**Deployment Backend Flask App (Heroku)**

* Have a requirements.txt file
  + Also add gunicorn to requirements.txt
* Name your application app.py
* **In Python File for Webdriver:**
  + chrome\_options = webdriver.ChromeOptions()
  + chrome\_options.binary\_location = os.environ.get("GOOGLE\_CHROME\_BIN")
  + chrome\_options.add\_argument("--disable-dev-shm-usage")
  + chrome\_options.add\_argument("--no-sandbox")
  + chrome\_options.add\_argument("--headless")
  + \n
  + driver = webdriver.chrome(executable\_path="CHROMEDRIVER PATH", chrome\_options=chrome\_options)
* **Create Procfile (contents)**
  + web: gunicorn app:app
* Create Heroku Project
* Selected Project -> Settings -> Add buildpack
  + Add Python
  + Add <https://github.com/heroku/heroku-buildpack-google-chrome> (for chrome)
  + Add <https://github.com/heroku/heroku-buildpack-chromedriver> (for chromedriver)
* Click Reveal config vars
  + Add the following (Environmental variables)
  + KEY = CHROMEDRIVER\_PATH, VALUE = /app/.chromedriver/bin/chromedriver
  + KEY = GOOGLE\_CHROME\_BIN, VALUE = /app/.apt/usr/bin/google-chrome
* **Initial git:** git init
* **Add all files to git:** git add .
* **Commit file to git:** git commit -m “commit message”
* **Clone to Heroku git:** heroku git:remote -a meme-generator-flask
* **Publish to Heroku:** git push heroku master
* **App Link:** <https://meme-generator-flask.herokuapp.com>

**Tutorials Followed**

* <https://www.youtube.com/watch?v=Ven-pqwk3ec>

**React Deployment (Heroku)**

* <https://medium.com/better-programming/how-to-deploy-your-react-app-to-heroku-aedc28b218ae>
* Deployment steps
  + Create build folder = npm run build
  + In root folder (memeproj) create server folder
  + In server folder, create server.js file (will use express)
  + To install express: npm install express --save
  + In server.js file add

const path = require('path');  
const express = require('express');  
const app = express();  
const publicPath = path.join(\_\_dirname, '..', ‘build’);  
const port = process.env.PORT || 3000;

app.use(express.static(publicPath));

**app.get('\*', (req, res) => {  
 res.sendFile(path.join(publicPath, 'index.html'));  
});**

app.listen(port, () => {  
 console.log('Server is up!');  
});

* + To test if server is running inside root folder (memeproj) -> node server/server.js
  + Next is to deploy to Heroku
    - Change “start” in package.json from “react-scripts start” TO “node server/server.js”
  + Initialize git repo (in root folder, already has .gitignore files) -> git add . -> git commit -m “commit message”
  + heroku git:remote -a meme-generator-nn-app (to add existing git repo to Heroku)
  + git push Heroku master (to build application)
* **App Link**: <https://meme-generator-nn-app.herokuapp.com/>

meme-generator-nn-app