Installation Instructions

Cheap Staples

Software Dependencies

Cheap Staples requires that you have **Python3** installed prior to running the program. Ensure you have it installed before continuing to installation.

The latest version of python can be downloaded at their website: https://www.python.org/

Installation

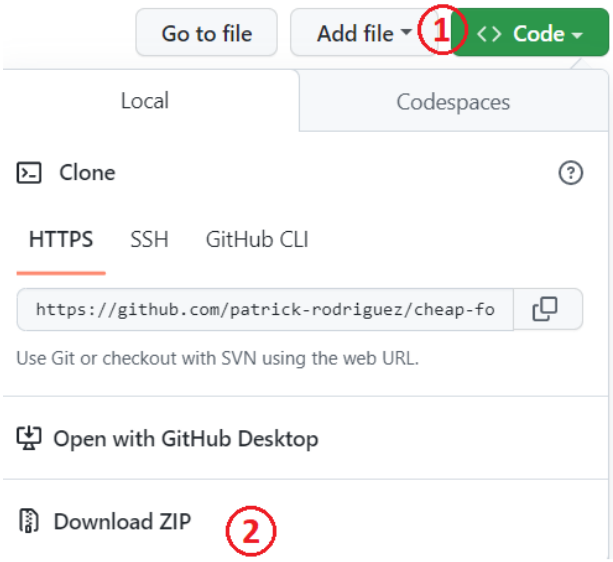
There are two use cases for installing CheapStaples:

1) Installing CheapStaples
2) Creating your own MySQL database to run CheapStaples from

Here in this document, we'll go over both cases.

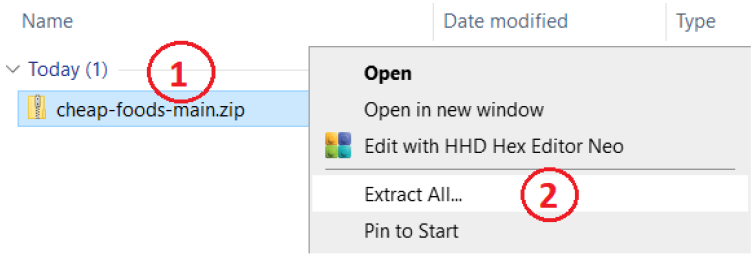
Installing the CheapStaples Program

1) **Download** *CheapStaples* from the Github repo
    a) Press the green "<> Code" button to open a submenu
    b) Press "Download ZIP" to save the repository into your Downloads folder.



2) **Unzip** the folder you just downloaded.
    a) Open you file explorer (or finder on Mac) and navigate to your Downloads folder

b) Right click on the folder "`cheap-foods-main`", and select "Extract All". Save the unzipped folder to your Downloads folder.



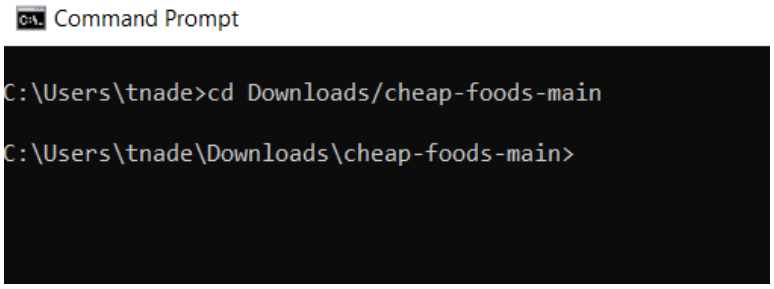
3) **Run** `installer.py`

a) Open up command prompt (or terminal if on Mac)

b) Navigate to the folder you unzipped the folder into.

In this example, we have the folder saved in our Downloads folder, so we need to type:

```
cd Downloads/cheap-foods-main
```

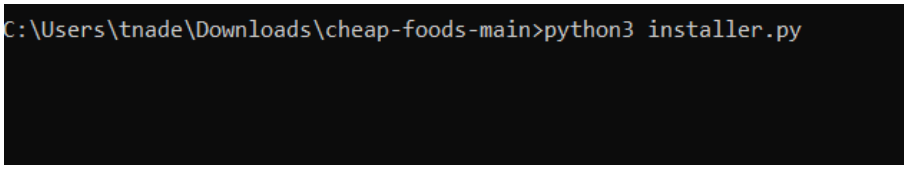


If the folder is not saved in your Downloads, you'll have to know the path to it and use:

```
cd INSERT/YOUR/PATH/HERE/cheap-foods-main
```

c) Run the command

Type `python3 installer.py` to run the installer. This will install all the necessary libraries Cheap Staples needs to use in order to run properly.



If you're using an older version of python, retype the command using `python` *instead of* `python3`.

Creating your own MySQL Database to run CheapStaples from

This use case of installation requires that you already have completed the "Installation of the CheapStaples Program" portion of this document.
Make sure that is finished before proceeding.

1) **Log** into the ix-dev servers
    a) Open up command prompt (or terminal if on Mac)

    b) Type the command `ssh <username>@ix-dev.cs.uoregon.edu` to access ix-dev
        Use your ix-dev username in place of the <username>

    c) Type in your ix-dev password to login

2) **Check** if database files already exist & **Remove** them
    Now that you're logged in, make sure you don't have any existing old mysql database files

    a) Execute the command `ls -a` to list the files in the current directory
    b) If a directory `mysql-data` exists, remove it using command `rm -rf mysql-data` (then `y` to confirm)
    c) If a file `.my.cnf` exists, remove it using command `rm .my.cnf` (then `y` to confirm)
    d) If a file `.my.conf.orig` exists, remove it using command `rm .my.cnf.orig` (then `y` to confirm)

3) **Setup** a new database
    Now you'll need to run a bunch of commands to get the database setup

    a) Execute command `mysqlctl install` - *This initializes a MySQL database*

    b) Choose a password & verify it and remember it/write it down.
        This password should be different from your ix-dev password.

```
tnadeau@ix-dev: ~ 3$ mysqlctl install
This script is designed to setup an individual mysql server
Database password (DO NOT use your unix password):
Verify password:
Installing all prepared tables
```

c) Execute command `mysqlctl start` *- This will create a* `.my.cnf` *file*

```
tnadeau@ix-dev: ~ 4$ mysqlctl start
Port 3602 busy, trying 3847
Started mysqld on port 3847
```

d) Execute command `mysqlctl stop` *- Stops the process to allow editing of the* `.my.cnf` *file*

```
tnadeau@ix-dev: ~ 6$ mysqlctl stop
Stopping mysqld process 3171006
```

e) Execute command `ls -a` and verify that `.my.cnf` file exists
*If it doesn't exist, go back to step **3a***

f) Edit `.my.cnf` file
   i) Open the using the text editor of your choice (Ex: vi/vim)
   ii) On line 18, comment out with `"#"`: `"skip-innodb"` to get `#"skip-innodb"`
   iii) On line 20, comment out with "#": `"default-storage-engine=mysiam"` to get `#"default-storage-engine=mysiam"`
   iv) One line 25, uncomment it to get `"general-log"` from `#"general-log"`
   v) Save and exit the file

g) Execute command `mysqlctl start` again to start up the database

h) Enter the MySQL interface query by executing `mysql -p` and enter the password from step **3b**

i) Execute command in MySQL interface: (replacing <username> & <password> with your own)
`CREATE USER '<username>'@'%' IDENTIFIED BY '<password>';`

Here, you are creating a new username and password for access to the MySQL database. I might suggest using the username the same as your ix-dev and the password to be whatever you want. But you will need to remember both the username and password in a couple steps.

```
mysql> CREATE USER 'tnadeau'@'%' IDENTIFIED BY 'testpassword';
Query OK, 0 rows affected (0.01 sec)
```

j) Execute command in MySQL interface: (replacing <username> with your own)
`GRANT ALL PRIVILEGES ON *.* TO '<username>'@'%' WITH GRANT OPTION;`

*Here, use the same username as in step **3i***

```
mysql> GRANT ALL PRIVILEGES ON *.* TO 'tnadeau'@'%' WITH GRANT OPTION;
Query OK, 0 rows affected (0.00 sec)
```

k) Quit out of the MySQL by executing command `quit`

l) Get the port number by executing `mysqlctl status`

```
tnadeau@ix-dev: ~ 12$ mysqlctl status
mysqld (pid 3374687) listening on ix-dev:3042
```

Here, my port number is 3042. I'm going to need to remember that

4) **Change the variables** in `database_functions.py`

a) Using your file explorer (or Finder on Mac), navigate to where you have `database_functions.py` in the `cheap-foods` directory

b) Open `database_functions.py` in whatever text editor your wish to use (.txt, VSCode, vim, etc)

c) Change certain variables in the code
   i) On line 15 (`port=`), assign it to the port number you got on Step **3l**
   ii) On line 16 (`user=`), assign it to the username you inputted in Step **3i**
   iii) On line 17 (`password=`), assign it to the password you inputted in Step **3i**
   iv) Save the file

```
con = mysql.connector.connect(
    host='ix-dev.cs.uoregon.edu',
    port=3042,
    user='tnadeau',
    password='testpassword',
    database='Cheap_Staples'
)
```

On the left, is the default database connection

```
con = mysql.connector.connect(
    host='ix-dev.cs.uoregon.edu',
    port= <port number>,
    user='<username>',
    password='<password>',
    database='Cheap_Staples'
)
```

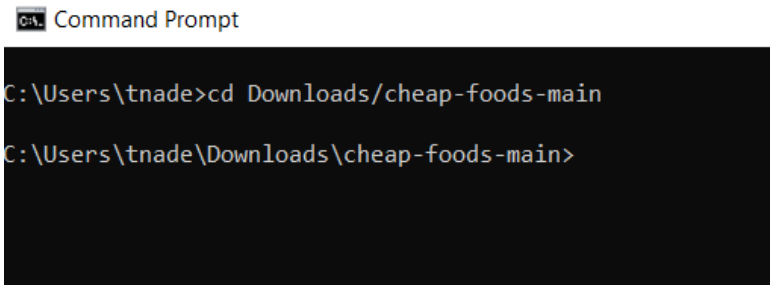
On the right shows what text you'll need to change

5) **Run** `setup_MySQL.py`

a) Open up another command prompt window (or terminal if on Mac)
b) Navigate to the folder you unzipped the folder into.

In this example, we have the folder saved in our Downloads folder, so we need to type:

```
cd Downloads/cheap-foods-main
```



If the folder is not saved in your Downloads, you'll have to know the path to it and use:

```
cd INSERT/YOUR/PATH/HERE/cheap-foods-main
```

c) Run setup script

Type `python3 setup_MySQL.py` to set up the database. This may take a couple minutes because this will initiate all the tables, and call the scrapers to come in and populate the data for you so when you use CheapStaples for the first time on your new database, the data is already there.

```
C:\Users\tnade\OneDrive\Desktop\CS 422\cheap-foods>python setup_MySQL.py
Enter MySQL Host (Either ix-dev.cs.uoregon.edu or ix.cs.uoregon.edu): ix-dev.cs.uoregon.edu
Enter MySQL Username: tnadeau
Enter MySQL Password: testpassword
Enter MySQL Port: 3042
Populating tables. Please wait.
Populating tables finished!
Have fun using Cheap Staples!
```

If you're using an older version of python, retype the command using `python` instead of `python3`.

Congratulations!
Now the database is set up and you can proceed to use CheapStaples as you wish!