

Blockchain Assignment 3 Instructions

Sy Butler and Daniel Kelly

Our project is a blockchain parser. We wrote our source code in Python, and you will need Python 3.6 or higher. The dependencies should be in the virtual environment that is included with our submitted project code, but in case they are not they are listed at the bottom of this document.

Instructions:

1. Download or clone our project from <https://github.com/sybutler/blockchain>
2. Use the command line to navigate to our project directory, so that .py files are visible when you type cd
3. Type cd venv/Scripts and hit enter
4. Type activate or ./activate to activate our virtual environment
5. Navigate back to the project directory
6. To run our program type

```
python block_parser.py <block hash>
```

and hit enter.

Example:

```
python block_parser.py 000000000000000038d7cdcbd44b407f757f30f76f6dbe3d96bd050db3c230df
```

Dependencies:

Project Interpreter: Python 3.6 (blockchain) C:\Users\Daniel\PycharmProjects\blockchain\venv\Scripts\python.exe		
Package	Version	Latest version
base58	1.0.3	1.0.3
beautifulsoup4	4.8.1	4.8.1
lxml	4.4.2	4.4.2
pip	19.0.3	▲ 19.3.1
python-dateutil	2.8.1	2.8.1
pytz	2019.3	2019.3

The libraries listed above are required. They are all latest versions, which can be installed using the command:

```
pip install <package name>
```

Package names: beautifulsoup4, base58, lxml, python-dateutil, pytz

Notes:

For some blocks, our program takes a long time to parse.

Additionally, some blocks contain transactions in an unsupported format. The parser will exit when these are reached. Thus, the block fee and volume are not calculated. However, all information contained in the block header and in all the transactions before the unsupported transaction will be printed.