Testcases:

1. Testcase to verify that any token can be added or removed from Allowlist. Only the tokens that are allowed can be used to create Offer. Only contract owner should be able to add/remove tokens from the allowlist.
2. To verify that an offer can be created (createOffer) to exchange two tokens (that are already allowed). When an offer is created following happens:
3. Offer is created with 5 input parameters.

* token to be sold by Offer creator. (sendToken)
* amount of token to be sold. (sendAmount)
* token to be received in exchange. (receiveToken)
* amount to be received in exchange. (receiveAmount)
* minimum amount that can be accepted in exchange (partial sale). (minimumReceiveAmount)

(minimumReceiveAmount needs to be less than or equal to receiveAmount)

1. Offer is created with an OfferId and is in active state. Number of tokens to be sold are transferred from offer creator’s address to smart contract. A fee of 0.25% charged in same token is transferred to a wallet (configurable).
2. To verify that the offer can be edited (editOffer) only by the offer creator. The values that can be edited are receiveAmount and minimumReceiveAmount.

(minimumReceiveAmount needs to be less than or equal to receiveAmount). Obviously the editOffer is available only for active offers.

1. To verify that the offer can be cancelled (cancelOffer), only by the offer creator. When cancelled the number of sendTokens in the contract for this offer are transferred back to the user. Obviously the cancelOffer is available only for active offers. Once cancelled, the offer state becomes inactive.
2. To verify that one can buy the offer (in full). receiveAmount of receiveToken is transferred from user’s wallet to offerCreator’s wallet. A fee of 0.25% is transferred to fee wallet. And sendAmount of sendToken is transferred to user/buyer’s wallet. The offer becomes inactive.
3. To verify that one can buy the offer (partial). An amount more than minimumReceiveAmount is transferred to offerCreator’s wallet. In exact proportion, sendToken is transferred from smart contract to buyer’s wallet. A fee of 0.25% of the amount of receiveToken sent by buyer would be sent to fee wallet. The offer remains active. The receiveAmount and sendAmount are updated**. Imp: If after updating, minimumReceiveAmount is greater than receiveAmount, minimumReceiveAmount is updated to be same as receiveAmount.**
4. To verify that the contract is transferrable and follows all standard checks for token availability and allowances.
5. To verify that events are generated with correct values for each transaction.