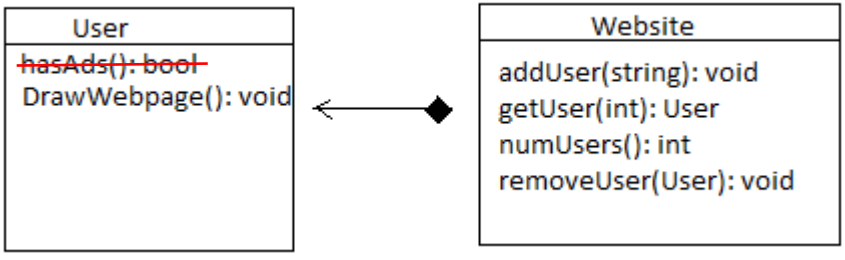
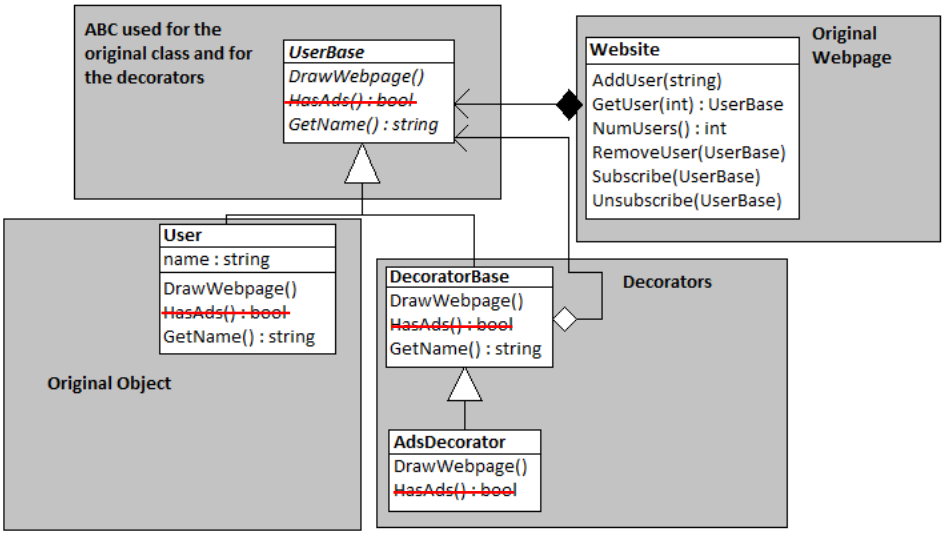
Question 3

We considered the problem of a webpage owner who wants to create a subscription service where the subscribed users have the advertisements removed from the site, but have the unsubscribed users still see the ads. In order to do this, we will implement the decorator pattern so that an ads decorator adds the advertisements and the lack of an ads decorator indicates no ads will appear.

Original UML



Decorator UML



Don't need HasAds() operations -- the presence or absence of the AdsDecorator determines whether a User sees ads or not