Dutch Auction Code Analysis

By Akshat Khandelwal (20173048), Chandrasekhar P (20173039)

1. Line no. 43 - `while (now - biddingStart < biddingDuration && state == State.active) {}`

    This logic will not work, as 'now' refers to the current block's timestamp. It does not update if being accessed in a loop. It will get stuck in an Infinite loop.
2. Same above issue in line no. 48 `while (now - biddingStart < biddingDuration && state == State.active) {}`
    It will get stuck in Infinite loop.
3. Line number 44 - `while (state == State.active && offerPrice >= minPrice + priceDecrement) {`
    This can potentially go in an Infinite loop, if the priceDecrement is very less compared to offerPrice. It will consume a lot of gas, and get rejected with "Out of Gas" error.

4. In all event calls, we should mention 'emit' keyword. Example -

```
NewOfferPrice(offerPrice);
```

//Should change to
```
emit NewOfferPrice(offerPrice);
```

   5. `The logic of Dutch Auction is incorrect as per its definition.`