data	observation

Geth --http --dev
Call eth_getCode with the coinbase address with no contract
With the block address of 0x0
 	
``json
{
  "jsonrpc": "2.0",
  "id": 1,
  "result": "0x"
}
``
	Must return 0x if contract does not exist
	On block 0x0
	Must return 0x0 if code did not exist on given block

Geth --http --dev
Call eth_getCode with the coinbase address with no contract
With the block address of latest
 	
``json
{
  "jsonrpc": "2.0",
  "id": 1,
  "result": "0x"
}
``
	Must return 0x it contract does not exist
	On the latest block

Geth --http --dev
Call eth_getCode with the coinbase address with no contract
With the block address of pending
 	
``json
{
  "jsonrpc": "2.0",
  "id": 1,
  "result": "0x"
}
``
	Must return 0x it contract does not exist
	On the pending

Geth --http --dev
Call eth_getCode with the coinbase address with no contract
With the block address of 0x1 (does not exist currently)
 	
``json
{
  "jsonrpc": "2.0",
  "id": 1,
  "error": {
    "code": -32000,
    "message": "header not found"
  }
}
``
	Invalid Input |eth_getBalance MUST return error code -32000|

geth --http --dev -verbosity 6 --ipcdisable --port 30301 --http.port 8101
 	
``json
{
  "jsonrpc":"2.0",
  "method":"eth_sendTransaction",
  "params": [
``
	Must return the byte code representation of the contracts function? Stored in memory. Or byte code stored in memory
	On the latest block

```
    {
        "from": "0x062ed38b4fda814964763f85d50a0f004
e8a4d57",
        "data": "{{Contract COINBASE}}"
        0x684160005260206000f360005260096017
        f3

    }
    ],
    "id": 1
}

{
    "jsonrpc": "2.0",
    "id": 1,
    "result": "0x013c5d9fefb64e543d30f2b127ad860285aa
ed2c6434117119a47236169ed5a2"
}
{
    "jsonrpc":"2.0",
    "method":"eth_getCode",
    "params":[
        "0xfd30dc9f54e25d8eaa066dbb9f214f930f2f10ff",
        "latest"
    ],
    "id":1
}
{
    "jsonrpc": "2.0",
    "id": 1,
    "result": "0x4160005260206000f3"
}
```

Must return byte code stored in given contracts memory.
On block latest

```
{
    "jsonrpc":"2.0",
    "method":"eth_sendTransaction",
    "params": [
        {
            "from": "0x062ed38b4fda814964763f85d50a0f004
e8a4d57",
            "data": "{{Contract CALLER}}"
        }
    ],
    "id": 1
}
{
    "jsonrpc":"2.0",
    "method":"eth_getCode",
    "params":[
        "0x27860428b0f48669b5777a5d6af5cbc8ec9da248",
        "latest"
    ],
    "id":1
}
{
    "jsonrpc": "2.0",
    "id": 1,
    "result": "0x3360005260206000f3"
}
```

`}`	
| ```json
{
   "jsonrpc":"2.0",
   "method":"eth_sendTransaction",
   "params": [
      {
        "from": "0x062ed38b4fda814964763f85d50a0f004e8a4d57",
        "data": "{{Contract CALLVALUE}}"
      }
   ],
   "id": 1
}
{
   "jsonrpc":"2.0",
   "method":"eth_getCode",
   "params":[
      "0xcb0b1361d2c02b67045be2ad6f5a6b474f6fd5f4",
      "latest"
   ],
   "id":1
}

{
   "jsonrpc": "2.0",
   "id": 1,
   "result": "0x3460005260206000f3"
}
``` | Must return byte code endoced code from  given  address On block latest |
| ```json
{
   "jsonrpc":"2.0",
   "method":"eth_sendTransaction",
   "params": [
      {
        "from": "0x062ed38b4fda814964763f85d50a0f004e8a4d57",
        "data": "0x60566023600b82828239805160001a607314601657fe5b30600052607381538281f3fe7300000000000000000000000000000000000000000000030146080604052600080fdfea2646970667358221220d0f89f5776a221d9ff1e24327bf4be2ff5239861e65e6677bff3616d9fe8e10964736f6c634300060c0033"
      }
   ],
   "id": 1
}

{
   "jsonrpc":"2.0",
   "method":"eth_getCode",
   "params":[
      "0x561690dbca864c7b64f69d91b9846982edf6c951",

      "latest"
   ],
   "id":1
}
``` | Must return code from given address as type data Must not be the same code in transaction data. On any block |

```
{
   "jsonrpc": "2.0",
   "id": 1,
   "result": "0x73561690dbca864c7b64f69d91b9846982e
df6c951301460806040526000080fdfea2646970667358226
1220d0f89f5776a221d9ff1e24327bf4be2ff5239861e65e6
677bff3616d9fe8e10964736f6c634300060c0033"
}
```

Must return if 0x if contract is created but has no code

```
{
   "jsonrpc":"2.0",
   "method":"eth_sendTransaction",
   "params": [
       {
         "from": "0x062ed38b4fda814964763f85d50a0f004
e8a4d57",
         "data": "0x"
       }
   ],
   "id": 1
}
{
   "jsonrpc": "2.0",
   "id": 1,
   "error": {
     "code": -32000,
     "message": "contract creation without any data provid
ed"
   }
}
```

```
{
   "jsonrpc":"2.0",
   "method":"eth_sendTransaction",
   "params": [
       {
         "from": "0x062ed38b4fda814964763f85d50a0f004
e8a4d57",
         "data": "0x00"
       }
   ],
   "id": 1

}
{
   "jsonrpc": "2.0",
   "id": 1,
   "result": "0x"
}
```

```
{
   "jsonrpc":"2.0",
   "method":"eth_sendTransaction",
   "params": [
       {
         "from": "0x062ed38b4fda814964763f85d50a0f004
e8a4d57",
```

``json
      "data": "0x60006000f3"
    }
  ],
  "id": 1
}
{
  "jsonrpc": "2.0",
  "id": 1,
  "result": "0x"
}
``	

``json
{
  "jsonrpc":"2.0",
  "method":"eth_sendTransaction",
  "params": [
    {
      "from": "0x062ed38b4fda814964763f85d50a0f004e8a4d57",
      "data": "0x60806000f3"
    }
  ],
  "id": 1
}
``
 	
Get code()
``json
{
  "jsonrpc": "2.0",
  "id": 1,
  "result": "0x00"
}
``
	Must return code stored in contract in given address
	Return 0x0

``json
{
  "jsonrpc":"2.0",
  "method":"eth_sendTransaction",
  "params": [
    {
      "from": "0x062ed38b4fda814964763f85d50a0f004e8a4d57",
      "data": "0x60"
    }
  ],
  "id": 1
}
``
Get code()
``json
{
  "jsonrpc": "2.0",
  "id": 1,
  "result": "0x"
}
``
	Must return 0x if no code was given
	Ie just creation code

``json
{
  "jsonrpc":"2.0",
``
	No return value

```
    "method":"eth_sendTransaction",
    "params": [
        {
            "from": "0x062ed38b4fda814964763f85d50a0f004
e8a4d57",
            "data": "0x60806040"
        }
    ],
    "id": 1
}
```

No return but no error

Will return
Get code()

```
{
    "jsonrpc": "2.0",
    "id": 1,
    "result": "0x"
}
```

```
{
    "jsonrpc":"2.0",
    "method":"eth_sendTransaction",
    "params": [
        {
            "from": "0x062ed38b4fda814964763f85d50a0f004
e8a4d57",
            "data": "0x60ff6000f3"
        }
    ],
    "id": 1
}
```

With a return, runable code.

```
{
    "jsonrpc": "2.0",
    "id": 1,
    "result": "0x00000000000000000000000000000000
000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000000
00000000000000000000000000"
}
```