MakeSafe

Developing a Mobile Application to Assist Probationers with Better Decision Making

User Manual

V3.1

COMPUTER SCIENCE DEPARTMENT

TEXAS CHRISTIAN UNIVERSITY

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Revision Signatures

Sign below if you a) have read the entire document b) found the information within to be accurate and c) are certain the document is free of grammatical and spelling errors.

Name	Signature	Date
Marcus Beal		
Matt Butz		
David James		
Zack Morris		

Revision History

Version	General Description of Changes	Date
V1.0	Initial Draft	2/27/15
V2.0	First Publication	4/20/15
V3.0	Initial Final	4/23/15
V3.1	Final Revisions	5/5/15

Table of Contents

1 Introduction

1.1 Purpose

This document provides an explanation of how the user will interact with StaySafe and KeepSafe. Included are instructions on how to begin using the StaySafe and KeepSafe systems and explanations of the components required for the systems to operate correctly.

1.2 Overview

Section 2 – Overall Descriptions: Overview of the project

Section 3 – System Components: Components of the system

Section 4 – StaySafe Application Instructions: Instructions for installing StaySafe

Section 5 – KeepSafe Application Instructions: Instructions for installing KeepSafe

Section 6 – CSV File Creation and Access Import: Instructions on how to combine the data into one file

Section 7 – Glossary of Terms: Terms used throughout the document

2 Overall Descriptions

2.1 Product Perspective

The MakeSafe project developed the StaySafe application. Major objectives of the project included developing the StaySafe application, saving research data (e.g., user selections, usage statistics, and user survey responses), and creating the version-publishing application. The KeepSafe software tool provides researchers with sustainability, a means of publishing future versions of the application without further developer involvement.

There are three major pieces to the project. For point of clarification they are:

- MakeSafe – The name of the overall project.
- StaySafe – The application for android developed by the MakeSafe Team.
- KeepSafe – A stand-alone Java application used to edit dynamic content.

Tablet application:
StaySafe is the tablet application for Android that provides a simple, intuitive, interface for a population with either limited education or limited computer literacy. There will be twelve sessions lasting approximately 10-15 minutes each. The sessions are divided into three distinct templates each of which has a similar structure. The first session is an initial demonstration followed by eight WORK-IT sessions and three participant choice. Further information is depicted in section 3.2 of this document. The eight WORK-IT sessions, while following a standard template, will differ in terms of text, audio, and video content.

Research Assistant laptop:
The Research Assistant will have a Windows or Mac based laptop to serve as a mechanism to administer, manage, and track the completed application sessions. Session interaction data will be downloaded from the tablet to the laptop. The data will be added to a controlled database by the IBR staff for subsequent analysis.

KeepSafe:
KeepSafe is a Java application that can run on any windows based laptop running Java version 8. KeepSafe allows for the dynamic content in the StaySafe application to be updated. KeepSafe outputs a JSON file which can be read by the StaySafe application.
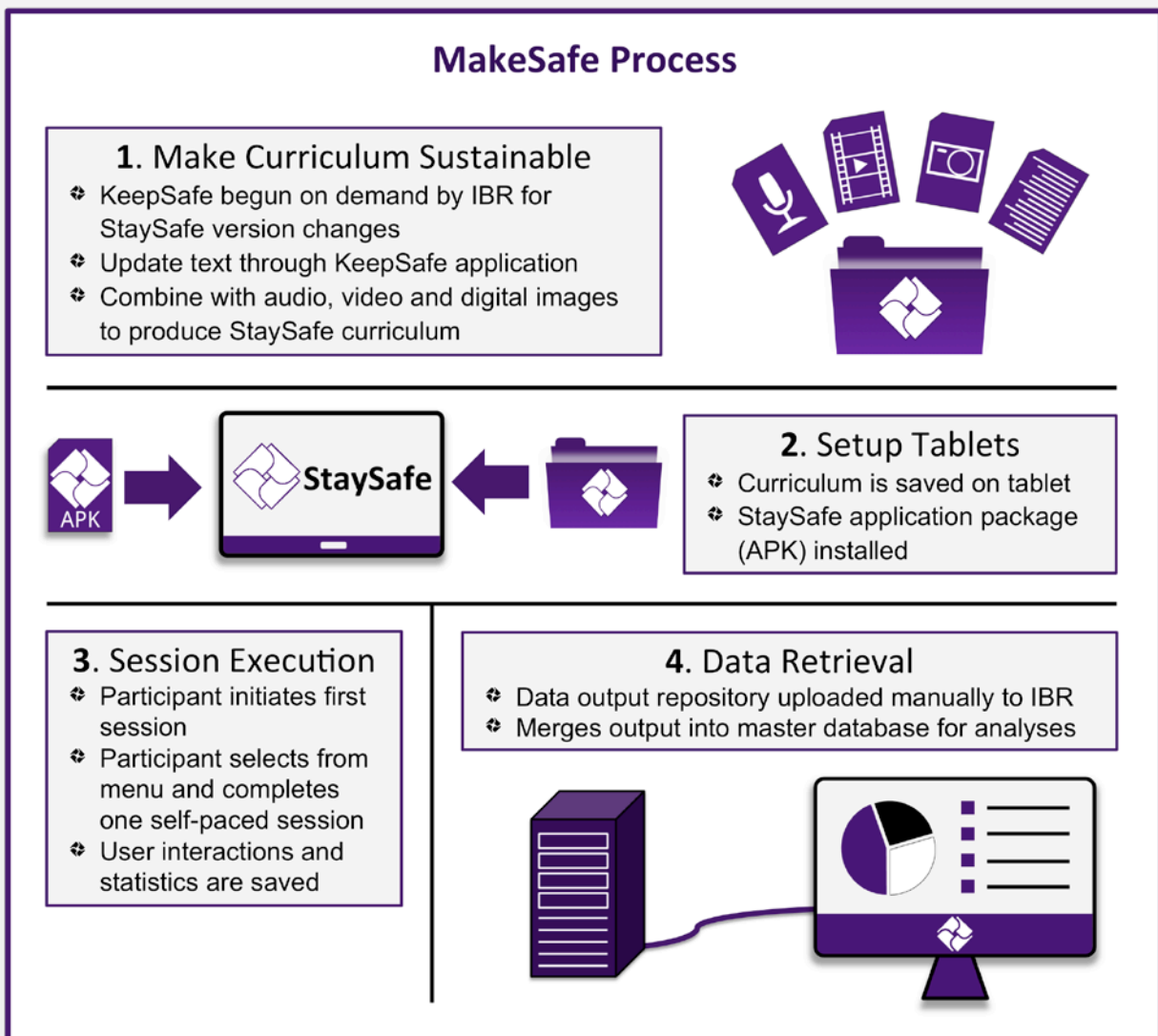
3 System Components

3.1 Environment

StaySafe requires the following operating environment:

- KeepSafe v3.0
- StaySafe v4.5
- Computer with Java version 8 or higher installed
- Samsung Tab S

3.2 System Overview

4 StaySafe Application Installation

4.1 Desktop StaySafe Step-by-Step

Downloading Data and Application for StaySafe

From a Windows/Mac machine:
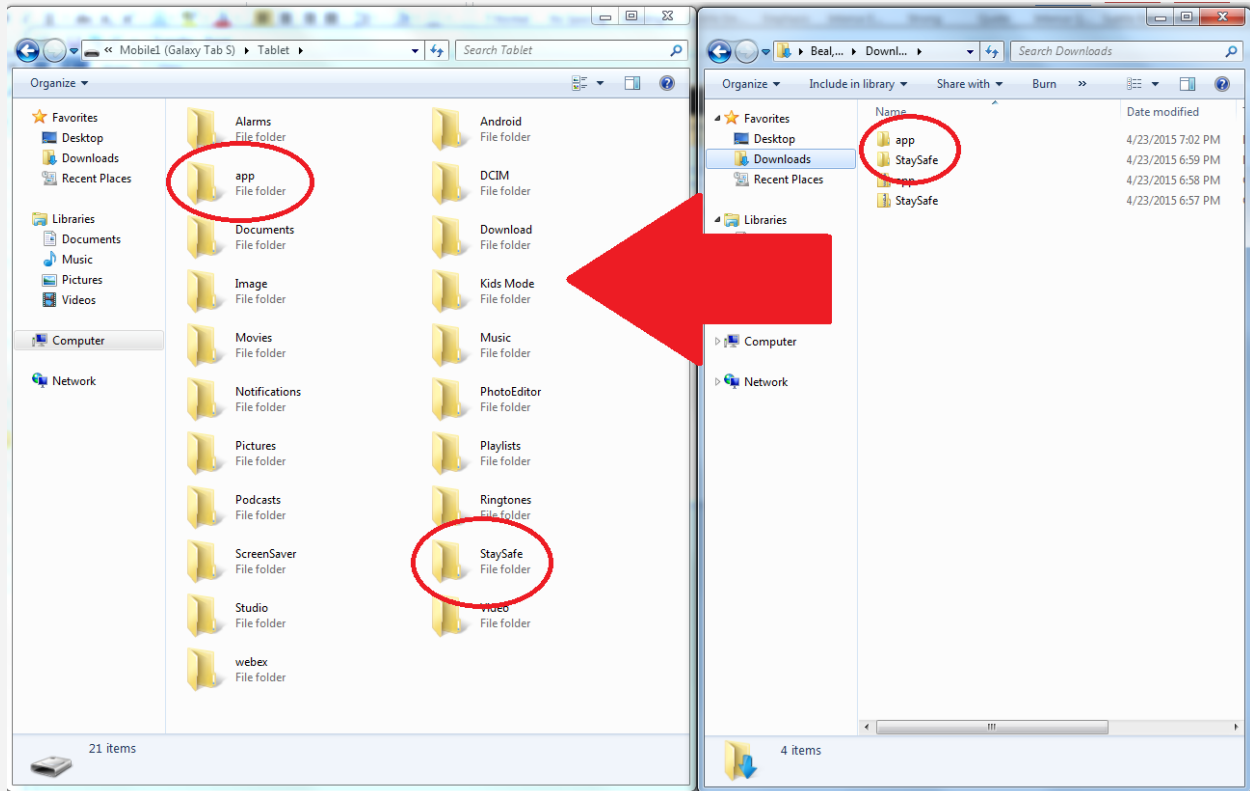**Step 1:** To begin, navigate to the website: brazos.cs.tcu.edu/1415MakeSafe or reference project DVD.
- Navigate to the resources tab and download the Data and the App by clicking the links.
- *Once you have downloaded the files, be sure to unzip them.*
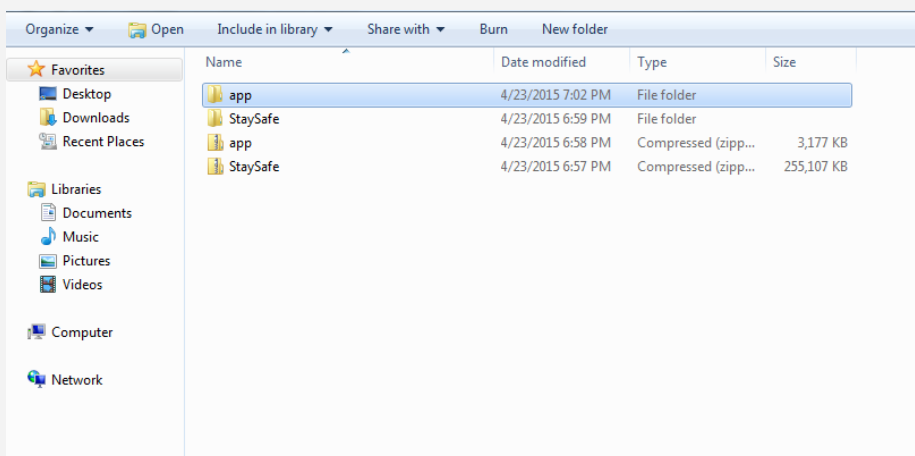
STEP 2: Connect a USB cable from the tablet to the desktop/laptop.
- If you are using a MAC be sure to have Android file transfer installed.

STEP 3: With the unzipped files, drag the StaySafe and App folders into the root directory of the device called "Device Storage."

STEP 5: To install the application once the files have been dragged onto the tablet, tap on the "StaySafe.apk" file.
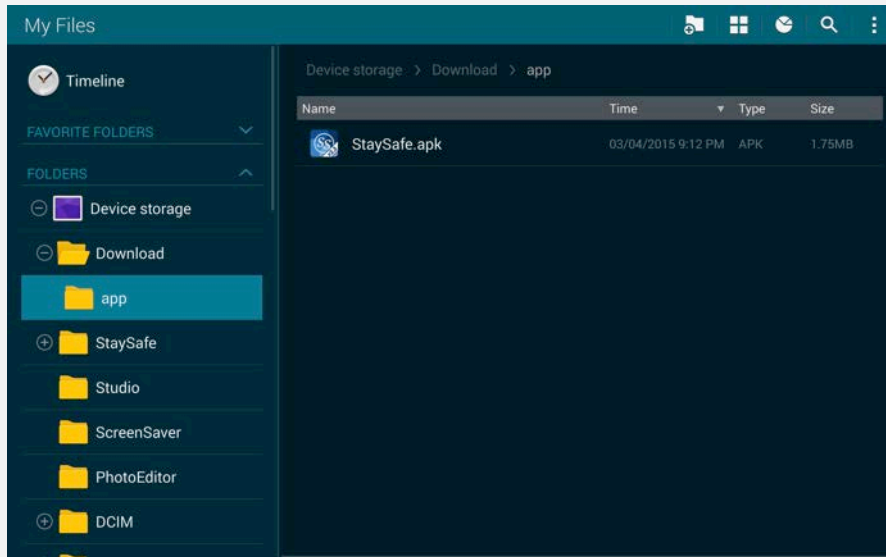
STEP 6: Next, follow the onscreen prompts to install the application *(as seen below)*

6
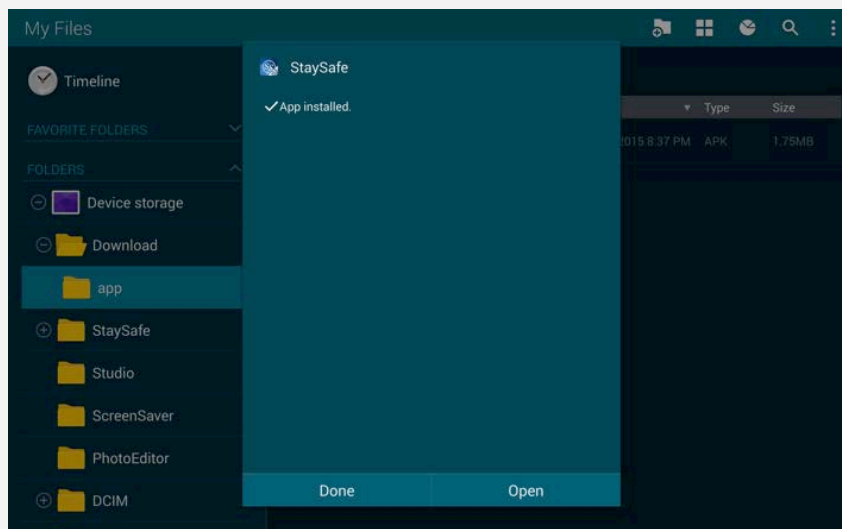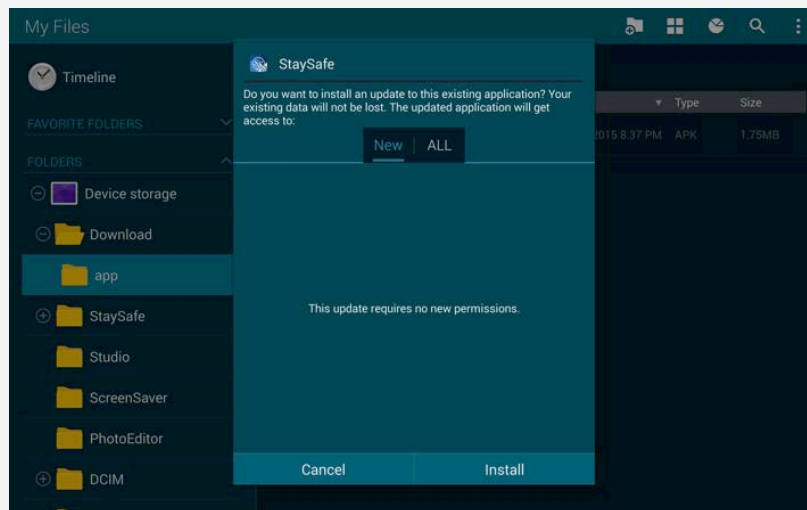
4.2 Mobile Tablet Installation Instructions

From a mobile tablet:
**Step 1:** To begin, navigate to the website: brazos.cs.tcu.edu/1415MakeSafe or reference project DVD.

Step 2: You will need to navigate to the resources tab and download the Data and App by clicking the links on this page.


Step 3: Once the files have downloaded, navigate to Android file explorer "My Files."
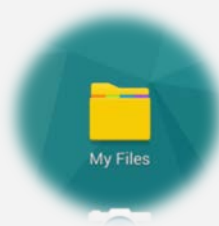
STEP 4: Navigate to the "Download" folder. Here you will see the two files previously downloaded. Next, tap on each item to extract them. For the StaySafe.zip download, you *must* name it StaySafe as seen below.
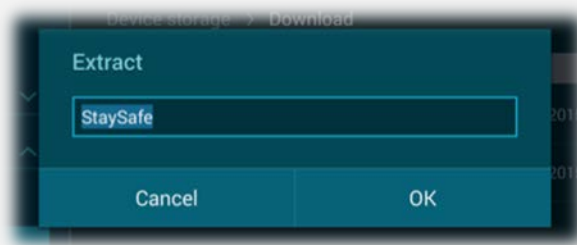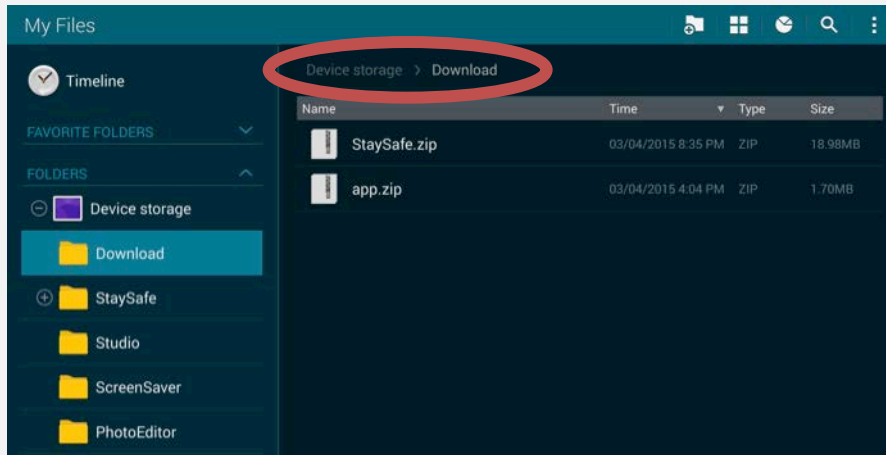

STEP 5: Now that both items are extracted, the downloads folder will look like below image.
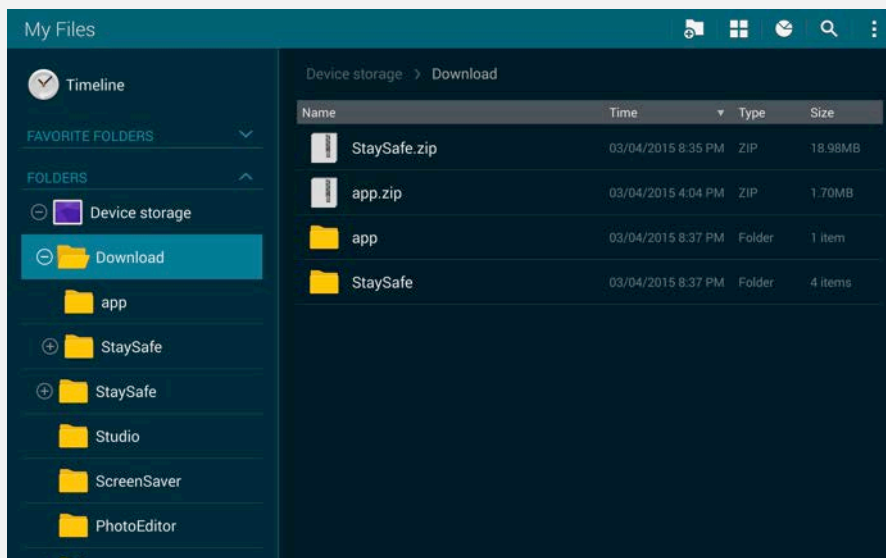

STEP 6: The next step in the setup of the application is moving the StaySafe folder into the root directory of the device called "Device Storage." To accomplish this task:

- *tap and hold* the StaySafe folder until a green check mark appears to the left of the yellow folder indicating it has been selected *(shown below)*.
- Once completed, a new set of icons will appear in the top right corner of the tablet screen.
- With the StaySafe folder selected, tap on the move icon marked in the below screenshot.
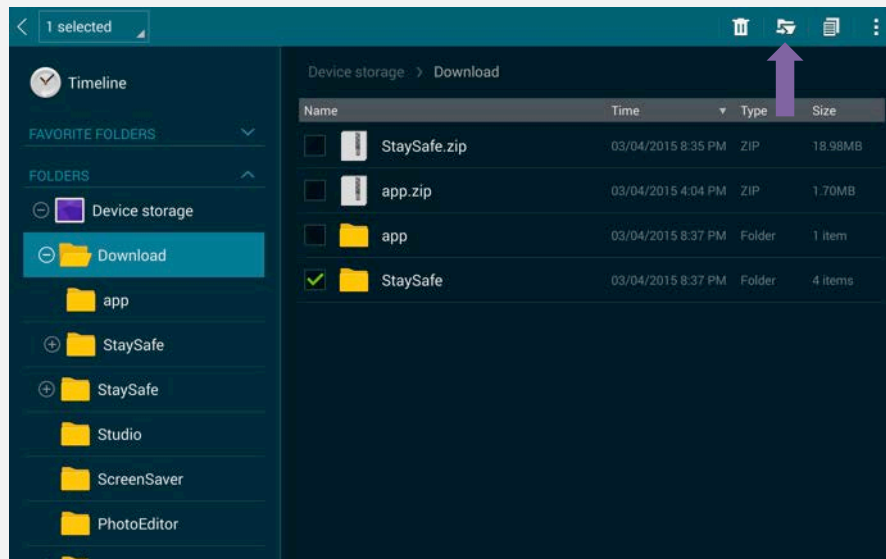
STEP 7: From here, you need to navigate to the root folder "Device Storage" and tap the "Move here" dialogue in the upper-right corner of the tablet screen.
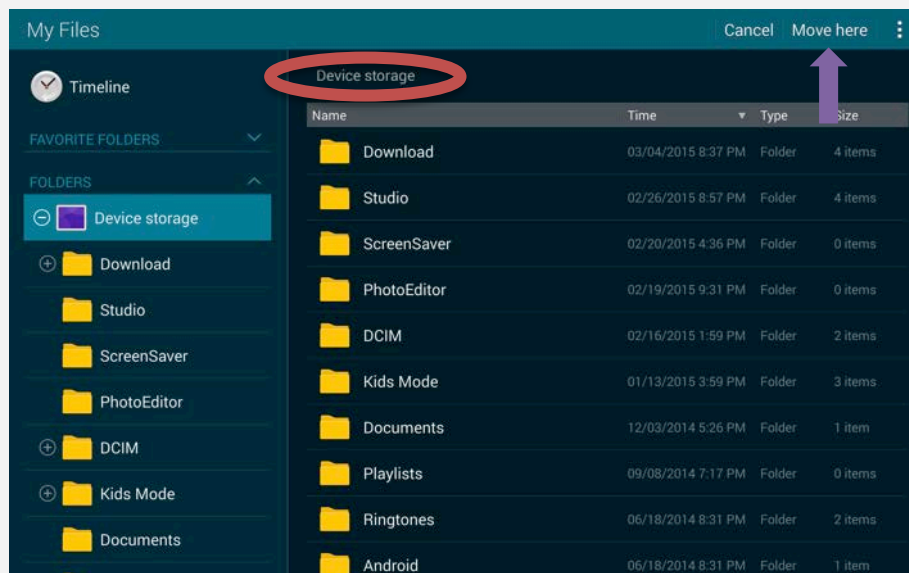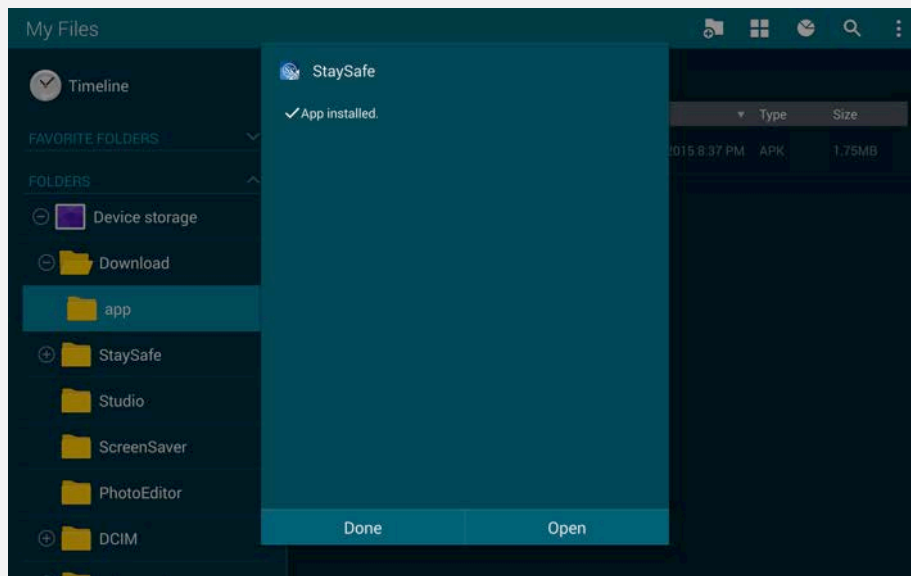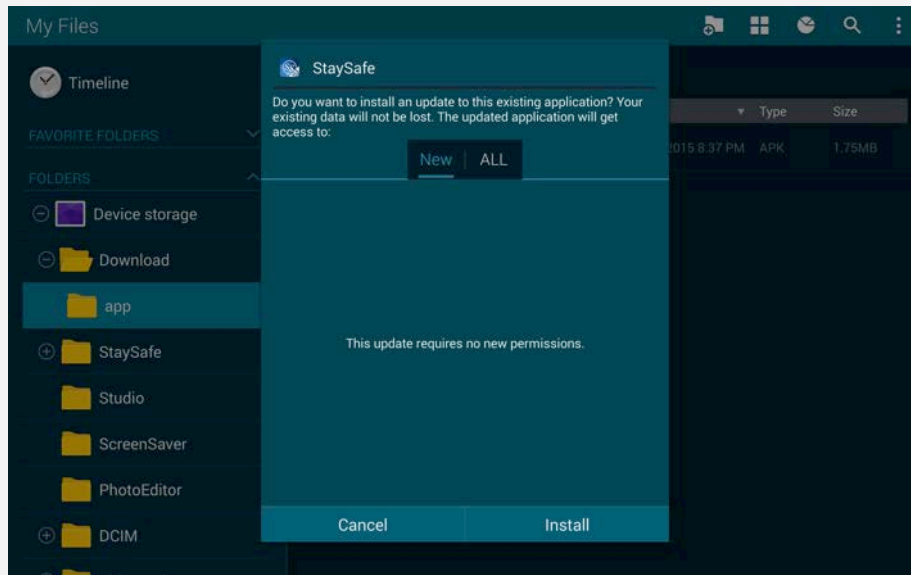
STEP 8: Now, navigate back to the Download folder and tap on the remaining "app" folder
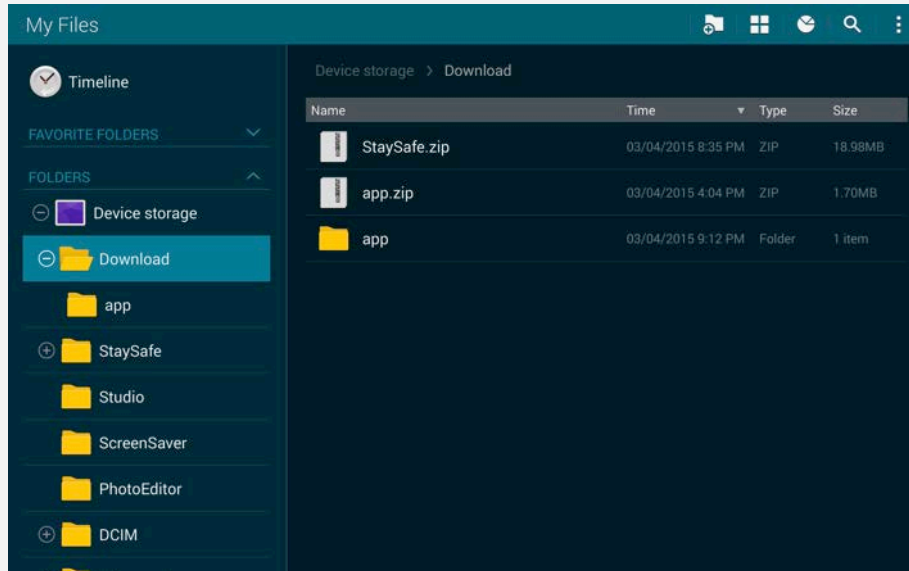
STEP 9: To install the application, tap on the "StaySafe.apk" file.
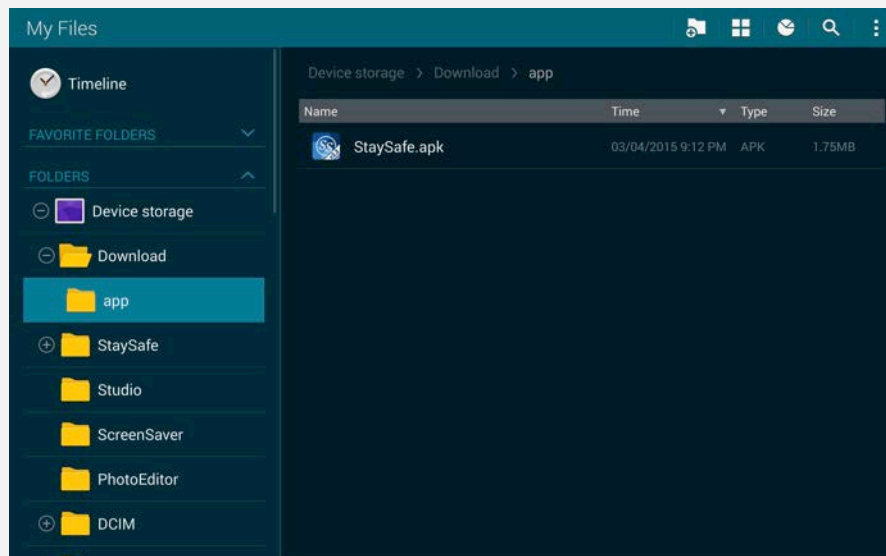
STEP 10: Follow the onscreen prompts to install the application *(as seen below).*

5 KeepSafe Application Installation

5.1 KeepSafe Installation

Downloading KeepSafe and Application Data

Before you begin:

Go to the Java website and ensure your Java version is updated: https://java.com/en/download/

You should be on Java version 8 to ensure that all functionality works correctly. As of April 2015 Oracle Java Version 8 update 45 is the latest release.

This process will download a zip file. Once unzipped the folder can be moved anywhere you want on your local computer. However, do not split up the 3 files; if they are not kept in the same directory the application will not launch.

The zip file contains a copy of the current StaySafe.json data file. This is all the dynamic text that is a part of the StaySafe application. KeepSafe currently saves the updates to the users home directory automatically as a safety measure while working through the application. At the completion of your changes you can use the Save As feature to make a copy using the name and directory of your choosing.

STEP 1: Navigate to the teams website: brazos.cs.tcu.edu/1415MakeSafe or reference project DVD.

**STEP 2:** Click on the resources tab and download "KeepSafe Java App"
- Download the file to a location of your choosing and **unzip**.
- **Note:** the unzip step is very important. With Windows you can actually navigate into and explore a zipped folder. However, you will not be able to launch the application executable.

STEP 3: KeepSafe.jar file is the file that you need to double click on to start the GUI.
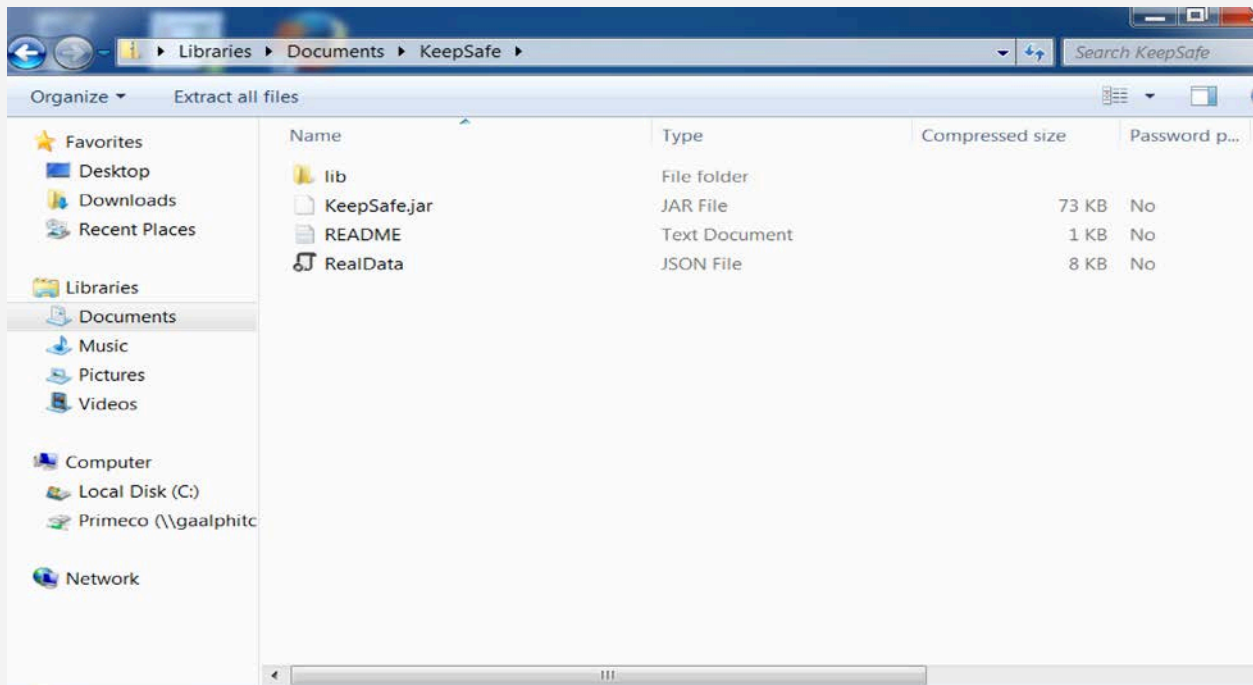
5.2 KeepSafe Execution

STEP 1: Double click on the KeepSafe.jar file to launch the application. You will see a window similar to the following:
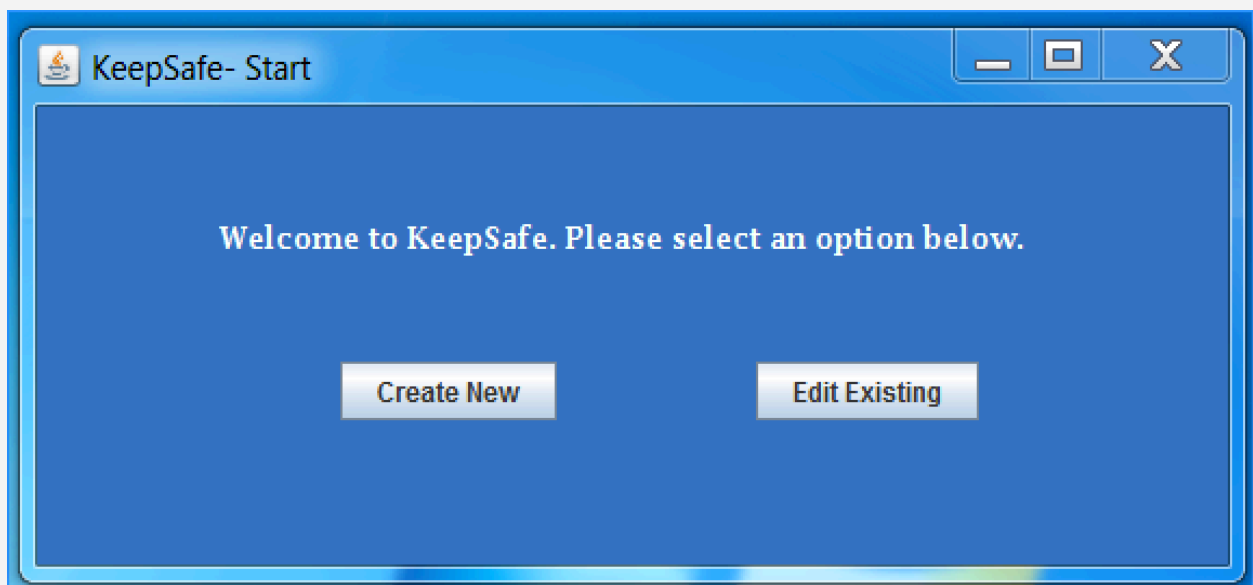
STEP 2: The Create New button will take you into the application to type in all the data for all screens and templates. It starts with a blank slate. The recommended action is "Edit Existing."

- Navigate back to the My Documents folder and select the StaySafe.json data file from the KeepSafe Folder.
- We are now ready to start editing content.
- The next few screen shots only show a truncated portion of the entire application screen.
- This will help to better zoom into the area of interest.

Template 1: There are only 2 screens with dynamic content for Template 1.

STEP 3: Begin the modification process for Template 1

- Displayed by default
- There are only two slides that have editable content on Template 1
- Change the text on each of the two slides.
- When finished go to "End" tab and click on "Save and go to Template 2."
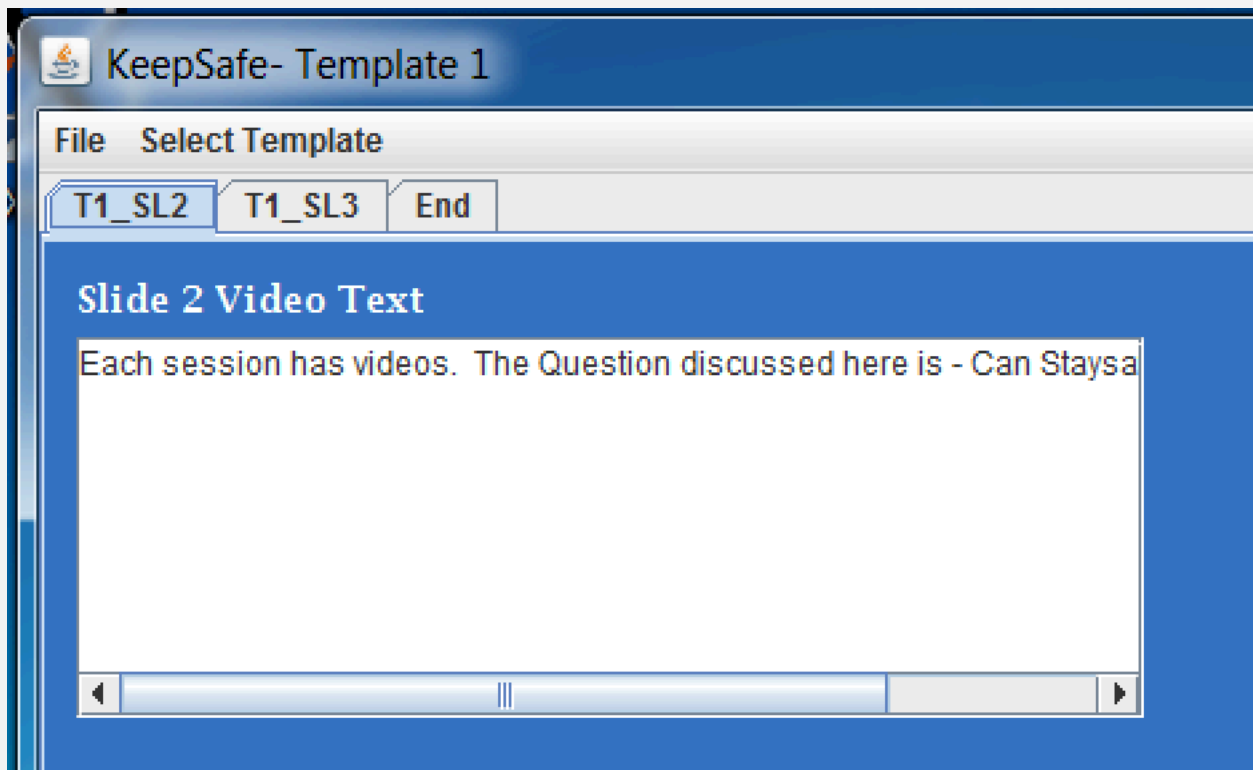
Template 2: Editing the main problem choices.

Step 4: Begin the modification process for Template 2

- Use the Checkboxes to select the 4 choices that you wish to be included for each Theme.
- Only a maximum of 4 choices can be displayed on the application at one time.
- If you want to add a new choice you must deselect a current item.
- If a new choice is to be included, check the box and enter the problem choice name.

Important: You must hit "Save Choices" before proceeding.

STEP 5: You will now see a window for Modify Problem Choices. Use the dropdown box to select the problem choice that you want to edit. You will need to work through each of the slides to edit the content for each.
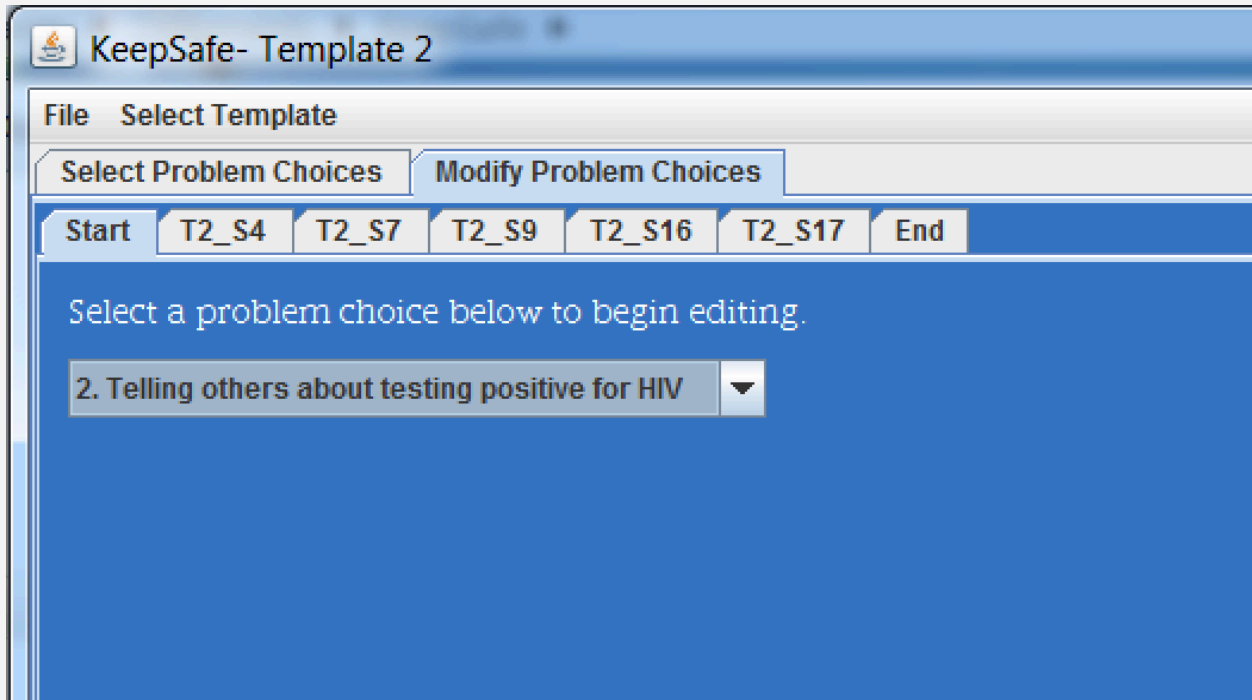
STEP 6: Once completed click the Save button.
- You will return to the beginning of the modify problem choices.
- Repeat until all desired modifications completed.
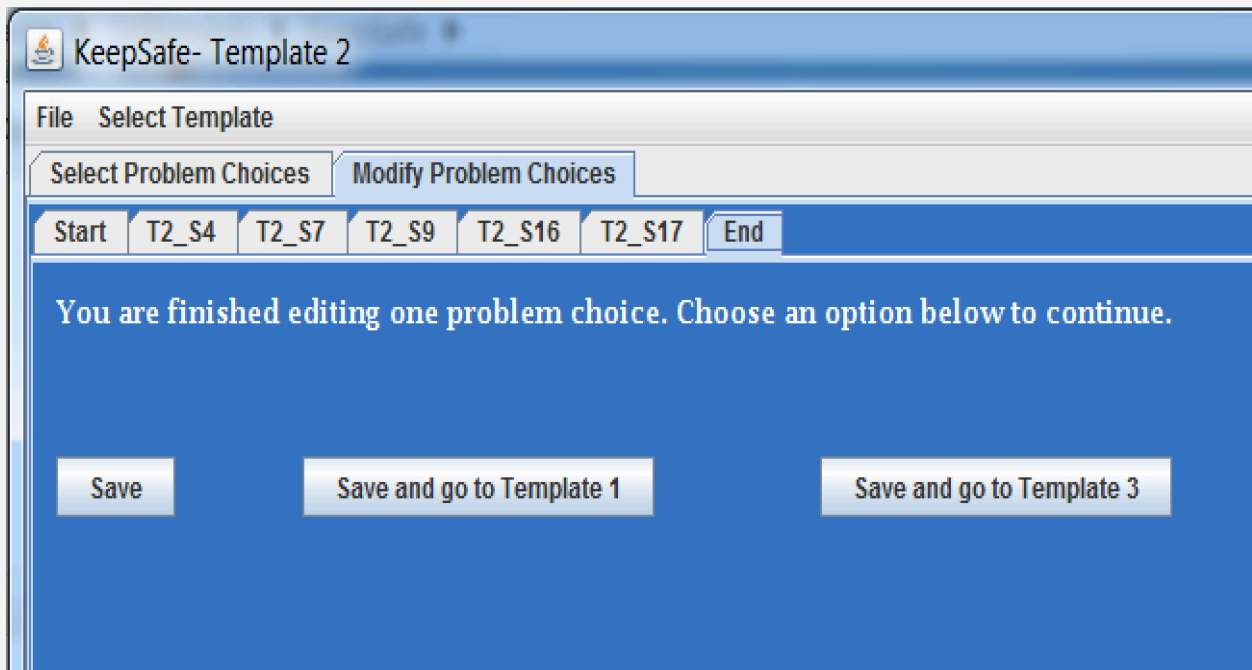
Template 3: Template 3 follows the same basic format as template 2.

STEP 7:
- Work your way through the 3 sessions and modify the text content that you wish.
- Once complete go to the "End" tab and save.
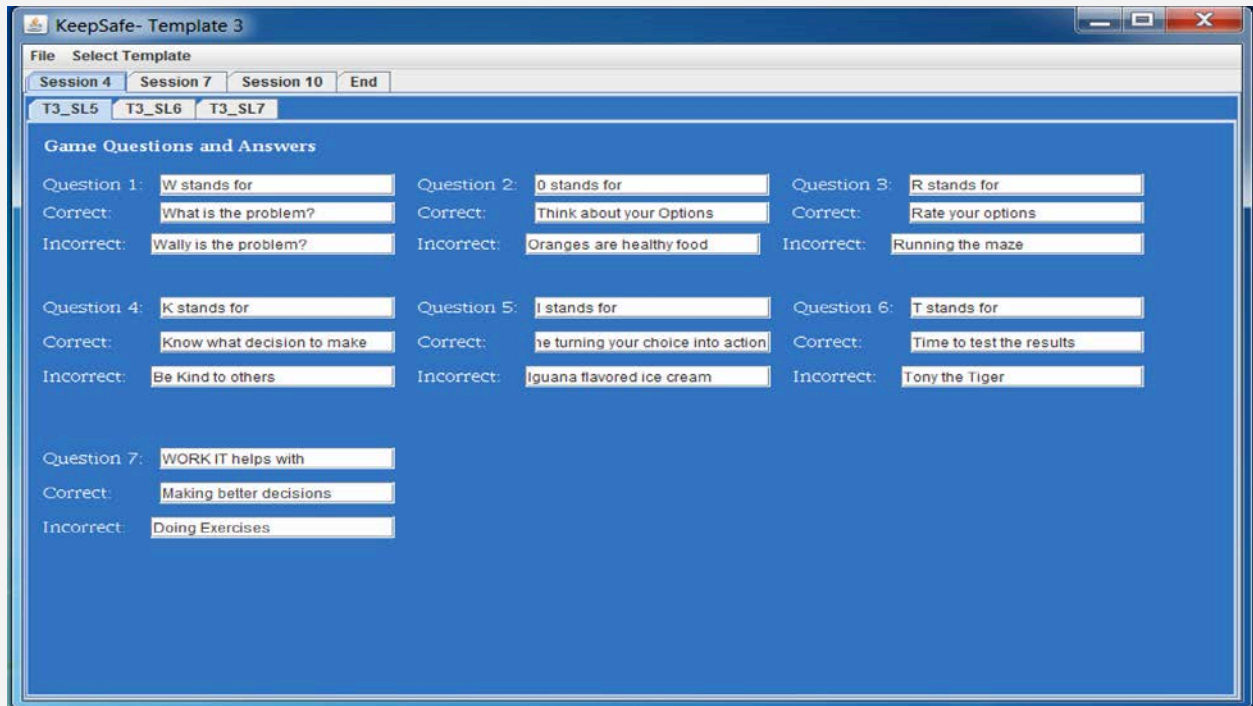
STEP 8: Saving the new data.
- **Click on File – Save As**
  - Name the file any name that you choose.
  - The File extension must remain .json
  - The application requests the name to be exactly "StaySafe.json"
  - If you save the file with any other name it must be changed before loading on the tablet.

6 CSV File Creation and Access Import

6.1 Process 1

At the completion of a session a .csv file will be created on the tablet in the /Device Storage/StaySafe/Data folder on the tablet. This file will need to be moved to the Research Assistant laptop and deleted on the tablet.   Once the files are uploaded to the IBR shared folder the csv files can be combined using two different methods.

Merge all data from the csv files in a folder into a text file

1. Windows Start Button | Run
2. Type cmd and hit enter ("command" in Win 98)
3. Go to the folder with the CSV files (for help how to do that enter "help cd")
4. Type copy *.csv all.txt and hit enter to copy all data in the files into all.txt.
5. Type exit and hit enter to close the DOS window

Now we must import the text file all.txt into Excel.

1. Open Excel
2. When you use File Open to open all.txt the Text Import Wizard will help you import the file
3. Choose Delimited
4. Next
5. Check Comma
6. Finish

6.2 Process 2

The code needed to for the csv merge process can be found on the MakeSafe website under resources or the project DVD. Listed below are the steps to add the macro into Excel. After you click OK in the dialog box it will merge all data into a txt file and then import and save the data into an Excel file.

Copy the code below into a normal module of a workbook by following these steps:

1. Alt-F11
2. Insert>Module
3. Paste the macro
4. Alt q to go back to Excel
5. Alt F8 to open your macro list
6. Select **Merge_CSV_Files** and press **Run**

7 Glossary of Terms

CS: TCU's Computer Science department

DRR2: Disease Risk Reduction project 2

GUI: Graphical User Interface

HBV: Hepatitis B Virus

HCV: Hepatitis C Virus

HIV: Human Immunodeficiency Virus

HTML: Hypertext Markup Language

IBR: Institute for Behavioral Research. The Institute of Behavioral Research was established in 1962 by Saul B. Sells to conduct research on personality structure, personnel selection, social interactions, and organizational functioning. See more at *www.ibr.tcu.edu*.

IDE: Integrated Development Environment

JSON: JavaScript Object Notation

PO: The individual probation officer the probationer will be meeting with.

RA: The individual Research Assistant who will be on-site administering the StaySafe therapy to the probationers.

SD: Security Digital

SDK: Software Development Kit

WiFi: Refers to the wireless communication of network data.

WORK-IT: This is an acronym that depicts the model that we use to flow through template 2.
>   W: What's the problem? Who will be affected by your decision? Who can help with this decision?
>   O: Think about your Options.
>   R: Rate your Options.
>   K: Knowing what decision to make.
>   I: Imagine how you will turn your choice into action.
>   T: Time to Test the results.