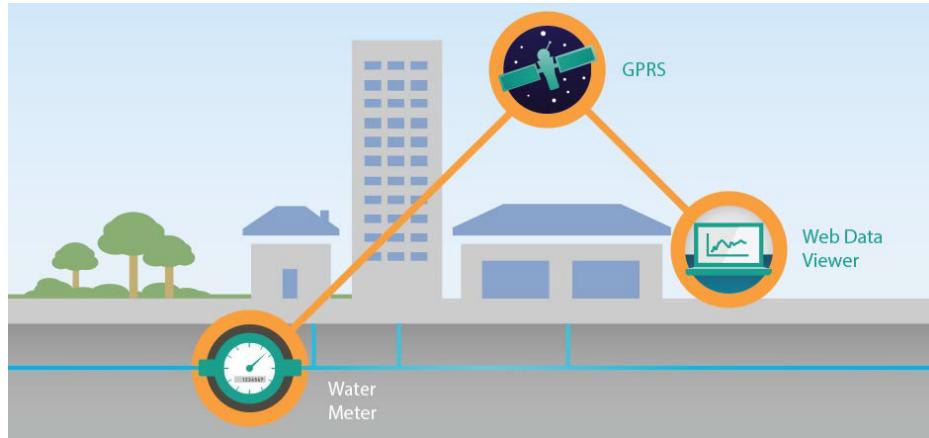


Remote Data, Data Storage, & Data Sources

KYLE HYNES - 11/10/2018 -

[HTTPS://SPARK.ADOBE.COM/PAGE/KCJYLKGQ5ULW/](https://spark.adobe.com/page/kcjylkgq5ulw/)



Remote data capture [Digital image]. (n.d.). Retrieved November 10, 2018, from <http://meterlogic.co.uk/public/products/remote-data-capture>

What is Remote Data?

With the continuous and exponential advancement in technology over the past several decades, we as a human race have been able to collect, log, and share more data than we ever have before. With all of that data, the need for transferring said data more quickly and efficiently became a priority, and through the use of application program interfaces (API's) such as remote data objects (RDO, which is primarily used for windows applications) which can move data from a

server to a client application or Web page, manipulate the data on the client, and return updates to the server in a single round trip. All of this happens "remotely" without the use of local connections with cables. A great example is listed above...you open your water account online to view your current usage, your meter remotely transmits that data to the server, then displays that information back to you, all without requiring you to go and break into your meter and plug into it manually...which is also illegal.



17072018_Big_Data_Plattform_xl [Digital image]. (2018, July 18).

Retrieved November 10, 2018, from

https://www.dlr.de/dlr/en/desktopdefault.aspx/tabcid-10202/334_read-28966/year-all/

Examples of Remote Data



With complex and expensive operations like launching payloads into space, engineers needed to know how all the components of these spacecraft were functioning at any given time. The same was true for airplanes, as a small fault left undetected could become worse over time and lead to a component or system failure which could potentially put lives in danger. This led to the development of devices like the Flight Data Acquisition Unit (FDAU) which captures information in real time from the moving parts within a plane. This data was then stored in the flight data recorder (commonly referred to as the “black box”) (Engineering, 2017). This data could also be used in flight tracker apps!



Providing the agricultural industry with the capabilities of remote data has allowed them to improve agricultural efficiency and yields by using this remote capability to monitor things such as environmental factors like soil moisture, temperature, and changes in weather. The data collected could also be compiled and analyzed to generate statistical information which could optimize water requirements for the crops and improve yields in the future.



Few occupations are as dangerous as working in a mine. Remote data acquisition systems can be used to monitor information on structural stability, levels of gases like oxygen and carbon dioxide, vital equipment like fans used to regulate airflow, and more. This information can be analyzed to improve the safety and profitability of mines around the world (Engineering, 2017).

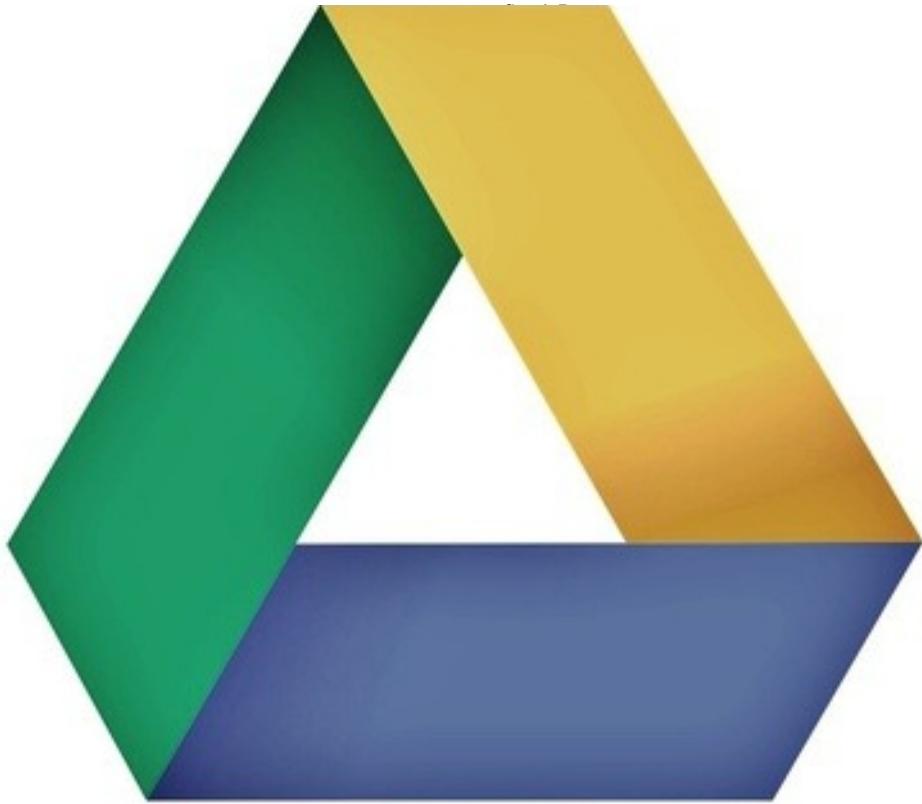


59278b16bc4d9d6b7dc857c8_datastorage [Digital image]. (2018, September 14). Retrieved November 11, 2018, from <https://www.bigblocksolutions.com/post/the-future-of-data-storage-and-how-it-affects-your-business>

What is Data Storage

Data storage is the recording (storing) of data/information on a storage medium. The data we process in the mobile development field is storage on digital storage mediums, which range from local and remote access, such as hard drive, servers, disks, as well as cloud based storage.

Three Data Storage Solutions



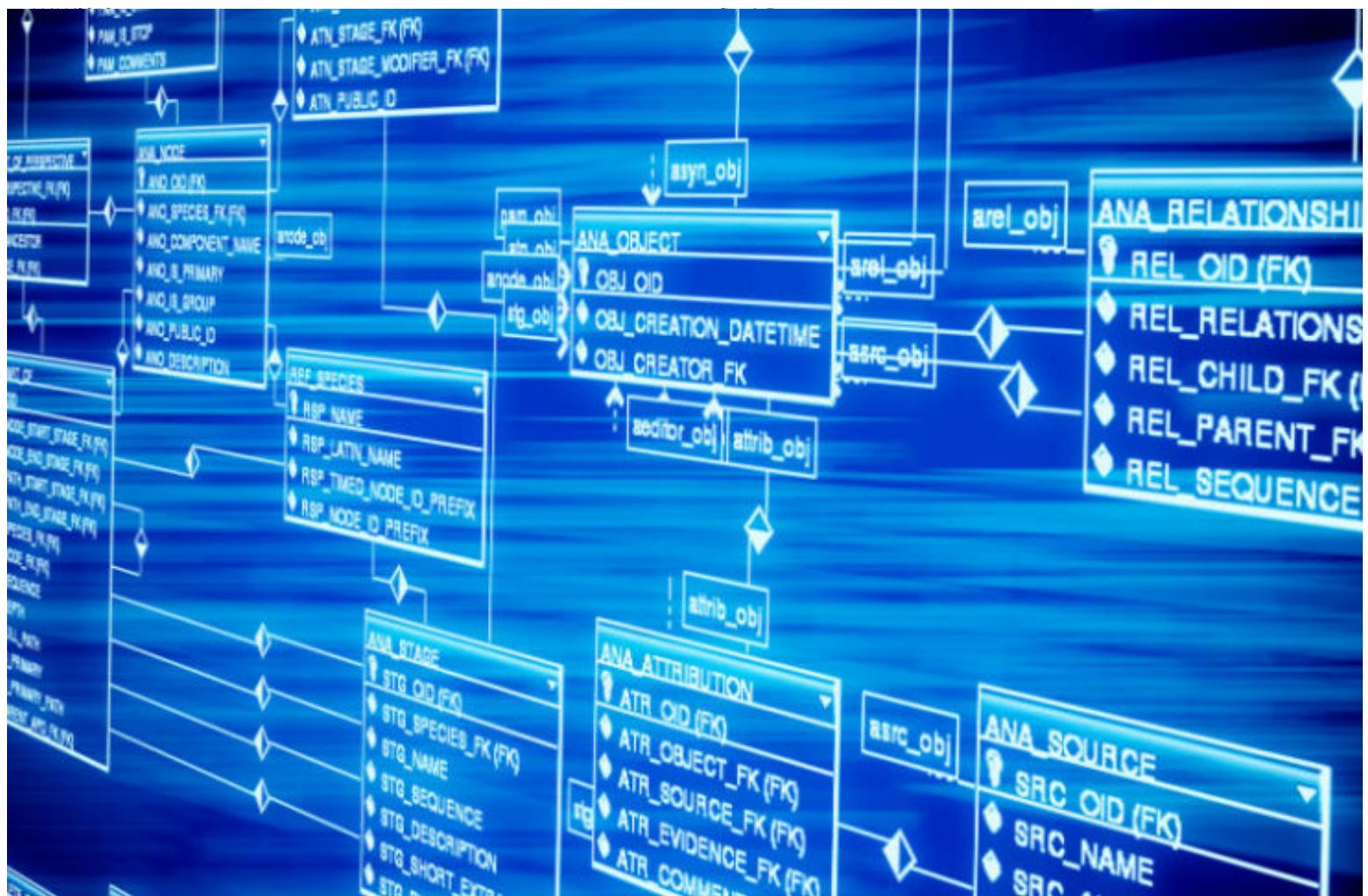
Google Drive

Google drive, which is a cloud based storage medium, can be used either on the web, from a disk image, or on the Google drive app, in order to access, modify, save, and share various forms of data.

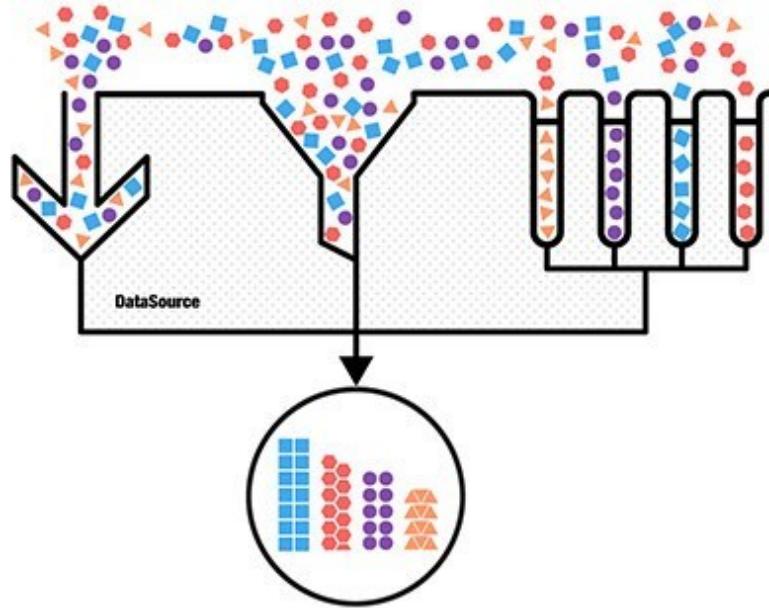


iMore

SIM cards are storage mediums that store cellular data such as carrier information and various phone settings. SIM cards allow the easy transfer of these settings from one phone to another.



Database's, whether relational or non relational store and organize large amounts of data which can be pulled to an app or program for viewing, as well as having data being saved or "pushed" back for storing or modification. This is used in virtually every app we see.



Data-source-ios-android-xamarin-what-new [Digital image]. (n.d.).

Retrieved November 11, 2018, from

<https://www.telerik.com/xamarin-ui/datasource>

What Are Data Sources?

A data source is exactly that, it is the source of the data the user/program needs to access. The purpose of a data source is to gather all of the technical information needed to access the data — the driver name, network address, network software, and so on — into a single place and hide it from the user. The

user should be able to look at a list that includes Payroll, Inventory, and Personnel, choose Payroll from the list, and have the application connect to the payroll data, all without knowing where the payroll data resides or how the application got to it (MightyPen, 2018).



246x0w [Digital image]. (n.d.). Retrieved November 11, 2018, from
<https://itunes.apple.com/us/app/nike-training-club/id301521403?mt=8>

Nike+ is a fitness tracker app that can procure its data from various connected sources. So when pulling its data to display progress, the app, as an example, could pull your movement information from your FitBit, your calorie intake from your calorie counting app, as well as times and dates from your device.

References:

MightyPen. (2018, November 07). Remote Data Service (RDS). Retrieved November 10, 2018, from <https://docs.microsoft.com/en-us/sql/ado/guide/remote-data-service/remote-data-service-rds?view=sql-server-2017>

Market-aerospace [Digital image]. (n.d.). Retrieved November 10, 2018, from <http://www.dtb-infopros.com/dtb-client-markets-aerospace.aspmarket-aerospace>

Engineering, N. (2017, October 3). Novel News. Retrieved November 10, 2018, from <http://blog.novel.engineering/applications-for-remote-data-acquisition-and-analysis>

Datascharfsinnsstock [Digital image]. (2018, October 3). Retrieved November 11, 2018, from <https://www.greenbiz.com/article/can-big-data-hold-key-unlocking-sustainable-smallholder-farms>

Arton882 [Digital image]. (2016, February 7). Retrieved November 11, 2018, from <http://www.elsalmoncontracorriente.es/?Cual-es-el-verdadero-costo-de-la>

Main-qimg-d73f9085d1708736b01489f4e5971850-c [Digital image]. (2017, November 11). Retrieved November 11, 2018, from <https://www.quora.com/What-message-does-the-Google-drive-logo-convey>

Sim-card-tray-iphone6-hero [Digital image]. (2017, December 3). Retrieved November 11, 2018, from <https://www.imore.com/sim-card>

Database-770x481 [Digital image]. (2018, November 11). Retrieved November 11, 2018, from <https://www.cbronline.com/what-is/what-is-a-database-4917209/>

MightyPen. (2018, January 18). Data Sources. Retrieved November 11, 2018, from <https://docs.microsoft.com/en-us/sql/odbc/reference/data-sources?view=sql-server-2017>

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