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# Git Hub Investigation

## Register for GitHub

Go to <https://github.com/> and register with an email address.

## Set up a Project

<https://github.com/jezsmith/SITSDEV-Projects>

### Organizations

Instead of creating a personal repository GITHUB has organizations that allow multi users to work on/use the same repositories. I have created the organisation <https://github.com/SITSDev-Projects>

## Using the Windows GU

It seems pretty simple to update your local folder with files, then ‘Commit’ the changes in your local GitHub, then ‘Sync’ to the cloud.

This all needs to be done via the command line for the SITS implementation.

The online help says you have to open ‘Git Shell’ This seems to work in a PowerShell window, but not in a command prompt window. – Downloading git allows you to use git commands in the command prompt window

See <https://help.github.com/articles/set-up-git/> for more information.

## Storage Limits

<https://help.github.com/articles/what-is-my-disk-quota/>

They recommend that repositories are kept under 1gb for performance reasons and files are a max of 100mb.

## Command line stuff

When creating a local folder to be used for storing/pushing/pulling files with GITHUB the folder needs to be initialised first and pointed to the remote repository. GITHUB provides this code when creating a new repository. Could we create a default batch file for initialisation and just pass in the new path/remote repository URL.

### GIT

<http://git-scm.com/downloads>

It seems we have to download GIT to allow use of GIT commands in the command prompt.

I have been using GIT installed on my machine but we will need a location with GIT installed that we point too in the batch file.

<http://en.wikipedia.org/wiki/Git_%28software%29>

### Commands I have mainly been using

git init - initial initialisation of folder to allow GIT commands to be used with the location

git remote add origin <<URL>>– maps local repository to remote URL (<https://github.com/DarrenDexter/SITSDev-Projects.git>)

git remote –v – Check remote repository status

git status – Tells you the status of the folder,(any unprocessed files)

git add <<file\_name>> – Takes a snapshot of the repository as it stands

git commit –m <<file\_name>> - Commits the changes the file

git push – upload changes to remote repository

git pull-pull all files from remote repository

### Setting up new repository in command line

git init

git commit -m "first commit"

git remote add origin https://github.com/DarrenDexter/DarrenTest.git

git push -u origin master

This code is provided by GITHUB after new repository creation

Change repository with git remote set-url origin

### Simple send everything in directory to repository

git add -A

git commit -m "Commit Message"

git push

You are required to enter your GITHUB user name/password for every run of the batch file as it is pushing data to the remote repository.

git config –global credential.helper wincred - This function sets GIT up to save user name/password after the next time it is emptied

<https://help.github.com/articles/why-is-git-always-asking-for-my-password/>

There are two batch files in the folder \\TM2 - Geek Clique (Interfaces)\Documentation\GitHub that provide basic push/pull functions. These run for the same folder that has already been initialised and directed at the repository https://github.com/SITSDev-Projects/SITS.git.

## Git Cheat Sheet

<https://training.github.com/kit/downloads/github-git-cheat-sheet.pdf>

## 

## Register for the developer program

Oh dear, this seems to be pay for only:

The best way to integrate with GitHub.

Top of Form

In order to register for the developer program, you must be on a paid plan.[Sign up for one](https://github.com/settings/billing), or pick a different account to register with.

Using the developer program seems to be the best way for us to build an interface, as using it purely from a command line would result in just two buttons on a form that a user could quite easily run manually themselves.

### Libraries

There are multiple Libraries already available, including .NET

<https://developer.github.com/libraries/>

### Webhooks

Seems to be GITHUBs own version of TUP, in that when an event is trigged (PUSH) it will send a HTTP POST payload to a configured URL. Depending on how close in sync we want any changes this could be used in for the interface.

<https://developer.github.com/webhooks/>