Documentation for login.py

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This file contains functions and API's which help with logging into the login server and authentication.

Functions:

```
def sign_in(username,password,location):
```

This function checks if the login information provided by the user is valid

Inputs: username (string) password (string)

location (string)

Output: None

def sign_out():

This function logs the user off by calling the login server's /logout API

Input: None

Output: None

def authorise_user_login(username,password,location):

This function calls the login server's /report API to validate user login information and to log them on. Will return '0' if login is successful, '1' otherwise

Inputs: username (string)

password (string)

location (string)

Output: '0' or '1' (string)

```
def check_code(code):
```

This function checks the 2fa code provided by the user

Input: code (string)

Output: None

def generate_2fa_code():

This function generates a code for 2 factor authentication

Input: None

Output: code (string)

def send_code(code,username):

This function sends the 2fa code to the user's university email

Input: code (string)

Output: None

def report_to_server(url):

This function creates a global thread which is used to report to the login server while the application is open. This thread is stopped in the sign_out() function.

Input: url (string, url calls the login server's /report API to stay logged in)

Output: None

def save user(username, hashed pw):

This function saves the login information of the current user to a text file, so that when the program exits, there is semi-global information to call the /logoff API

Inputs: username (string)

hashed_pw (string)

Output: None