## **Build Automation Test Documentation**

Please find functions implemented all parts of the desired build automation tool.

Use it as follows;

Currently my test environment is ubuntu 18.04 machine to develop util and run scripts to build C++ projects.

Python3 version is 3.4 installed on virtual machine.

VM needs git, g++, python3 installed and ssh key added to the git repository environment for scripts to work properly.

Config.ini file declares smtp settings and paths, i would use mail relay application to send e-mails from machine which brings more security rather than reading config from file. For the sake of security i used ssh authentication method for github authentication. Otherwise it can ask for username and password and should be entered manually. Please provide them manually for the moment if you don’t want to deal with ssh keys.

To avoid this, it's better to setup SSH keys as here - <https://help.github.com/articles/connecting-to-github-with-ssh/>

**Steps for test utility**

1. Clone the repository  
git clone <https://github.com/suhasulun/Test.git>  
or  
git pull  
  
2. Run the automated build script (I'm using the command "python3". Use the appropriate command on your machine)

$ python3 automated\_build.py --config\_file config.ini

Successful builds should build applications and if there are changes script should commit changed files and push to the repository.

Failing builds send e-mail with script logs and stderr output to receiver which is in config file and do not update code repository.  
  
Reusability of this application relies on changing just build\_script for project names and binary file names along with adding script to respective repository.