How to deploy

1) Install prerequisites
    a) Download the MySql connector for python
       (https://www.mysql.com/products/connector/)
    b) Install requirements by opening a terminal, swap to the coursework directory and
       run "pip3 install -r requirements.txt"
    c) Install Google Cloud SDK (https://cloud.google.com/sdk/)
2) Set up Google Cloud DB
    a) Go to the Google cloud console (https://console.cloud.google.com) and create a
       new project
    b) Create a Cloud SQL instance running MySQL
    c) Once the instance has been created, go to the dashboard for the instance and go
       to connections. For the purpose of the test, check the public ip address box and
       add 0.0.0.0/0 to the authorised networks tab; this should later be changed to the
       IP address of the google compute engine for security reasons.
3) Set up DB connection
    a) Go to the coursework directory and navigate to /cloudmusic/settings.py
    b) At approximately line 77 change the database information to the database you
       created in step 2
    c) Go back to the coursework directory and open a terminal instance, here enter the
       following commands:
        i) "Python3 manage.py migrate" this should add the various auto generated
           tables specified by django to your database
        ii) "Python 3 manage.py makemigrations webinterface" this should add
            tables relevant to our project to the database
4) Set up app engine
    a) Go to the google cloud console
    b) Create a new App Engine instance, take note of the public address on the right of
       the screen
    c) Go to https://developers.google.com/identity/sign-in/web/sign-in and click the
       blue box that says configure
    d) In the next form select web server and then under Authorized redirect URIs put
       your public address. Take note of your client id which has been created.
    e) Go to /cloudmusic/webinterface/views.py and at approximately line 30, replace
       "599761015615-krb4hqvd1m6nsl18r1am0glvcbdakb3d" with your client id
    f) Next go to /cloudmusic/webinterface/templates/webinterface/html/ on index.html,
       homepagelogin.html and library.html change the meta tag
       (name="google-signin-client_id") with the client id you created earlier
5) Deploy to app engine:
    a) Open a terminal in the coursework directory and type gcloud app deploy, if
       prompted to select a project, use the project created earlier.
    b) Type gcloud app browse, and the web page should open in your default browser
       with the web application deployed on it