**SCHEMA TABLE (Road Conditions App)**

*Add rows as necessary and duplicate the feature class table if you are including multiple feature classes.*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Feature Class: Blind Spot [Point]** | | | | | | | | |
| **Field Name** | | **Alias** | **Type** | | **Length** | **Domain** | | **Notes** |
| BlindCornerIntersection | | Is this a blind corner or intersection? | Text | | 50 | YesNo | |  |
| Cause | | What is impeding your line-of-sight? | Text | | 50 | Cause | |  |
| ControlledIntersection | | Is this a controlled intersection? | Text | | 50 | YesNo | |  |
| Snapshot | | Snapshot | Blob | | n/a |  | | Need to add disclaimer about danger of picture taking near roads. Need to make sure users understand it’s for “from the road” blind spots |
| Date | | Date | date | | dd/mm/yyyy |  | |  |
| Time | | Time | time | | hh:mm |  | |  |
| **Domain Name** | | | **Domain List** | | |
| Cause | | | Legally Parked Vehicle, Illegally Parked Vehicle, Construction, Barricade, Sharp Corner, | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Feature Class: Pot Hole [Point]** | | | | | | | | |
| **Field Name** | | **Alias** | **Type** | | **Length** | **Domain** | | **Notes** |
| PotHole | | Is this a pot hole? | Text | | 50 | YesNo | |  |
| Size | | What is the approximate size? | Text | | 50 | Size | |  |
| Water | | Is there a puddle? | Text | | 50 | YesNo | |  |
| snapshot | | Snapshot | blob | | n/a |  | | Need to add disclaimer about danger of picture taking near roads. Need to make sure users understand it’s for “from the road” blind spots |
| date | | Date | date | | dd/mm/yyyy |  | |  |
| time | | Time | Time | | hh:mm |  | |  |
| **Domain Name** | | | **Domain List** | | |
| Size | | | Could cause a bike flat, Could cause a motorcycle flat, Could cause a car flat, Could cause a truck flat | | |

### Part 6: Brief reflective essay

**Please answer the following questions:**

1. In this lab you used ArcMap, Esri Online, browser based Survey123, and Collector. As the developer, how did you find working within ArcGIS to build these data collection tools? Please include a description of the process of building the form, the geodatabase, and the online map.

Collector App Process:

* 1. [Create a geodatabase, feature classes and relative fields](https://doc.arcgis.com/en/collector-classic/android/create-maps/prepare-data-desktop.htm) ([Drop-down tutorial](https://communityhub.esriuk.com/technicalsupport/2013/8/22/how-to-create-drop-down-menus-for-populating-attributes.html)).
  2. [Create a map in arcgis online, link the geodatabase and share the content to appropriate group](https://doc.arcgis.com/en/collector-classic/windows/create-maps/create-and-share-a-collector-map.htm).

Survey123 Process:

* 1. Download the desktop program ([Survey123 Connect](https://www.esri.com/en-us/arcgis/products/survey123/resources))
  2. [Create a new survey](https://survey123.arcgis.com/video/?hl=en)
  3. [Create conditional fields](https://community.esri.com/thread/192674-make-a-question-required-conditionally-based-on-answer-to-previous-question) within the .xls file within required parameters necessary for hosting.

Overall, I found the Survey123 process far more robust, due to the ability to make in-the-moment changes to the form through Excel. However, I would have preferred to use the survey web builder instead of having to download a desktop program.

1. How easy or difficult was the process?
   1. This process was simplified with the course material provided, howev.er I had to do additional research to find materials that would help in smoothing the process out, i.e. how to create multiple choice fields and specific
2. How much time did the various steps take?
   1. The total time allotted for the collector app talk
      1. The process involved beginning with the table template shown above. Once I realized it was rather brief, I began digging into the Survey123 portion. It initially directed me to download Survey123 and I didn’t recognized the difference between the app and the desktop version. I downloaded both and started working on the desktop version after realizing the app version doesn’t allow for create/edit of forms. When I began working on the form it gave me regular errors about not matching the name of the list correctly to the list sheet. I was able to figure that out with some tinkering. It is considerably intuitive if you have some experience with form fill applications and building. With no experience it could be tasking.

There was something I had troubles configuring out-of-the-box and that is conditional fields. However, I’m sure this can be done with some knowledge of Excel for Survey123, but I’m uncertain how to do this for the Collector app with Arcmap. In fact, I was unable to find documentation for conditional fields in ArcGIS and it was suggested that I used Collector [here](https://gis.stackexchange.com/questions/148850/making-fields-conditional-using-arcgis-for-desktop).

It seems like there could be some improvement in that area, whether that means further documentation for either service or a more available tutorials on the subject.

I am very happy with the Survey123 app’s user ability to annotate images, but did notice a slight bug that I unfortunately was not able to recreate or I would elaborate here.

This should be a ~2 paragraph narrative to reflect on the process. I encourage you to use vocabulary about design and evaluation that we've used in class and in readings.

1. What was something you wish you could have done with either Collector or Survey123 that you were unable to do? Elaborate.

I was unable to create conditional required fields. I came really close, but it was only producing a text field and I needed the form to require a select field

One thing I wish could be done within the Collector app is the ability to quickly and efficiently share points whether by URL or in-app messaging.

1. Reflecting on the data collection problem you set out to solve, do you think a form-centric or map-centric approach is better for your scenario? Please elaborate and explain why, referencing differences in user experience between the two tools as necessary.
2. Does your form introduce any risks associated with inclusion in the dataset or exclusion from the dataset? Justify your answer and explain any steps you might take to mitigate those risks.

Yes! There is a risk that users of the app could get hurt when taking pictures. I’ve included a small disclaimer about safety near the in-app location of adding pictures. However, I’m certain this needs to be improved.

### Deliverables

* Description of the data collection problem you are trying to solve (Part 1)
  + My problem set is based on road conditions for drivers, by trying to gather data on pot holes and blind spots for drivers.
* Data schema tables (Part 2)
  + See above
* A link to your Survey123 form (Part 3)
  + https://arcg.is/1O8fae
* The name of your Collector map (Part 5)
  + Road Conditions Survey
* Description of the customization choices you made to the basemap, popup windows, and application settings and why you made the choices you did (Part 5)
  + ???
* Brief reflective essay (Part 6)
  + See above