-In
- Safe Place Pick-Up: Public Bus To Safe Place Location
- Safe Place Pick-Up: Other
- Shower Room Accessed
- Telephone Access Provided
- Aftercare Follow-up Program Enrolled
- Aftercare Follow-up Program Declined
- Life Skills Assessment Completed
- Case Manager Services
- Family Reunification Ticket Paid
- Moving Assistance: Move-in Kit
- Moving Assistance: Move-out Kit
- Transitional Living Plan: Initial Monthly Case Plan Completed
- Transitional Living Plan: Monthly Case Plan Update Meeting/Reviewed
- Transitional Living Plan: Monthly Case Plan - Goal Achieved

Transportation:

- 24 Hour Bus Pass
- Full rate 30 Day Bus Pass
- Full Rate 5 Day Bus Pass
- Reduced Rate 30 Day Bus Pass
- Reduced Rate 5 Day Bus Pass

Financial:

- Phone Card Issued
- Goodwill Gift Card
- Payless Shoes Gift Card
- Regal Movies Gift Card
- Target Gift Card
- TJMaxx Gift Card
- Visa Gift Card
- Wal-Mart Gift Card
- Walgreens Gift Card

Food:

- Miscellaneous (Other) Gift Card
- Weekly Grocery Card Issued
- Weekly Grocery Card Issued: EFSP Kroger
- Weekly Grocery Card Issued: EFSP Safeway
- Food Voucher: Baja Fresh
- Food Voucher: Burger King
- Food Voucher: Carl's Jr.
- Food Voucher: Chipotle
- Food Voucher: Del Taco
- Food Voucher: Einstein Bagels
- Food Voucher: In-N-Out Burger
- Food Voucher: Jack In The Box
- Food Voucher: Kentucky Fried Chicken Food Voucher: Long John Silver
- Food Voucher: McDonald's
- Food Voucher: Panda Express
- Food Voucher: Pita Pit
- Food Voucher: Starbucks
- Food Voucher: Subway
- Food Voucher: Wendy's
- Food Voucher: Miscellaneous (Other) Weekly Grocery Card Issued

Housing:

- Transitional Housing
- QD Expanded Drug Test Completed
- QD Regular Drug Test Completed

Education:

- Earned High School/Adult Education/General Equivalency Diploma Educational Fee Paid
- FAFSA Assistance

- Referral Provided
- Resources/Information Provided
- School Application/Enrollment Assistance
- Tutoring Services Accessed
- Financial Literacy: Credit Check Monitoring
- Financial Literacy: Credit Restoration Plan
- Financial Literacy: Credit Score Orientation
- Financial Literacy: Introduction to Building Credit
- Computer and Internet Access

Employment:

- Application Assistance Employment Fee Paid
- Job Search Assistance
- Referral Provided
- Resources/Information Provided
- Resume Assistance

Life Skills:

- Health & Wellness Class
- EFJP Financial Literacy Class
- EFJP Job Preparedness Class
- EFJP Educational Class
- Other Topics

Health Care:

- Dental Exam Appointment
- Eye Exam Appointment
- General Check-up Appointment Medical Fee Paid
- Other Medical Appointment
- Free Haircut Service
- Laundry Service
- Pregnancy Test Provided

Mental Health:

- Individual Therapy Session
- Mental Health Assessment Completed

BONUS CHALLENGE: Allow administrative users to easily add or remove referral items and types of items.

File Attachment

A File Attachment is a file linked to a particular Client. It might be a scan of a photo ID, or it might be a PDF printout of one of the releases associated with an Interview, or some other type of relevant file.

- ID
- ClientID
- container to hold file attachment/reference
- Type (choices:)
    - Photo
    - Identifying Document HMIS consent form
    - Release of Information
    - Client Survey
    - DIC Guidelines Acknowledgement Aftercare Guidelines
    - Exit Transition Plan
    - Client Letter
    - Metro Confidential Report
    - Other
- DateCreated

User Stories

Data Collection

Staffer Creates Client Person

This happens as part of the Intake Interview process, rather than directly.

Direct editing of Client record is allowed, but creation is via Interview creation (see Interview user stories for details). First Name and Last Name both required, but will be set via data entry on the Interview.

Date of Birth is required, but will be set via data entry on the Interview.

Staffer Does Intake Interview (and creates Client Person if needed)

Performed on laptop or iPad; laptop will make typing easier but iPad supports digital signature capture and is preferred. Wi-fi or cellular connectivity is assumed. Design layout optimized for iPad.

This happens in office and in the field – at a school, on the street, in a government office or another provider's office. Staffer interviews a client person and records their answers in the form.

It is possible for Clients to come through Intake more than once. Staffer will search for the person in Interviews table.

- Button on Interview detail screen to make new Interview for same Client. If Staffer finds a matching Interview, they'll use this method.
- Button on Interview list screen to make new Client record and new Interview record related to it. If Staffer finds no matching Interview, they'll use this method.

For the Limits to Confidentiality notice at the start of the Intake form, staffer will pass the iPad to client person to have them initial to acknowledge.

If laptop is used instead of iPad, print the form so the staffer and client can complete the signature on paper. (See Print Interview Body user story).

Client person returns iPad to staffer. Staffer then proceeds to fill out fields on Interview.

For client name and other fields needed on Client record, set these to the values entered on the Interview.

If values inherited on new Interview for same Client are then changed on Interview, store the new values back onto the Client record

Some of the fields on this form are staffer-use, so iPad will be handed back and forth appropriately.

Staffer Does Exit Interview

Performed on laptop or iPad; laptop will make typing easier but iPad supports digital signature capture and is preferred. Wi-fi or cellular connectivity is assumed. Design layout optimized for iPad.

This happens in office and in the field – at a school, on the street, in a government office or another provider's office. Staffer interviews a client person and records their answers in the form.

It is possible for Clients to have multiple interview records, having come through Intake and/or Exit more than once. Staffer will search for the person in Interviews table.

Create a button on the Interview detail screen to make Exit-type Interview for same Client.

For the Limits to Confidentiality notice at the start of the Exit form, staffer will pass the iPad to client person to have them initial to acknowledge.

If laptop is used instead of iPad, print the form so the staffer and client can complete the signature on paper. (See Print Interview Body user story).

Client person returns iPad to staffer. Staffer then proceeds to fill out fields on Interview.

For client name and other fields needed on Client record, set these to the values entered on the Interview.

If values inherited on new Interview for same Client are then changed on Interview, store the new values back onto the Client record

Some of the fields on this form are staffer-use, so iPad will be handed back and forth appropriately.

Staffer Prints Interview Body Contents Only (for Intake and Exit types)

Print just the interview body section; format of the Interview body section may be optimized however you think appropriate, though paper sample is available to view current layout format.

Staffer Enters Life Skills Assessment

Assessments happen every three months after the date of Intake Interview.
Primary data entry for a Life Skills Assessment is done in an external system. That external system provides 9 figures, which are average scores in each of 9 sections. Each figure is a number between 0 and 10, with two decimals of accuracy. The staffer records those 9 figures into the FileMaker system.
All 9 figures are required.
Assessment Date is required.

BONUS CHALLENGE: Prompt the staffer to conduct a Life Skills Assessment if the client's last Life Skills Assessment occurred more than 90 days ago. Consider using a conditionally visible message on the Case Note layout for this.

Staffer Enters Case Note

At any meeting, regardless of whether an Intake or Exit Interview was conducted, a staffer meets with client person and records information. Date is required and should default to current date. Time is required and should default to current time. Case Manager / Staffer is required and should default to current user. Type is required.

Notes field is required to be non-empty.

Staffer Attaches File to Client Person

Files may be any file type.

Type field is required (helps to identify the file's contents, i.e. Identifying Document, Photo, etc.)

Staffer Deletes Attached File

Include “are-you-sure” dialog with Yes/No choice.

Staffer Deletes Case Note

Include “are-you-sure” dialog with Yes/No choice.

Staffer Deletes Life Skills Assessment

Include “are-you-sure” dialog with Yes/No choice.

Only the creator of the Life Skills Assessment record or an Administrator can delete.

Staffer Deletes Interview

Include “are-you-sure” dialog with Yes/No choice.

Only the creator of the Interview record or an Administrator can delete.

Staffer Deletes Client Person

Include “are-you-sure” dialog with Yes/No choice.

Only the creator of the Client Person record or an Administrator can delete.

Deletion is not allowed if the Client Person has any related:

- Interviews
- Case Notes
- Life Skills Assessments
- File Attachments

Staffer Merges Materials for Two Clients Into One

When it is discovered that the same person is represented by two different Client records, a staffer will need to combine the materials into a single Client.

Staffer decides which Client should be kept.

Move all Interviews, Life Skills Assessments, Client Notes, and File Attachments from the unwanted Client record over to the Client record being kept, then delete the unwanted Client record.

Searching & Analysis

Staffer Searches for Interviews

Ad hoc searches for Interviews meeting various criteria, such as "interviews in June 2016 where person identified LGTBQ"

Should be able to specify whether a search is targeting Intake Interview only, Exit Interview only, or either (by including a search criterion in Interview Type field or not)

Search result Interview list should include:

- Client Name
- Interview Date
- Interview Type
- Age
- Gender
- Sexuality
- Ethnicity
- Entry Date (date of earliest Intake-type Interview for this Client)
- Time since last Case Note

Staffer Searches for Client Persons

Ad hoc searches for Client Persons meeting various criteria, which will include attributes found on the related Interviews.

Note: Because most interesting fields are in Interview records, most searches should be done in Interview table rather than Client table.

Search criteria may need to include Case Note attributes, Life Skills Assessment attributes, and/or File Attachment attributes. Consider whether a custom search dialog may be needed to support searching across these multiple related records for a Client.

Search result Client list should include:

- NameLast
- NameFirst
- NameMiddle
- NameFirstAKA

- NameLastAKA
- DOB
- SSN
- Entry Date (date of earliest Intake-type Interview for this Client)
- Exit Date (date of Exit-type Interview for this Client, if any)
- Number of Interviews
- Number of Case Notes
- Number of Casey Assessments
- Number of File Attachments

Staffer Reviews Life Skills Assessment History for a Client Person

Life Skills Assessment consists of 9 numbers. Create a report so Staffer can see the sets of those 9 numbers and how they change over time for a given client.

Staffer Runs Intake Report

Report is based on the set of Intake Interviews made within a given time period. Allow a user-specified date range, so the report could be used for monthly reports, or for annual or ad-hoc date ranges.

Sort Interviews by Interview Date ascending.

For each Interview, display:

- Interview Date
- Interview Location
- Gender
- Age
- AHYIntakeBefore
- DisablingCondition
- ResidencePriorToEntry (may need encoding due to space constraints; see sample)
- LengthOfStayPriorResidence
- ZipCodeOfLastAddress
- VeteranStatus
- ClientDisposition
- ReasonCameToSafePlace

In a separate section or sections, generate subtotals for how many Interviews in the found set broken out by:

- Race
- SexualOrientation

- ReasonCameToSafePlace
- Age grouping: Under 18, 18+
- ClientDisposition

In a separate section or sections, generate totals for how many Interviews in the found set were: AHYIntakeBefore = No (ie, how many new intakes)

BONUS CHALLENGE: Use a Web viewer and Javascript to display the report data in a dynamic chart.

Security

System should have two levels of security for users: Staffer and Administrator. Most actions described above can be completed by any logged-in user, but some functionality (such as Deleting and setting up Referrals) has security restrictions that differ by privilege level.