**WIDGET CUSTOMIZATION APPLICATION MANUAL**

Updated; 8/4/2017

**AWS Infrastructure Specification**

Image: ami-05c1fa8df71875112 (ubuntu)

Instance size: t2.micro

Latest DNS: http://ec2-3-15-181-26.us-east-2.compute.amazonaws.com

Current runtime: Python 3.7.4 (v3.7.4:e09359112e, Jul 8 2019, 14:54:52)

To Configure new Instance:

* Create new instance with above parameters
* Get \*.pem key file from team lead
* Usee SSH to access
* Run: sudo apt update
* Run: sudo apt install python3 python3-pip python3-pytest pylint3 gunicorn3

**To Deploy a new version of WCT**

* Notify team of upcoming deploy
  + Use shared team inbox
  + Email all dependent teams and users
* Copy source from team file server to local
* Open directory for latest release
* Create python virtual environment
  + `python3 -m venv [env name]`
  + Activate virtual env
  + Install dependencies in virtual env
    - `pip3 install --no-cache -r wct\_app/requirements.txt`
* Set local environment variables:
  + WCT\_VERSION={current version}
  + SECRET\_SAUCE={integer b/w 1 and 10}
  + PATH\_TO\_DATA\_FILE={~/path/to/wct\_app/data}
* Check security of installed requirements
  + Run: `safety check`
* Change directory to `wct\_app/…`
* Lint and test code:
  + Run: `pylint --errors-only \*\*/\*.py`
  + Run: `pytest --disable-warnings --quiet tests/wct\_tests.py`
* Access existing instance
  + Run: `ssh -i "~/wct-files/wct-app-kp.pem" ubuntu@[INSTANCE DNS/PUBIP]`
* Terminate web server process
  + Run: `sudo service nginx stop`
* Terminate gunicorn3 workers
* Remove all third party modules
  + Run: `pip3 uninstall -y -r wct\_app/requirements.txt`
* Delete source code on existing instance
  + Run: `rm -rf wct\_app/`
* Copy latest version source from local to remote
  + Run: `scp -r -i ~/wct-files/wct-app-kp.pem ~/path/to/latest/wct\_app ubuntu@[INSTANCE DNS/PUBIP]:/home/ubuntu/`
* Update environment variables on remote:
  + WCT\_VERSION={current version}
  + SECRET\_SAUCE={integer b/w 1 and 10}
  + PATH\_TO\_DATA\_FILE=/home/ubuntu/wct\_app/data
* Install requirements
  + Run: `pip3 install --no-cache -r wct\_app/requirements.txt`
* Run test script on remote
  + Run: `pytest-3 --disable-warnings wct\_app/tests/wct\_tests.py`
* Start application process:
  + Run: `gunicorn -D -w 4 --log-level debug --capture-output --error-logfile errors.log wct\_app.main.app:APP`
* Start web server process
  + Run: `sudo service nginx start`
* Verify 200 response:
  + Run: `curl -X POST <http://[INSTANCE> DNS]/api/v0/widgetize -d '{"widget\_material":"make me a widget!"}'`
* Notify team of successful deploy
  + Use shared team inbox
  + Email all dependent teams and users