**<u>Scenario 1:</u> Mike Johnson is a TNC back-end user of the application.**

Mike Johnson is a nature conservancy GIS technician. He's been with the TNC for about six years and, while he hasn't gone on any expeditions, he uses the data the citizen scientists record to make maps of the wet and dry areas along the San Pedro river. This year he will meet teams on site as they finish collecting data along their reach. He drives to the point where the fifth team has agreed to meet and waits for them to arrive. While he is waiting he gets out his phone and notices that there is very poor reception. On his phone he opens the application that the teams are using to record data and pulls up the instructions for data recording that the teams get. He reviews it as he waits. About an hour later he sees a team walk out of the brush on the side of the dirt road. Mike gets out of his car with his phone and a laptop from the TNC. He walks over to the team and uses a short cable to connect the GPS unit to the laptop. The coordinates from the GPS unit upload automatically. Then, once the data is uploaded, Mike disconnects the GPS from the laptop and takes out his phone. He then has the team he is meeting with take out their phones and tells them to upload their data as he demonstrates. Mike opens the data recording application and navigates to the page where data points are recorded and instructs the team to press the 'Upload Data' button. As the team does this they each receive a notification saying that their data has been uploaded. Once this happens the team members begin to trickle away until Mike is the last one left. He takes the laptop and his phone back to the TNC office with him where he accesses the app through his computer. He sees that all of the data has been uploaded and he saves it as an excel file (.xls) to his workstation. He can then use the .xls file later and import it into his GIS software to map out the data he receives. His coworkers also access the data and can save it to use later.

Later that afternoon the app releases a reminder to upload data. About fifteen minutes after this reminder Mike goes back and checks all of the data on the application and notices that two new records have been added. Mike saves the final data and gets to work creating maps.

**<u>Scenario 2:</u> Morgan Garcia is a TNC volunteer recording data on the application.**

Morgan Garcia is a twenty-six year old who just moved to Benson, Arizona, along the San Pedro river. She used to live in Michigan and would regularly hike the trails and record data there. She misses her previous home and has decided to join the Nature Conservancy on their mission to do wet/dry mapping for the San Pedro river to make herself feel more at home. She is trained to use her GPS the night before her and her assigned team are supposed to set out. She is also told that she should bring her phone to collect data. In the morning at about 5:45 AM she meets up with her team at their assigned location. It's the first time wet/dry mapping for about half of her team. The team leader takes makes sure everyone is accounted for and then has her team bring out their GPS and their cell phones. On their cell phone they open an app they downloaded the night before and record that they are at their first waypoint and the specific GPS coordinates. Because it is the first waypoint the app asks them to input the current time which Morgan puts 5:53 AM. They also record that there is no water at this point. Then they begin to walk downstream. About an hour and a half later they find a spot where there is a pond. The team leader tells them to stop and record their second waypoint. Morgan pulls her phone out and opens the app. She records that she is at her second waypoint, the GPS coordinates, and that the water is ponding and not flowing. She also notes in the app that there are signs of a party here, including large piles of debris and trash. Her team continues downstream until the pond ends. Morgan opens her the app and records her third waypoint, noting that it is the end of ponding water. Her team continues marking waypoints until they get to the end of their reach, their portion of the San Pedro river. Her team leader reminds the team to open the app and record their last waypoint and the time. Her team meets up with a Nature Conservancy Staff Member who reminds them to upload their data from mapping when they have cell service. Before she leaves Morgan opens the app and hits the 'Upload Data' button. A confirmation appears that lets her know that the data has been uploaded.