There are various applications that are useful for organization and collaboration among individuals as well as groups. Below, we describe the functionalities of Google Drive, Evernote, OneNote, BitBucket, and GitHub.

Google Drive is one of the file storage and synchronization services offered by Google. Google Drive provides users file storage, cloud services and collaborative editing. It offers different types of documents for users to create, edit and share such as Google Docs, Google Sheets, Google Slides, Google Forms and Google My Maps. It offers users storage up to 15GB for free. In general, Google Drive helps students to store files and access them whenever they have a connection to internet with a browser or a smartphone. Besides the web version, Google Drive has a desktop version synchronized with the web version. The desktop version can be installed on different PC’s and all of them will have the same image of data. This feature gives students easy access to files regarding classwork, slides and assignments. Google Drive provides a sharing functionality in which an individual can share same folder or google documents with other people including view and edit permissions. Therefore, students who work on group project can share the same folder and work on it in the same time. In addition to that, shared Google documents enable people to edit the same document with real time editing. Another feature that makes Google Drive a good platform for projects is the ability to exchange large files from a Gmail account. From the course perspective, Google Drive can be used as storage for courses’ files over the cloud to make it easily accessible for students. Furthermore, revisions can be used as a way of tracking and assessment for the work that has been completed. Google forms can be used in courses to create forms for the purpose of surveys, peer evaluation or voting for a decision. In programming classes, Google Drive has an API with the web based IDE ShiftEdit software that enables students to access and edit code files through their Google Drive account.

OneNote is a software application that enhances productivity by providing a platform for storing and organizing all notes and documents. It also provides the ability to store web pages and convert scanned documents into text using Optical Character Recognition (OCR). After the images are imported into OneNote, the text becomes searchable which can be useful for scanned documents. When storing web page screenshots, the links to the page are stored together for easy accessibility. All these activities can be done from various locations and devices at any time and OneNote will synchronize all the sources instantly. Also, it is much easier to upload information into OneNote even from outside the application. One method is by the “Email to OneNote” feature which enables users to send mails to me@onenote.com from configured email addresses to automatically save the email contents in OneNote. One instance where this can be useful is when a user receives an important email that needs to be stored; the user can just forward it to me@onenote.com without having to launch OneNote and then copy and paste. OneNote makes it easier to read your notes by providing colored tabbed sections and you can add any type of information (text, images, tables, graphs, attachments) to any position in your notebook. Basically, you can do most of the formatting that is associated with Microsoft Word. In addition, due to the fact that OneNote is a product of Microsoft, it provides easy integration with popular Windows applications such as Outlook, Word and Excel. OneNote can be used for easy collaboration when notebooks are shared among users. Each revision is stamped with a timestamp and editor name for easy referencing and auditing. Even when users are offline, the synchronization and merging can occur whenever they come online. Also, more than one member can work on the same page at the same time.

OneNote also provides an API (Application Programming Interface) which enables you to integrate OneNote capabilities into your software applications. In other words, by utilizing this API, your application possesses the access full capability of OneNote. For instance you could enable a user to send some interesting screenshots to OneNote without leaving your application. OneNote is available on most platforms – mobile devices, desktops, and via the web interface. Microsoft has taken off the pricing from OneNote thereby providing free access to this tool to students. OneNote is highly useful for students to take notes in class due to the way it organizes tabs and colored sections. In addition, students can work in groups by sharing some notebooks without worrying about how the separate note components (images, tables, web clips, audio, and videos) are stored. As regards storage, your notebooks can be stored locally or you can use Microsoft’s cloud storage product – OneDrive which provides 15GB for regular users and 1TB for Office365 users. This is very convenient for students.

Github is one of the best application services which offer many valuable features. It is an open source collaborative project development environment where one can manage and work on a project remotely. All team members can work on that particular project simultaneously, and retrofitting changes can be done with minimal effort. Getting started with Git is easy because one can just create a repository for a project where everyone can work collaboratively. People can either start building their own code or they can fork repositories from others. The application provides different features and it supports over 200 languages. Git also allows the owner of the project to provide or limit access to the other members of the project. In doing so, the owner can give appropriate access to people such that it does not allow unauthorized people to make changes to the project, which provides security and privacy. Github is a very user friendly application. When it becomes difficult to manage a team with a bigger size Github is a great solution where two or more people can work on a single document without merging the changes. Later on, it shows all the commits with all the code changes so that retrofitting can be done easily. The application is not only for the group projects, it is very useful for individual projects as well. For example, it enables the user to choose the level of privacy and also provides great features such as Pull Request by which a user can discuss and manage issues in live conversations. Although, Github primarily used for programming projects where a team can build their project collaboratively it can be used also for non-programming purposes as well by allowing users to save data, files, videos, tutorials etc. It is widely used by many classes of professionals.

BitBucket is a cloud source code hosting service similar to the GitHub. Unlike GitHub which hosts only Git repositories, BitBucket hosts both Git and Mercurial repositories. Drawing the comparison between BitBucket and GitHub is something that is done often since both tools offer similar services to their end users. BitBucket is a product of Atlassian. Atlassian also offers few other tools which can be integrated with the BitBucket in order to enhance the user experience by improving the functionality. The list of tools that are interesting in terms of what they had to offer for a project development team are: SourceTree, JIRA, Confluence and Bamboo. SourceTree is the Git client for both Windows and Mac platforms. The tool is free to use as long as you have a working BitBucket account. Bamboo is another interesting tool of the lot. Continuous Integration has become the de facto deployment model for several startups as of late. Bamboo offers a very good platform for the project development team to deploy the small fixes into the production environment very effectively with minimal effort.This application is particularly useful for the programming related assignments, both individual and group. It is very important to keep track of all the series of changes, commits and releases for any individual developer or a group of developers. This tools might not be very useful as such for non-programming related assignments. The major difference between GitHub and BitBucket is the pricing model. Although GitHub is tightly integrated with Git, the fact that one has to pay a premium to maintain a private repository forces a developer to hunt for other options. BitBucket generates its revenue on scale of the number of users on a repository. You can have unlimited number of private repositories on BitBucket but with only five users to access it. If you have a private repository which has more than 5 users then you should start paying a premium.

Evernote is free software that excels at organizing notes and archives. A note can come in various forms, from text to photographs to a webpage or a voice memo, and notes can also have attachments as well. Notes can be synchronized to Evernote on the web, which can allow users to access their notes from any pc or mobile device anywhere. Evernote would assist in individual assignments or projects in that it allows notes to be organized via Notebooks and archived easily, which means that finding the information you need can be done fairly quickly. Individual classes can be broken up into Notebooks, and then assignments could be made into notes. The same applies to projects, where a person's individual projects could be categorized into Notebooks, and broken down from there into Notes. It would be a very beneficial piece of software to keep an individual organized. The application could aid in group project and assignments much in the same way that it does for the individual, except that Evernote allows notes and Notebooks to be shared. Thus, giving a group project/assignment an organized collective space where documents can be edited and shared collaboratively and in real time. The application could be used for programming courses in such a way that Notebooks could be considered programs, and Notes could be considered classes or other related components of the program. Therefore, all of the different elements of the program could be organized together under the complete program umbrella. Evernote could be used for non-programming courses in the same way that it could be used for individual projects and assignments, where a course could be considered a Notebook and all the assignments are Notes. Overall, Evernote is a great way to organize information via Notebooks and tags, and allows information to be accessed and modified easily and quickly.

Links

<https://www.evernote.com/shard/s459/sh/8a87e105-7e16-45f8-af9a-4d3e5f996a5a/b04c86c3f0d95eb74ed8c8804f252f0a>

<https://drive.google.com/open?id=1XWD_n379ze_WzVvoh60qV7fNslajq3OPRPg2aL2ZT1s&authuser=0>

<https://github.com/revantharjula/IT496-groupassignment1>

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