Geth JavaScript Console

The JavaScript console is an interactive JavaScript environment, connected to the Ethereum node. Which is kind of like the control panel for the Ethereum node.

Admin Module

admin.addPeer	To add new peer to the network by giving **enode** address as the input
admin.nodeInfo	Get the node information (includes enode address)
admin.addTrustedPeer	Add a trusted peer to the network.
admin.getPeers	Get Peer List.
admin.removePeer	Remove a peer.
admin.removeTrustedPeer	Remove a trusted peer.
admin.datadir	Show data directory path of the connected node.
admin.exportChain	Export the chain to a file.
admin.importChain	Import the chain from a file.

Eth Module

eth.accounts	List all accounts.
eth.blockNumber	Get the latest block number.
eth.getBalance	To get balance.
eth.chainId	Get the Chain Id of the network.
eth.coinbase	Get the coinbase address.
eth.getBlock	Get the block data by specifying the block number.
eth.getTransaction, eth.getTransactionReceipt	Get the transaction data by specifying the transaction number.
eth.getTransactionFromBlock	Get transactions from a block data by specifying the block number.
eth.syncing	Check if the synching is finished or not. Shows false on finish, and if not finish shows the details.
eth.sendTransaction	Send ether (input in json format: {from:sender,to:reciver,value:amount}

Miner Module

miner.start	Start the miner in the connected node.
miner.stop	Stop the miner in the connected node.
miner.setEtherbase	To set coinbase

Net Module

net.peerCount	Get the peer count

Personal Module	
personal.listAccounts	Get the list of all accounts.
personal.newAccount	Create a new account by giving password as input.
personal.lockAccount	Lock an account by giving address as input.
personal.unlockAccount	Unlock an account by giving password as input.

To bring up the JavaScript Console we have three ways:

1. By giving console at the end of the command used to run the node, like shown below:

```
> geth --identity "miner" --networkid 42 --datadir data --nodiscover --mine --rpc
--rpcport "8545" --port "8191" --unlock 0 --password password.txt --ipcpath
"~/.ethereum/geth.ipc" --rpccorsdomain "*" --rpcapi "db,eth,net,web3,personal"
console
```

2. After running the node take another terminal and run the below command:

```
> geth attach
```

This uses the IPC protocols of Geth to connect to the node

3. After running the node take another terminal and run the below command:

```
> geth attach 'http://127.0.0.1:8545'
```

This uses the HTTP-RPC protocols of Geth to connect to the node.