



Data Glacier

Your Deep Learning Partner

Cloud and API deployment

Batch code: LISP01

Submission date: 26 March, 2021

Submission to: Data Glacier

Agenda

Environment creation
Configuring Heroku
Deployment into Heroku
Deployment Test

Environment creation

Environment created

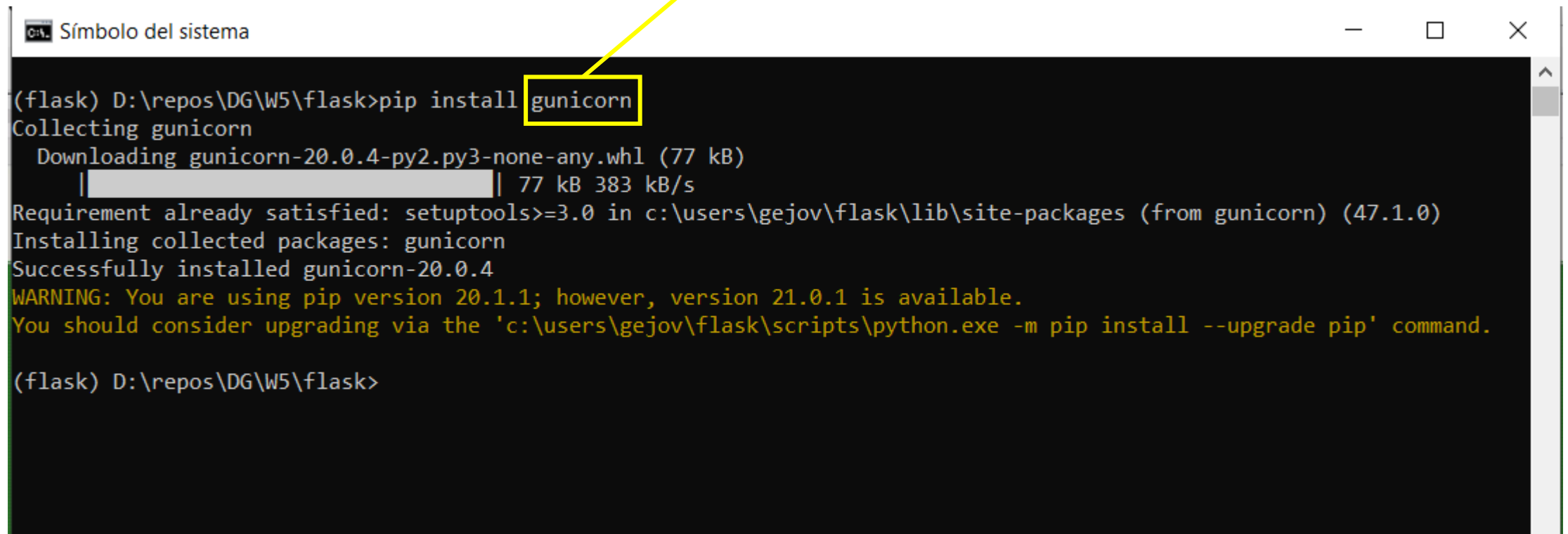


```
Símbolo del sistema
(flask) D:\repos\DG\W5\flask>
```

Environment creation

Installing libraries

HTTP Server



```
Símbolo del sistema

(flask) D:\repos\DG\W5\flask>pip install gunicorn
Collecting gunicorn
  Downloading gunicorn-20.0.4-py2.py3-none-any.whl (77 kB)
    | 77 kB 383 kB/s
Requirement already satisfied: setuptools>=3.0 in c:\users\gejov\flask\lib\site-packages (from gunicorn) (47.1.0)
Installing collected packages: gunicorn
Successfully installed gunicorn-20.0.4
WARNING: You are using pip version 20.1.1; however, version 21.0.1 is available.
You should consider upgrading via the 'c:\users\gejov\flask\scripts\python.exe -m pip install --upgrade pip' command.

(flask) D:\repos\DG\W5\flask>
```

Environment creation

Saving libraries version to deployment

```
Símbolo del sistema

(flask) D:\repos\DG\W5\flask>pip freeze
click==7.1.2
Flask==1.1.2
gunicorn==20.0.4
itsdangerous==1.1.0
Jinja2==2.11.3
joblib==1.0.1
MarkupSafe==1.1.1
numpy==1.20.1
scikit-learn==0.23.2
scipy==1.6.1
threadpoolctl==2.1.0
Werkzeug==1.0.1
WTForms==2.3.3
```

```
Símbolo del sistema

(flask) D:\repos\DG\W5\flask>pip freeze > requirements.txt

(flask) D:\repos\DG\W5\flask>
```

Configuring Heroku

Creating User

The screenshot shows the Heroku dashboard interface. At the top, there is a navigation bar with the Heroku logo, a search bar containing the text "Jump to Favorites, Apps, Pipelines, Spaces...", and a user profile icon. Below the navigation bar is a purple banner with the text "Welcome to Heroku" and "Now that your account has been set up, here's how to get started." To the right of the banner is a user profile dropdown menu showing the user's name "Gerson Orihuela", email "sunstreaker.cynos@gmail.com", and options for "Account settings", "Notifications", and "Sign out". The main content area features two primary actions: "Create a new app" and "Create a team". Below these, there is a section titled "Looking for help getting started with your language?" with a link to "Get started by reading one of our language guides in the Dev Center". At the bottom, there is a row of language icons: Node.js, Ruby, Java, PHP, Python, Go, Scala, and Clojure.

HEROKU

Jump to Favorites, Apps, Pipelines, Spaces...

Welcome to Heroku
Now that your account has been set up, here's how to get started.

Gerson Orihuela
sunstreaker.cynos@gmail.com

Account settings

Notifications

Sign out

Create a new app

Create your first app and deploy your code to a running dyno.

Create new app

Create a team

Create teams to collaborate on your apps and pipelines.

Create a team

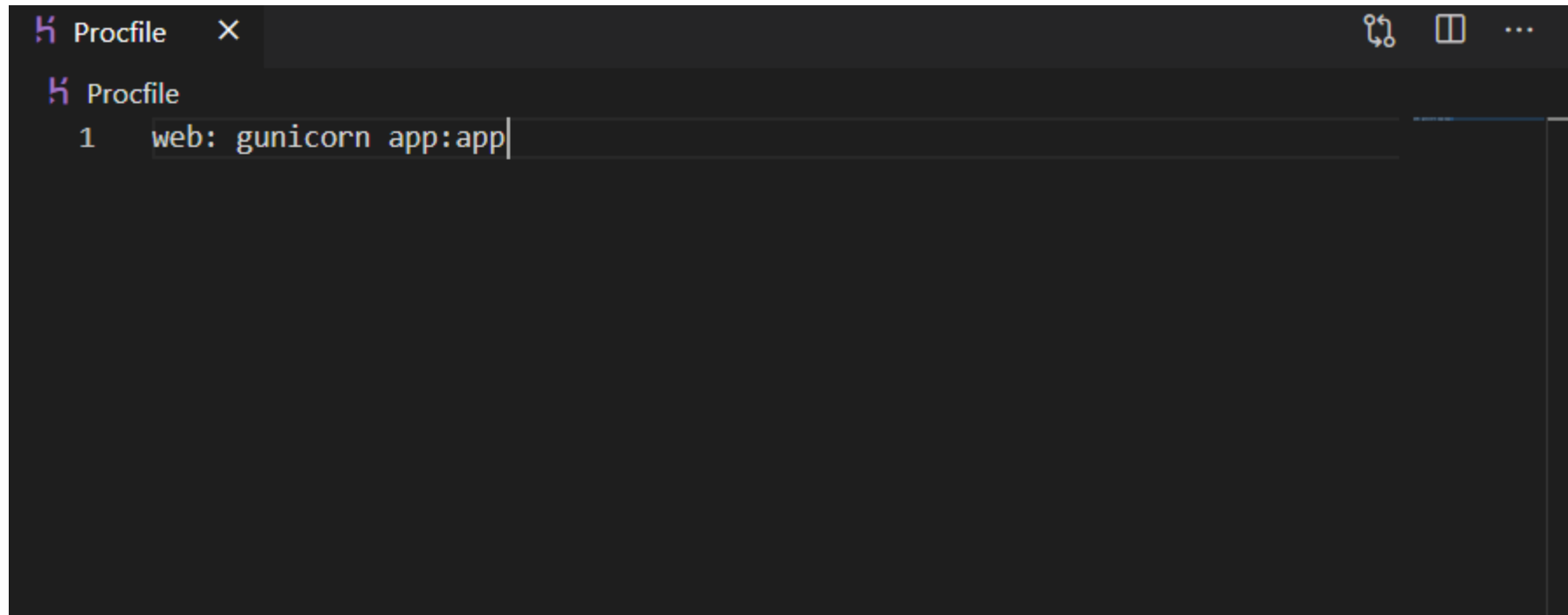
Looking for help getting started with your language?

Get started by reading one of our language guides in the Dev Center

Node.js Ruby Java PHP Python Go Scala Clojure

Configuring Heroku

Saving file for gunicorn

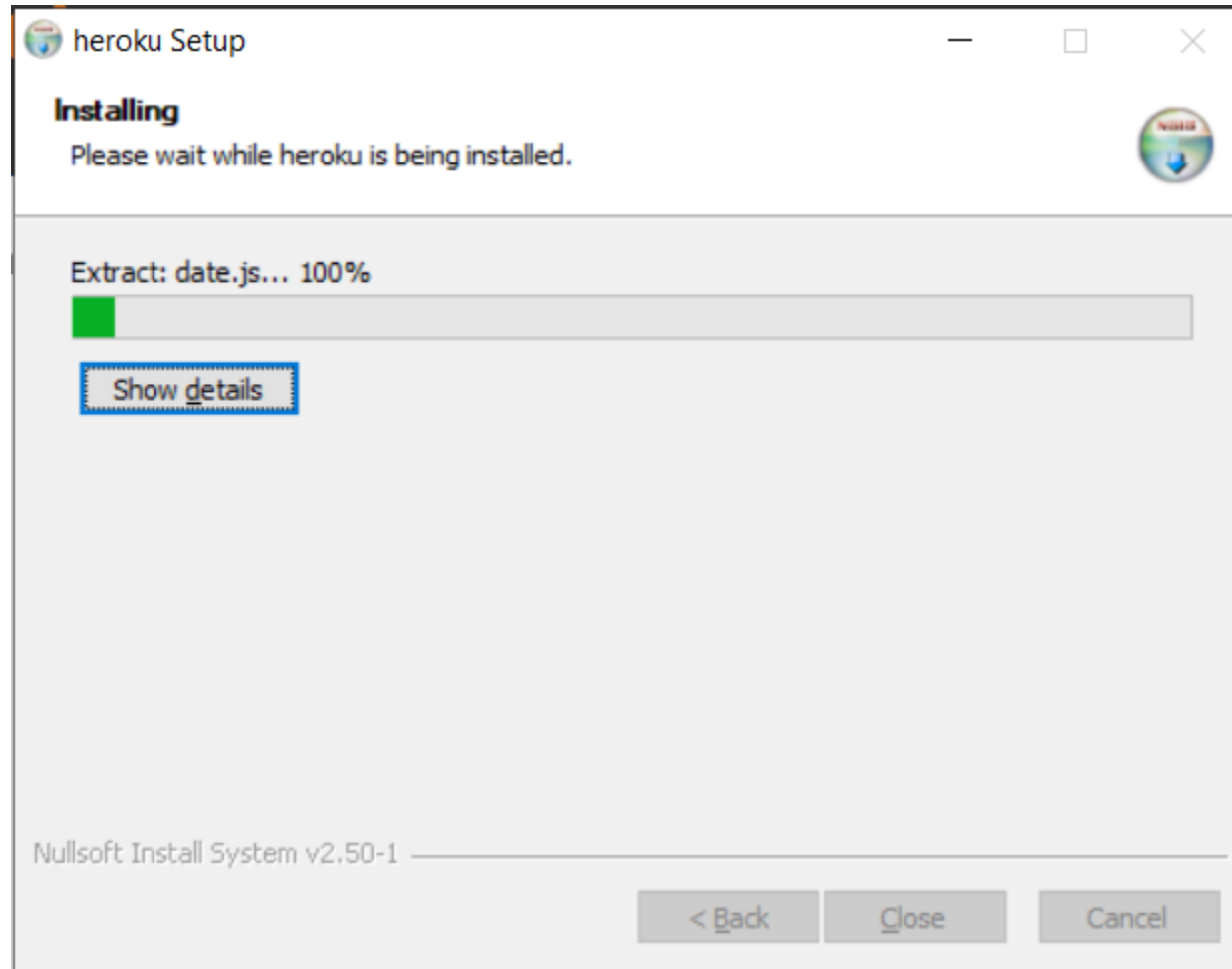


```
Procfile
1 web: gunicorn app:app
```

The image shows a code editor window with a dark theme. The title bar at the top reads 'Procfile' with a close button on the right. The editor content shows a file named 'Procfile' containing a single line of text: '1 web: gunicorn app:app'. The text is white on a dark background, and the line number '1' is visible on the left margin.

Configuring Heroku

Installing Heroku CLI




Configuring Heroku

Creating Heroku App



```
(flask) D:\repos\DG\W5\flask>heroku create
» Warning: Our terms of service have changed: https://dashboard.heroku.com/terms-of-service
Creating app... !
! Invalid credentials provided.
heroku: Press any key to open up the browser to login or q to exit:
Opening browser to https://cli-auth.heroku.com/auth/cli/browser/18d23448-a5cc-4803-bd73-c1c49516283d?requestor=SFMyNTY.g
2gDbQAAAA4xOTAuMjMyLjc0LjIxOG4GAElHfWF4AWIAAVGA.YxOC4aadHhOLxP0S9xfwb2fSAfSwTxZV0xtIfHJY10A
Logging in... done
Logged in as sunstreaker.cynos@gmail.com
Creating app... done, ⚙ fathomless-citadel-82794
https://fathomless-citadel-82794.herokuapp.com/ | https://git.heroku.com/fathomless-citadel-82794.git
```


Configuring Heroku


Created App into Heroku

 **HEROKU**


Jump to Favorites, Apps, Pipelines, Spaces...


 


 Personal ↕


 **Welcome to Heroku**
Now that your account has been set up, here's how to get started.


[Show next steps](#)


 Filter apps and pipelines


 fathomless-citadel-82794

**Gerson Orihuela**
sunstreaker.cynos@gmail.com

 Account settings

 Notifications

 Sign out

heroku-20 • United States 

Deployment into Heroku

Commands for deployment

The screenshot displays the Heroku CLI documentation page. The header includes the Heroku logo, a search bar with the text "Jump to Favorites, Apps, Pipelines, Spaces...", and a user profile dropdown menu. The main content area is divided into three columns. The left column, titled "Deploy using Heroku Git", provides instructions on using Git for deployment. The middle column, titled "Install the Heroku CLI", details the installation process and includes a terminal snippet for logging in. The right column, titled "Create a new Git repository", shows the steps to initialize a new repository and push it to Heroku, followed by a note about changing the default deploy branch. A bottom section, "Existing Git repository", provides the command to add the Heroku remote to an existing repository.

HEROKU Jump to Favorites, Apps, Pipelines, Spaces...

Deploy using Heroku Git
Use git in the command line or a GUI tool to deploy this app.

Install the Heroku CLI
Download and install the [Heroku CLI](#).
If you haven't already, log in to your Heroku account and follow the prompts to create a new SSH public key.

```
$ heroku login
```

Create a new Git repository
Initialize a git repository in a new or existing directory

```
$ cd my-project/  
$ git init  
$ heroku git:remote -a fathomless-citadel-82794
```

Deploy your application
Commit your code to the repository and deploy it to Heroku using Git.

```
$ git add .  
$ git commit -am "make it better"  
$ git push heroku master
```

You can now change your main deploy branch from "master" to "main" for both manual and automatic deploys, please follow the instructions [here](#).

Existing Git repository
For existing repositories, simply add the `heroku` remote

```
$ heroku git:remote -a fathomless-citadel-82794
```

User Profile Dropdown:
Gerson Orihuela
sunstreaker.cynos@gmail.com
Account settings
Notifications
Sign out

Deployment into Heroku

Following prompts

```
(flask) D:\repos\DG\W5\flask>heroku login
heroku: Press any key to open up the browser to login or q to exit:
Opening browser to https://cli-auth.heroku.com/auth/cli/browser/a2c35554-7098-4759-870a-a42792569112?requestor=SFMyNTY.g
2gDbQAAAA4xOTAuMjMyLjc0LjIxOG4GAA3qhWF4AWIAAVGA.W1RU52GUcr1pwjGK-lwNWgFrSAc0Ns2TiJOx2wv_5yE
Logging in... done
Logged in as sunstreaker.cynos@gmail.com

(flask) D:\repos\DG\W5\flask>git init
Initialized empty Git repository in D:/repos/DG/W5/flask/.git/

(flask) D:\repos\DG\W5\flask>heroku git:remote -a fathomless-citadel-82794
set git remote heroku to https://git.heroku.com/fathomless-citadel-82794.git

(flask) D:\repos\DG\W5\flask>git add .

(flask) D:\repos\DG\W5\flask>git commit -am "make it better"
[master (root-commit) 4db0f08] make it better
8 files changed, 231 insertions(+)
create mode 100644 Procfile
create mode 100644 app.py
create mode 100644 model/finalized_model.sav
create mode 100644 requirements.txt
create mode 100644 static/css/123.jpg
create mode 100644 static/css/html.jpg
create mode 100644 static/css/styles.css
create mode 100644 templates/registrarse.html
```

Deployment into Heroku

Following prompts

Done deployment

```
(flask) D:\repos\DG\W5\flask>git push heroku master
Enumerating objects: 20, done.
Counting objects: 100% (20/20), done.
Delta compression using up to 4 threads
Compressing objects: 100% (16/16), done.
Writing objects: 100% (20/20), 24.16 MiB | 1.05 MiB/s, done.
Total 20 (delta 4), reused 0 (delta 0), pack-reused 0
remote: Compressing source files... done.
remote: Building source:
remote:
remote: -----> Building on the Heroku-20 stack
remote: -----> Determining which buildpack to use for this app
remote: -----> Python app detected
remote: -----> Installing python-3.6.13
remote: -----> Installing pip 20.1.1, setuptools 47.1.1 and
remote: -----> Installing SQLite3
remote: -----> Installing requirements with pip
remote: Collecting click==7.1.2
remote:   Downloading click-7.1.2-py2.py3-none-any.whl (82 kB)
remote: Collecting Flask==1.1.2
remote:   Downloading Flask-1.1.2-py2.py3-none-any.whl (95 kB)
remote: Collecting gunicorn==20.0.4
remote:   Downloading gunicorn-20.0.4-py2.py3-none-any.whl (130 kB)
remote: Collecting itsdangerous==1.1.0
remote:   Downloading itsdangerous-1.1.0-py2.py3-none-any.whl (16 kB)
remote: Collecting Jinja2==2.11.3
remote:   Downloading Jinja2-2.11.3-py2.py3-none-any.whl (125 kB)
remote: Collecting joblib==1.0.1
remote:   Collecting numpy==1.19.5
remote:     Downloading numpy-1.19.5-cp36-cp36m-manylinux2010_x86_64.whl (14.8 MB)
remote:   Collecting scikit-learn==0.23.2
remote:     Downloading scikit_learn-0.23.2-cp36-cp36m-manylinux1_x86_64.whl (6.8 MB)
remote:   Collecting scipy==1.5.4
remote:     Downloading scipy-1.5.4-cp36-cp36m-manylinux1_x86_64.whl (25.9 MB)
remote:   Collecting threadpoolctl==2.1.0
remote:     Downloading threadpoolctl-2.1.0-py3-none-any.whl (12 kB)
remote:   Collecting Werkzeug==1.0.1
remote:     Downloading Werkzeug-1.0.1-py2.py3-none-any.whl (298 kB)
remote:   Collecting WTForms==2.3.3
remote:     Downloading WTForms-2.3.3-py2.py3-none-any.whl (169 kB)
remote:   Installing collected packages: click, itsdangerous, MarkupSafe, Jinja2, Werkzeug, Flask, gunicorn, joblib,
remote:     numpy, threadpoolctl, scipy, scikit-learn, WTForms
remote:   Successfully installed Flask-1.1.2 Jinja2-2.11.3 MarkupSafe-1.1.1 WTForms-2.3.3 Werkzeug-1.0.1 click-7.1.2
remote:     gunicorn-20.0.4 itsdangerous-1.1.0 joblib-1.0.1 numpy-1.19.5 scikit-learn-0.23.2 scipy-1.5.4 threadpoolctl-2.1.0
remote: -----> Discovering process types
remote:   Procfile declares types -> web
remote: -----> Compressing...
remote:   Done: 125.4M
remote: -----> Launching...
remote:   Released v3
remote:   https://fathomless-citadel-82794.herokuapp.com/ deployed to Heroku
remote:
remote: Verifying deploy... done.
To https://git.heroku.com/fathomless-citadel-82794.git
 * [new branch]      master -> master
```

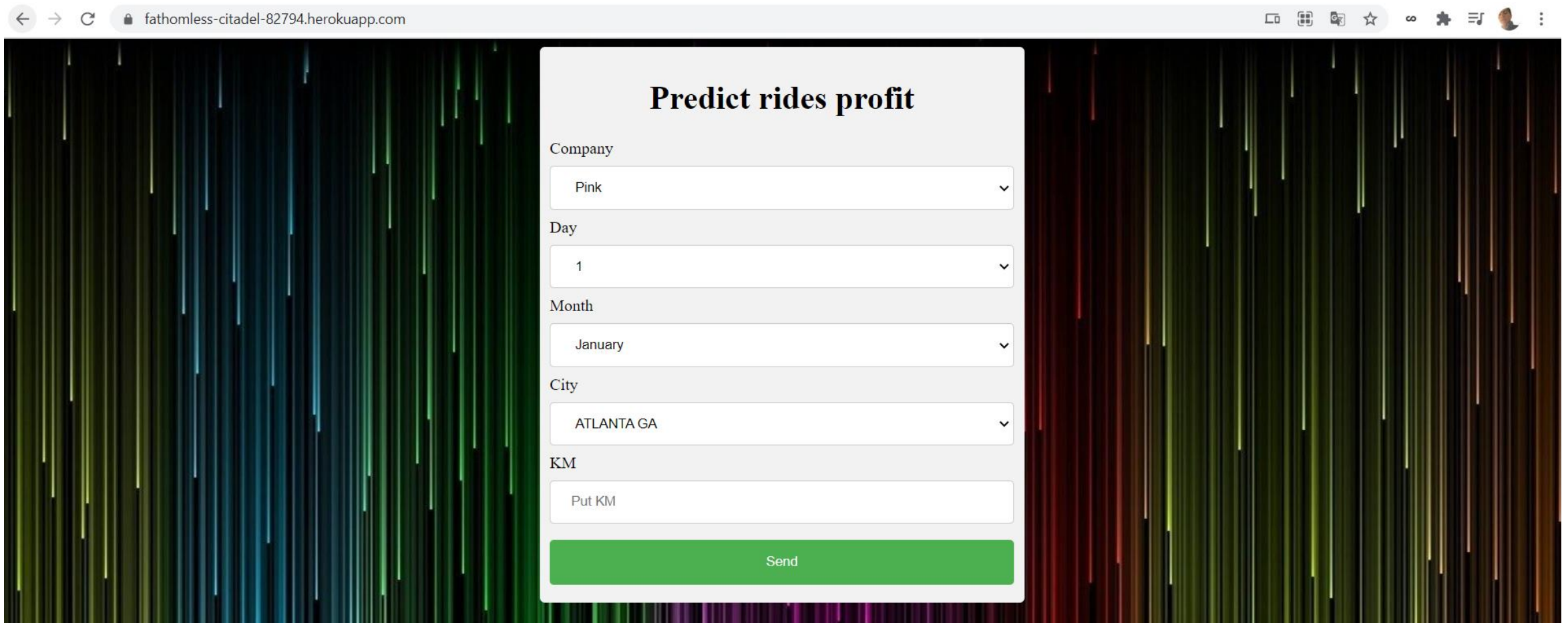
Deployment Test

URL for Implemented Model

<https://fathomless-citadel-82794.herokuapp.com/>

Deployment Test

Inserting URL



A screenshot of a web browser displaying a form titled "Predict rides profit". The browser's address bar shows the URL "fathomless-citadel-82794.herokuapp.com". The form is centered on a dark background with vertical streaks of light. The form contains five dropdown menus for "Company", "Day", "Month", and "City", and a text input field for "KM". The "Company" dropdown is set to "Pink", "Day" to "1", "Month" to "January", and "City" to "ATLANTA GA". The "KM" field contains the text "Put KM". A green "Send" button is at the bottom of the form.

← → ↻ 🔒 fathomless-citadel-82794.herokuapp.com

Predict rides profit

Company
Pink ▼

Day
1 ▼

Month
January ▼

City
ATLANTA GA ▼

KM
Put KM

Send

Deployment Test

Testing App

← → ↻ fathomless-citadel-82794.herokuapp.com/upload

Predict rides profit

Company

Pink ▾

Day

1 ▾

Month

January ▾

City

ATLANTA GA ▾

KM

Put KM

Send

The profit should be: \$285.09

Thank You