1. Notable Obstacles Overcome

Initially, I had trouble figuring out how to end the program once it detected a unique error in the inputs for Units sent, title, base price, and premium item. I think there could be a better, more efficient, way of doing so, but I figured out that if you just make the rest of the program the else statement then the error will display if the Boolean expression is true, and if it is false, it will continue down the program to input the next parts.

I also initially fell for careless mistakes such as creating an integer within the if statement and forgetting to ignore the endl from the cin before using getline(cin, title). (All in all, I thought it was extraordinarily helpful to do one part at a time, and write out the logic flow of the program before starting to code.)

The other thing I had trouble with doing efficiently would have to be my calculations for overall royalties earned. I feel as though I could have added more variables or done it more efficiently so that I would not have to copy and paste the same calculations from the section above when dealing with the royalties earned above 400 units sent. I made quite a few errors and got the equations confused, and my main error I found near the end was the calculations for when unitsSent >= 1200. When I was going through and comparing my test data on the online calculator compared to my program, I realized that I had written the completely wrong equation for whenever the units sent were greater than or equal to 1200. It took me a while to realize that once the units sent were at 1200, there were 400 units taking the 400 rate and *800 units taking the 800 rate*.

1. Test Data

Error with nonnegative Units sent (-2)

Error with blank string given for Title (34, ENTER)

Error with nonnegative Base price (56, The Wizard of Oz, -5)

Error in string put for Premium item? (92, The Godfather, 13.99, m)

Correct rounding with valid input (250, The Little Mermaid, 12, n)

Correct royalty value when units sent < 400 (399, Mary Poppins, 9.95, y)

Premium status not affecting royalties when units sent < 400 (399, Mary Poppins, 9.95, n)

Correct royalty value when 400 units sent (400, The Toy Story, 10.99, y)

Premium status not affecting royalties when units sent = 400 (400, The Toy Story, 10.99, y)

Correct royalty value when units sent is between 400 & 1200 (675, Cinderella, 12.50, n)

Correct change in royalty value based on premium status (675, Cinderella, 12.50, y)

Correct royalty value when 1200 premium units sent (1200, Mulan, 16.99, y)

Correct royalty value when 1200 non-premium units sent (1200, Mulan, 16.99, n)

Correct royalty value when premium units sent > 1200 (1550, Titanic, 11.95, y)

Correct royalty value when non-premium units sent > 1200 (1550, Titanic, 11.95, n)