**KYC Smart Contract – Documentation**

**Following steps describes how to test the contract from Remix IDE.**

**Below is the user interface for all the functions available.**

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**The below functions can be used only by Admin**

addBank

**It takes the address of the bank account, description and registration number. Admin can use this to register bank account that participates in KYC**

removeBank

**Admin can remove a bank that acts maliciously against the interest of the network. This function takes in the address of the bank registered.**

isAllowVoting

**Admin can alter the voting capabilities of a bank. When a bank Is added it has voting capabilities. Admin can alter this.**

getBank

**Admin can use this to get the bank account information of the accounts it registered.**

getBankComplaints

**Admin can use this to check the number of complaints against a bank. It takes in the address of the bank.**

**Below are the functions for the registered bank**

KYCRequest

**A registered bank can initiate a KYC request from a customer. If the request is already present then the smart contract notifies the bank. The bank can upvote or downvote the details of the customer if found. Otherwise the KYC request will be sent to network. The bank sending the request has to do the KYC and use the verifyKYC to verify the kyc**

verifyKYC

**Verifies the KYC. The KYC is verified and customer data is entered into the blockchain as verified. Other banks can use this data to check for KYC documents assuming customer has already approved for this.**

getCustomer

**Registered banks can use getCustomer to get the customer data and verify the KYC status.**

upVoteCustomer

**Registered banks can upvote the KYC requests. It cannot upvote its own customer. The upvote request adds upvotes for the customers. If the upvotes are more than downvotes and has crossed a threshold it will set the kyc status as verified.**

downVoteCustomer

**Registered banks can down vote the KYC requests. It cannot down vote its own customer. The down vote request adds down votes for the customers. If the down votes are more than upvotes and has crossed a threshold it will set the kyc status as un verified. If more than 50 percent of participating banks down voted then even if up vote is more, the KYC status will be un verified.**

setCustomer

**For a un verified customer KYC (because it may be downvoted) a new bank can add new documents for this customer and verify it. It removes the existing KYC documents and replaces with new one. It also resets the upvotes and down votes.**

reportBank

**A registered bank can report other banks for malicious or incorrect activity. If more than 30 percent of the participating banks complains against a bank then the banks voting rights will be taken away.**

**Function Flow – high level**

**Diagram

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