

README

To run this project, you can use the following to start.

For example

```
python3 program2.py 3 t1.txt
```

```
python3 + program2.py + <number of items in database> + <file1> + <file2> + ... + <transaction  
file n>
```

```
(venv) eve@Eves-Air Programming2_python % ls
Database.py      README.pdf      program2.py      t1.txt          t3.txt          venv
README.md       database.h      program2_wait_die.py  t2.txt          t4.txt
(venv) eve@Eves-Air Programming2_python % python3 program2.py 3 t1.txt
T0 request S-lock on item 1: G
T0 excute  Read data[1] and copy it to local[1] <1>
T0 request S-lock on item 2: G
T0 excute  Read data[2] and copy it to local[2] <2>
T0 excute  local[2] = local[2] + local[1] <3>
T0 request X -lock on item 2: G
T0 excute  Write value of the local[2] to data[2] <4>
[1, 2, 5]
```

```
(venv) eve@Eves-Air Programming2_python % python3 program2.py 3 t1.txt t2.txt
T1 request S-lock on item 0: G
T1 excute  Read data[0] and copy it to local[0] <1>
T0 request S-lock on item 1: G
T0 excute  Read data[1] and copy it to local[1] <1>
T1 excute  local[0] = local[0] * 2 <2>
T1 request S-lock on item 1: G
T1 excute  Read data[1] and copy it to local[1] <3>
T0 request S-lock on item 2: G
T0 excute  Read data[2] and copy it to local[2] <2>
T0 excute  local[2] = local[2] + local[1] <3>
T1 excute  local[1] = local[1] + 4 <4>
T0 request X -lock on item 2: G
T0 excute  Write value of the local[2] to data[2] <4>
T1 request X -lock on item 1: G
T1 excute  Write value of the local[1] to data[1] <5>
T1 request X -lock on item 0: G
T1 excute  Write value of the local[0] to data[0] <6>
[2, 6, 5]
(venv) eve@Eves-Air Programming2_python %
```

The `program2_wait_die.py` same as before.

```
(venv) eve@Eves-Air Programming2_python % python3 program2_wait_die.py 3 t1.txt t2.txt
T0 request S-lock on item 1: G
T0 excute Read data[1] and copy it to local[1] <1>
T1 request S-lock on item 0: G
T1 excute Read data[0] and copy it to local[0] <1>
T1 excute local[0] = local[0] * 2 <2>
T1 request S-lock on item 1: G
T1 excute Read data[1] and copy it to local[1] <3>
T0 request S-lock on item 2: G
T0 excute Read data[2] and copy it to local[2] <2>
T1 excute local[1] = local[1] + 4 <4>
T0 excute local[2] = local[2] + local[1] <3>
T1 request X-lock on item 1: D
T1 rolled back
<6>
T0 request X -lock on item 2: G
T0 excute Write value of the local[2] to data[2] <4>
[1, 2, 5]
(venv) eve@Eves-Air Programming2_python %
```