Remote Data, Data Storage, & Data Sources

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Link To Final Spark Page:
https://spark.adobe.com/page/HDMHvbKOskAMr/

What is Remote Data?

Remote data is a technology that is applied in combination with ActiveX Data Objects that provides the platform for retrieval set of data from a database server, of which the client then distorted in an unusual way and later sent it back to the server for further processing. For instance, scientists of the Antarctic have collaborated in creating a database of penguin population counts by relying on the obtained data from the four spheres of Sphenisciformes. The equipment takes penguin populations a step further by integrating advanced modeling techniques to identify and count penguin colonies from remote sensing data (Rouse, 2020). In addition, the technology enables scientists to calculate the occupancy probability and produce a graphical output that projects how penguin populations will change in the future.

Remote access provides the opportunity of accessing the systems for users when it is impossible to connect directly, meaning that the structure can only be attained by using telecommunication. The following are examples of remote data and how they are currently applied in an example app:

Remote Data Example 1

Cameras on satellites and airplanes capture images of extremely large areas on the Earth's surface, enabling us to view much more than we can while standing on the ground. Fulcrum is named as the best data collection app for geolocation with custom maps (Eposito, 2019). The app uses base maps from online or offline sources such as OpenStreetMap, Google Street View, and satellite imagery.

Remote Data Example 2

Remote data can be applied in the interactive voice response that allows individuals to deploy their forms as interactive voice phone calls, with the respondents answering by pressing the phone's numeric keypad. Magpi is an app mainly used for voice responses.

Remote Data Example 3

Sonar systems on ships are useful in creating images of the ocean floor without having a diver travel to the bottom of the ocean. FastField is an app used in exporting the ocean floor data into word and PDF templates.

What is Data Storage?

Data storage is a technical term for archiving data in electromagnetic or other forms for use by a computer or device (Wang et al., 2013). Various types of data storage play different roles in the computing environment. In the current state of technology, there are new options for remote data storage such as cloud computing, which contributes significantly to revolutionize the options that users can access data.

Data Storage Solution 1

IDrive Cloud Storage offers a continuous syncing of the user's files, including the ones on network drives. The solution is rated to be fast and easy to use, the expressed service is handy in case disaster strikes, and it has no two-factor authentication. This particular system is applied in Facebook and Twitter apps, which is important in sending a physical hard disk drive to restores all the lost data.

Data Storage Solution 2

Zoolz Cloud Storage offers an easy to follow interface
with excellent web management options, and the
opportunity to combine cloud operations with the
local external storage. Zoolz Cloud Storage is a
hybrid backup file version that is very affordable and
applied in the Amazon app, which is useful in tracking
and monitoring the three million users for a significant
time.

Data Storage Solution 3

What are Data Sources?

Data sources are the location where the data that is currently being used come from or first digitized, in either a disk or a remote server. For instance, a fashion and beauty brand that it their products online, on platforms such as Facebook. To display and announce whether an item is out of stock, the company first receives information from an inventory database that is constantly updated. In this case, the inventory tables are the data source particularly

accessed by the web application, which is efficient enough to serve the website to clients.

The two main types of data sources include machine data sources and file data sources. Machine data sources entails names defined by users that must reside on the machine that is obtaining data and cannot be easily shared. The machine data source is significant in providing all the necessary information required to connect to data. On the other hand, file data sources contain all of the connection information inside a single, shareable, computer file. The file data sources are editable as well as copy-able just like any other file in a computer. Hence, it provides users and systems to share a common connection and for the streamlining of data connection processes.

Apps That Have Features with Multiple Data Sources

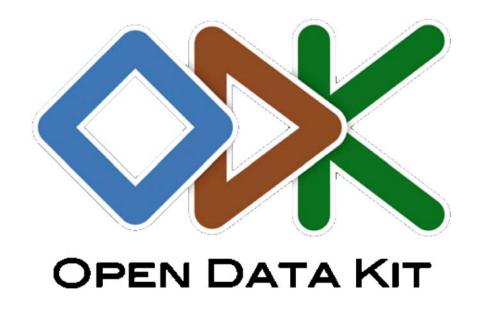### Teamscope

Teamscope is a secure and easy to apply data collection platform, particularly for sensitive data as well as clinical research. The app enables researchers to create powerful mobile forms, collect data offline, and visualize it with click buttons. Teamscope sets data as the first priority. The stored data is encrypted on mobile devices and users, other than requiring a username and password to log in, the user must create a four-digit passcode to unlock as well as use the app.

Open Data Kit

OPEN DATA KIT

Open Data Kit is an open-source software designed for collecting, managing, and using data in environments with extremely minimal resources. The app offer open-source and standards-based tools that allows easy operation of multiple types of data from text to pictures to the user's location, as part of the information collected and entered as needed with

researchers. Open Data Kit offers unique software
that provides easy access to simple tools that causes
large-scale deployment for mobile data recording.

Jotforms Mobile

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Jotforms mobile app enables users to collect diverse
types of data such as voice recordings, geolocations
and electronic signatures, barcodes. Afterwards, the
client has the opportunity to build, access, fill out,
view, organize, and share all these data in a single
place. The app entails a recording app that allows it
to function offline as well as utilize iOS and Android
push notifications in order to alert the user of any new

respondents or changes in data (Drake, 2020). With the increase in size of studies as well as research groups, the app has the option of making collaboration between the team members. This can be achieved by creating forms and assign individual researchers who will be able to collect data even in areas with limited or extremely no connection to the internet. The data can be viewed immediately the respondents have filled then forms, and give an immediate response to the received information.

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