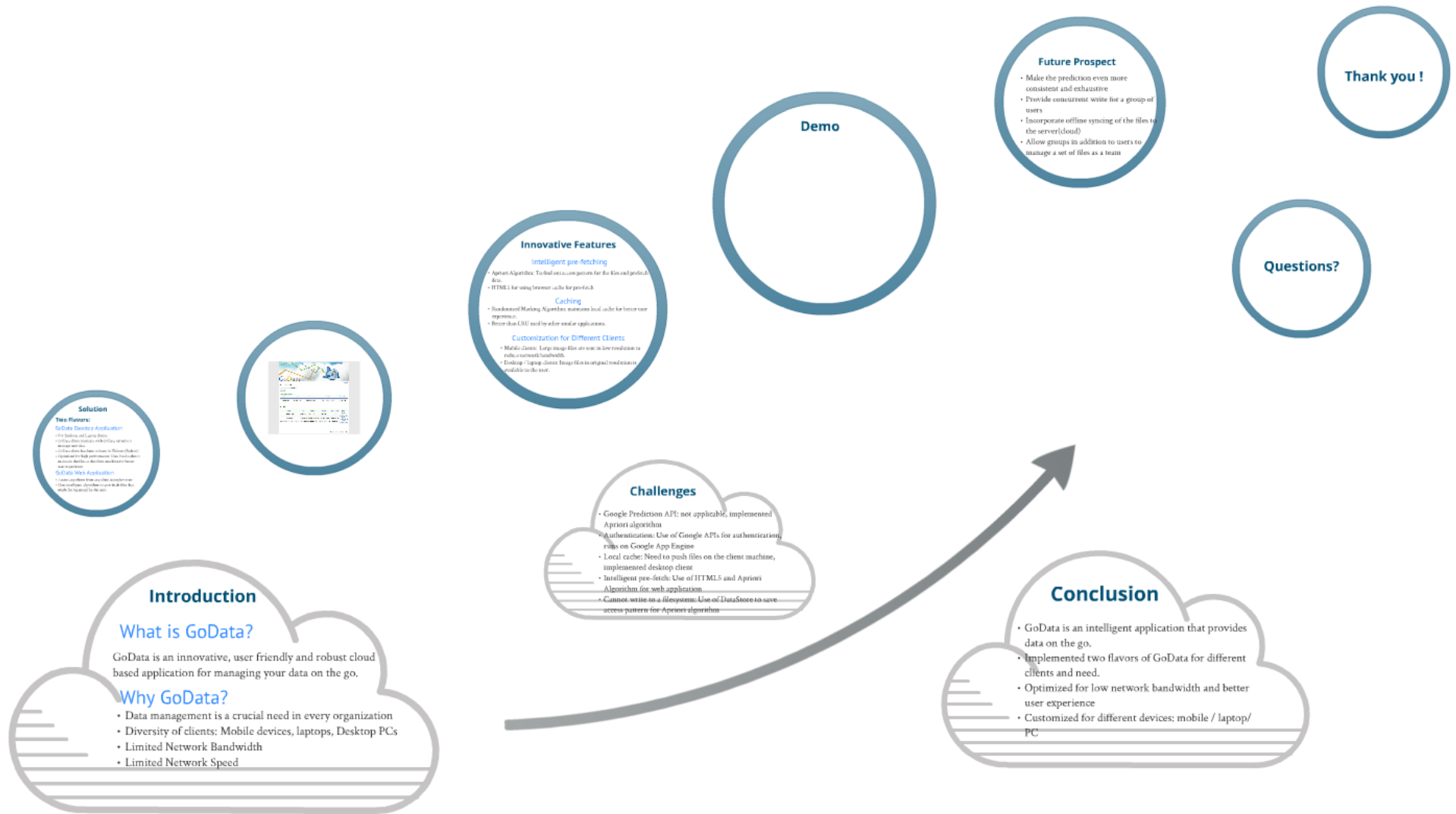


Go Data

COMSE6998 Major project

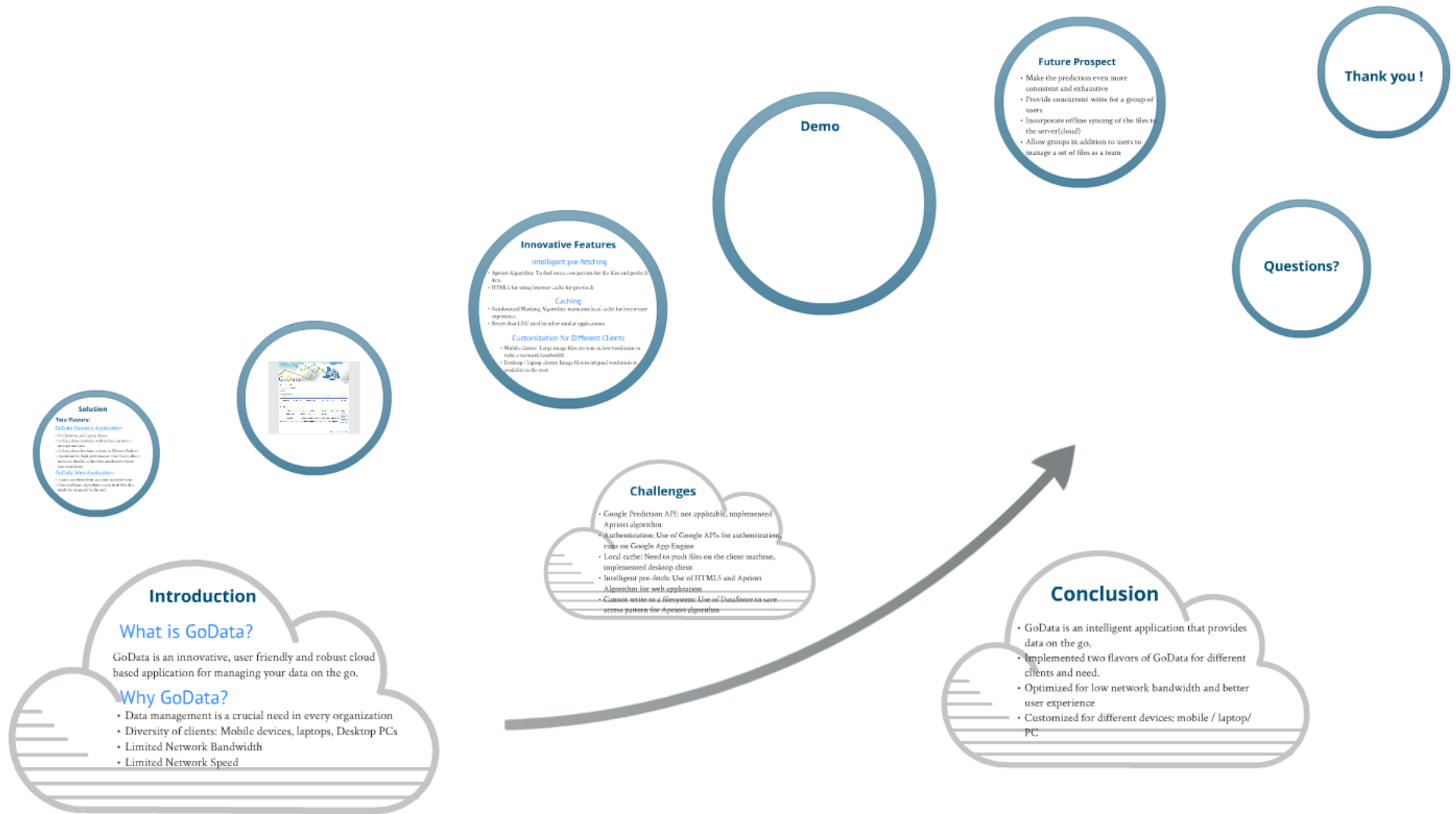
- Anahita Bhiwandiwalla: ab3744
- Digvijay Singh: ds3161
- Kuber Kaul: kk2872
- Payal Rani: pr2417



Go Data

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Introduction

What is GoData?

GoData is an innovative, user friendly and robust cloud based application for managing your data on the go.

Why GoData?

- Data management is a crucial need in every organization
- Diversity of clients: Mobile devices, laptops, Desktop PCs
- Limited Network Bandwidth
- Limited Network Speed

Solution

Two Flavors:

GoData Desktop Application

- For Desktop and Laptop clients
- GoData client interacts with GoData servers to manage user data
- GoData client has been written in Tkinter (Python)
- Optimized for high performance: Uses local cache to maintain the files at the client machine for better user experience

GoData Web Application

- Access anywhere from any client using browser
- Uses intelligent algorithms to pre-fetch files that might be requested by the user.

Challenges

- Google Prediction API: not applicable, implemented Apriori algorithm
- Authentication: Use of Google APIs for authentication, runs on Google App Engine
- Local cache: Need to push files on the client machine, implemented desktop client
- Intelligent pre-fetch: Use of HTML5 and Apriori Algorithm for web application
- Cannot write to a filesystem: Use of DataStore to save access pattern for Apriori algorithm



GoData

[Log Out](#)

Upload a file to GoData servers

File Uploaded Successfully!

Filename	Size	Uploaded by	Modified	Content Type
_DSC0981.JPG	5743961 bytes	test@example.com	May 8, 2013, 7:41 p.m.	Image/jpeg

Your Files

Filename	Size	Uploaded by	Modified	Content Type	Action
_DSC0981.JPG	5743961 bytes	test@example.com	May 8, 2013, 7:41 p.m.	Image/jpeg	Delete View Original File
appinsight.pdf	1673936 bytes	test@example.com	April 24, 2013, 9:23 p.m.	application/pdf	Delete View Original File
C360_2013-05-03-15-32-23-445.jpg	1197571 bytes	test@example.com	May 8, 2013, 7:26 p.m.	Image/jpeg	Delete View Original File

Innovative Features

Intelligent pre-fetching

- Apriori Algorithm: To find out access pattern for the files and prefetch data.
- HTML5 for using browser cache for pre-fetch

Caching

- Randomized Marking Algorithm: maintains local cache for better user experience.
- Better than LRU used by other similar applications.

Customization for Different Clients

- Mobile clients: Large image files are sent in low resolution to reduce network bandwidth.
- Desktop / laptop clients: Image files in original resolution is available to the user.



Future Prospect

- Make the prediction even more consistent and exhaustive
- Provide concurrent write for a group of users
- Incorporate offline syncing of the files to the server(cloud)
- Allow groups in addition to users to manage a set of files as a team

Conclusion

- GoData is an intelligent application that provides data on the go.
- Implemented two flavors of GoData for different clients and need.
- Optimized for low network bandwidth and better user experience
- Customized for different devices: mobile / laptop/
PC



Questions?



Thank you !