IDEA/APPROACH DETAILS

Organization Name : Govt. of Sikkim

Problem Statement Title: Data Storage and analytics with Dashboard

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Problem Description: Schools in Sikkim are located in different terrain and during monsoon it's very difficult to reach every school to get data. In govt sector sometimes we need data immediately in such a scenario getting data is difficult. As network connection is very challenging throughout the state of Sikkim, the requirement is of an application such that the data can be entered offline and later put on the web when the network is available without losing data.

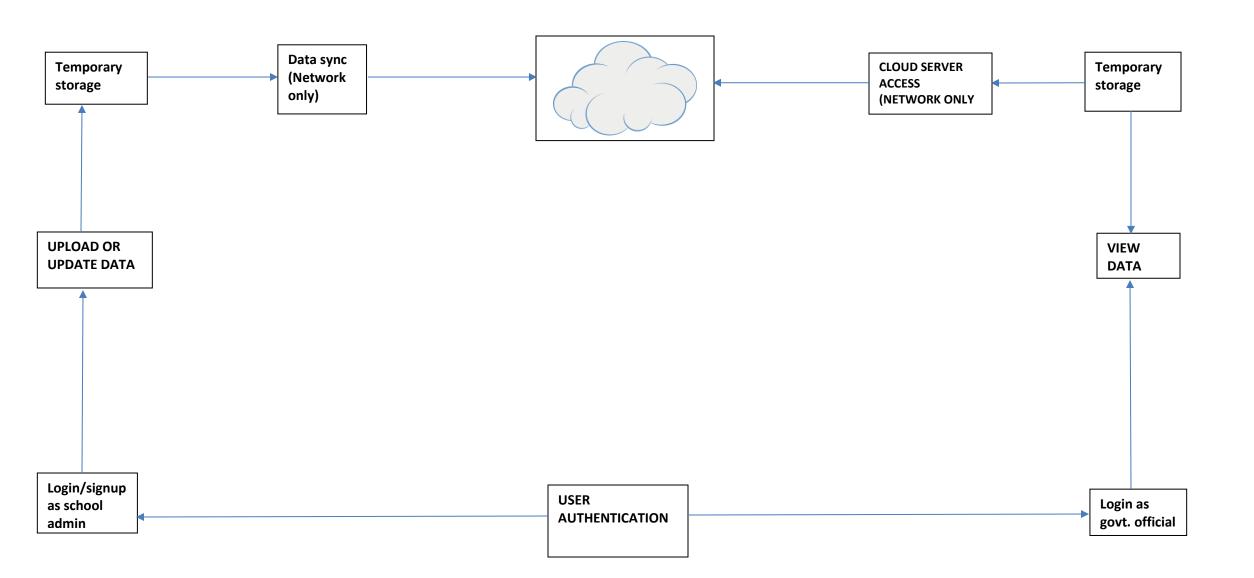
IDEA / APPPROACH DETAILS

- The idea is to design a Software in which data (like attendance, marks and other statutory records) can be entered offline and later put on the web when the network is available.
- For this Problem, we will be designing a web portal and developing an application that will facilitate school admin to upload and update data and educational department officer to view those data by using separate login credentials. Additionally, this will support a feature which will allow admin to upload a file separately once in a month.
- Data will be entered manually on web portal or web application. Web portal will be designed using Django and application will be designed in Visual Studio. Data can be entered even when network is not available. This data will be temporarily stored on local machine and as soon as network is reestablished data will be automatically synced to the cloud. API will be used for background data synchronization. Data will be stored in the form of SQL queries.

TECHNOLOGY STACK

- Python
- HTML/CSS/Bootstrap for UI
- JavaScript for frontend
- Django for backend
- Visual Studio for Application
- AWS/Azure cloud service
- MySQL for database
- API for data synchronization

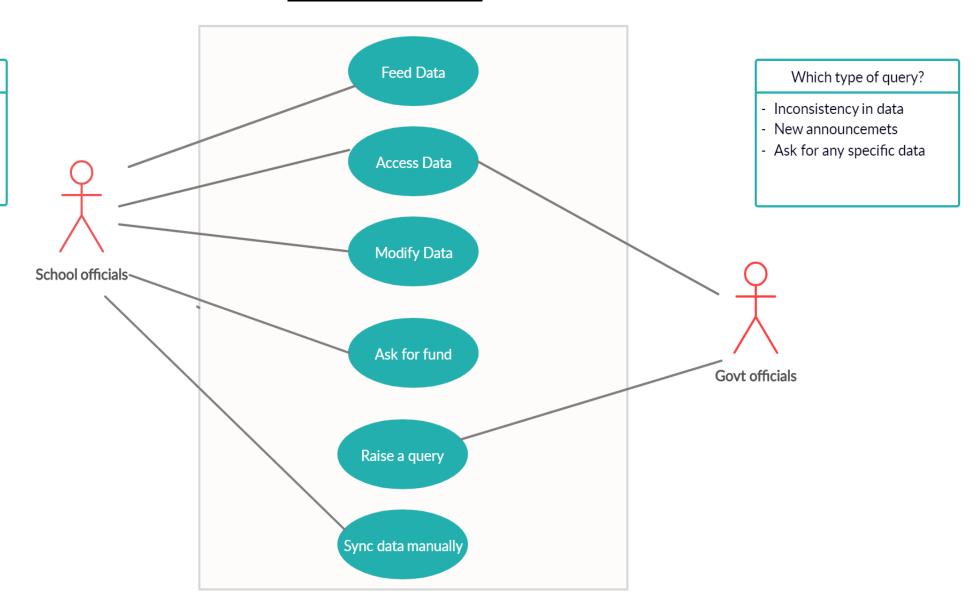
Work-Flow Diagram

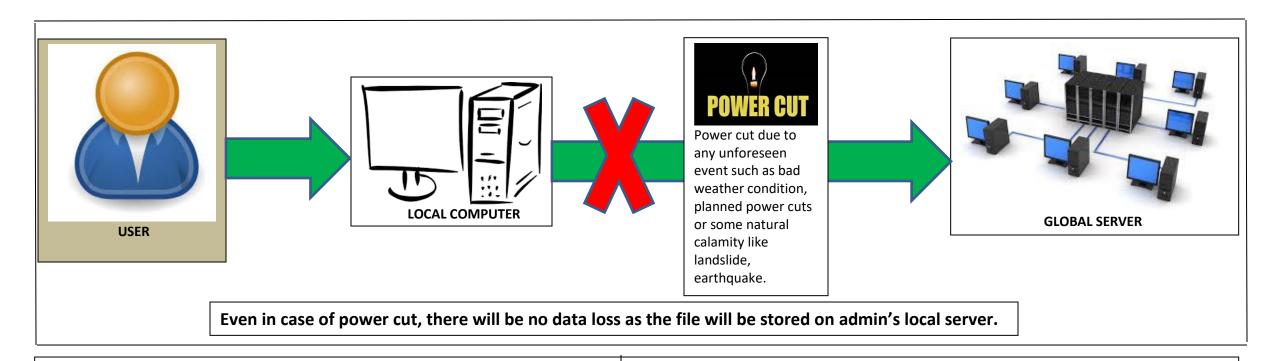


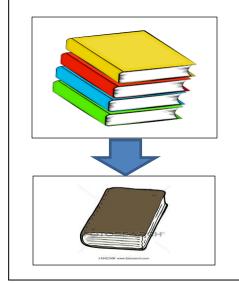
Use Case Diagram

Which type of data?

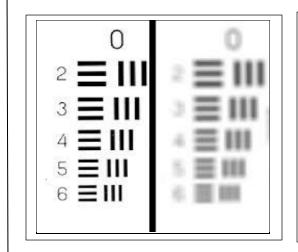
- Student's attendance record
- Teacher's attendance record
- Student's grades
- Statutory records







Data will be compressed for faster transmission of data.



Only useful data will be encrypted for security purpose.

Only 50% data will be encrypted for less power consumption.