Question 1

```
Preparing to unpack .../archives/nano_3.2-3_amd64.deb ...
Unpacking nano (3.2-3) ...
Setting up nano (3.2-3) ...
update-alternatives: using /bin/nano to provide /usr/bin/editor (editor) in auto mo
de
update-alternatives: using /bin/nano to provide /usr/bin/pico (pico) in auto mode
root@beaa0ba84f82:/src/blockstack-core/sample-programs# nano sum.clar
root@beaa0ba84f82:/src/blockstack-core/sample-programs# clarity-cli generate_addres
s
SP69VBAZ15CEN0QYEJENVNV2Q48FWB9B9AXVF2AW
root@beaa0ba84f82:/src/blockstack-core/sample-programs# nano ~/.profile
root@beaa0ba84f82:/src/blockstack-core/sample-programs# clarity-cli initialize /dat
a/db
Database created.
root@beaa0ba84f82:/src/blockstack-core/sample-programs# source ~/.profile
root@beaa0ba84f82:/src/blockstack-core/sample-programs# ls
names.clar  sum.clar  tokens.clar
root@beaa0ba84f82:/src/blockstack-core/sample-programs# clarity-cli launch $DEMO_AD
DRESS.sum sum.clar /data/db
Contract initialized!
root@beaa0ba84f82:/src/blockstack-core/sample-programs# clarity-cli execute /data/d
b $DEMO_ADDRESS.sum sum $DEMO_ADDRESS u10 u15
Transaction executed and committed. Returned: u25
root@beaa0ba84f82:/src/blockstack-core/sample-programs#
```

Question 2

In the token.clar

Define-map tokens creates a map with map name “tokens” which will provide a key-value storage map from the account principal to the balance.

Define-private get-balance creates private function to get balance of an account. In this function, the input type is account principal and the return type is uint. The default return value is u0. If map-get tokens is ok, it will return balance from “tokens” map based on the account.

Define-private token-credit creates a private function to credit tokens into a specific account. It checks if the amount is more than 0. If it is less than 0, it throws an error message, “must move positive balance”. If it is more than 0, then the amount will be added to storage map via map name “tokens”.

Define-public token-transfer creates a public function to transfer token. It only accepts 2 agruments, “receiver” account and the amount. The keyword tx-sender is reserved as the account of the sender. First, the function will get the balance from the sender and check if the transaction amount is more than the balance or less than 0. If it does, it will throw an error. If it does not, it will proceed to do the transaction by editing the storage map using the map “tokens” api.

Define-public mint function wraps the private function token-credit.