

## Homework 13

Write a 'shame coin' contract

This will be based on the ERC20 contract you have already written.

1. The shame coin needs to have an administrator address that is set in the constructor.
2. The decimal places should be set to 0.
3. The administrator can send 1 shame coin at a time to other addresses (but keep the transfer function signature the same)
4. If non administrators try to transfer their shame coin, the transfer function will instead increase their balance by one.
5. Non administrators can approve the administrator (and only the administrator) to spend one token on their behalf
6. The transfer from function should just reduce the balance of the holder.
7. Write unit tests to show that the functionality is correct.