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CECS 220

Assignment 03

6/9/17

Problem 1

Description: Modify Account to output an error if the user withdrawals more than what in their account and when the deposit a negative amount.

Logic: I added an if statement on the withdrawal so that if the amount plus fees is greater than the funds, it outputs and error. I also added an if statement on the deposit so that if the amount is below error, it outputs and error.

```
John Doe has a balance of $500.0
John Doe now has a balance of $8.0

Error: Withdrawl amount with fees cannot exceed funds
John Doe now has a balance of $8.0

Error: Deposit amount cannot be negative.
John Doe now has a balance of $8.0

John Doe now has a balance of $308.0
```
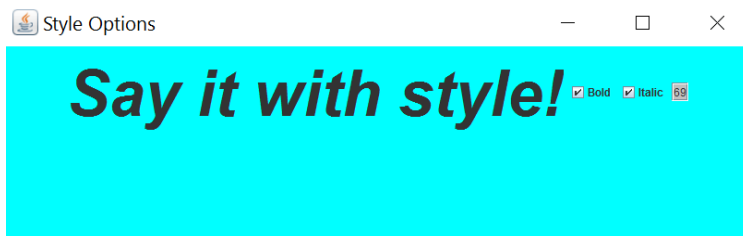
Problem 2

Description: Modify the StyleOption to add a text field in which you can input the font size.

Logic: I had to use KeyListener to write a statement that obtained the number typed in and when enter is pressed, changes the font size.

Problem 3:

Description: Write a program that counts the number of vowels and nonvowels.
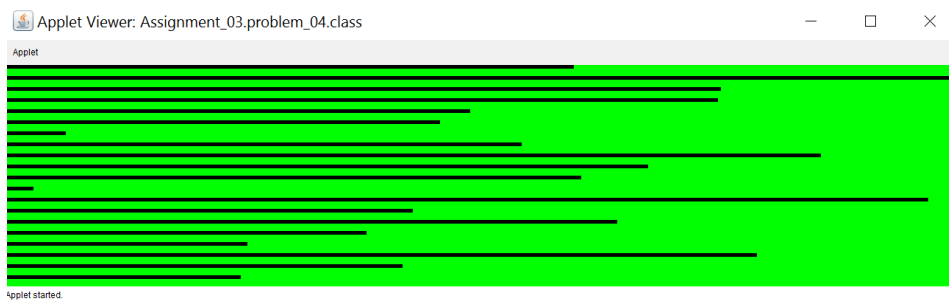
Logic: I used if else statements to examine each character to see if it a vowel or not.

```
<terminated> problem_03 (2) [Java Application] C:\Users\Trevor\D
Enter string:
hey little mama lemme whisper in your ear
Number of a's : 3
Number of e's : 6
Number of i's : 0
Number of o's : 1
Number of u's : 1
Number of non vowels : 30
```

Problem 4:

Description: Write a program that prints 20 lines of random length.

Logic: I used a for loop to create lines and used the math function to pick a random number in the constraints of the window to set to the length.

Problem 5:

Description: Create a Course class that works with the Address class and the Student class to make a roll for courses and prints the average test scores.

Logic: I had to add the required elements for the average test score and the course.

```
<terminated> CourseTest [Java Application] C:\Users\Trevor\Deskt
Roll for CECS 220:
John Doe
Home Address:
1323 3rd Street
Louisville, KY  40332
School Address:
3453 Shelbyville Rd
Louisville, KY  40222

Jim Lindell
Home Address:
2108 S 4th Street
Louisville, KY  40352
School Address:
3453 Main St
Chicago, IL  45672

Bob Stone
Home Address:
455 Whipsmill
Louisville, KY  40222
School Address:
678 Bardstown Rd
Louisville, KY  40322

Average Test Scores: 82.96666666666667%
```
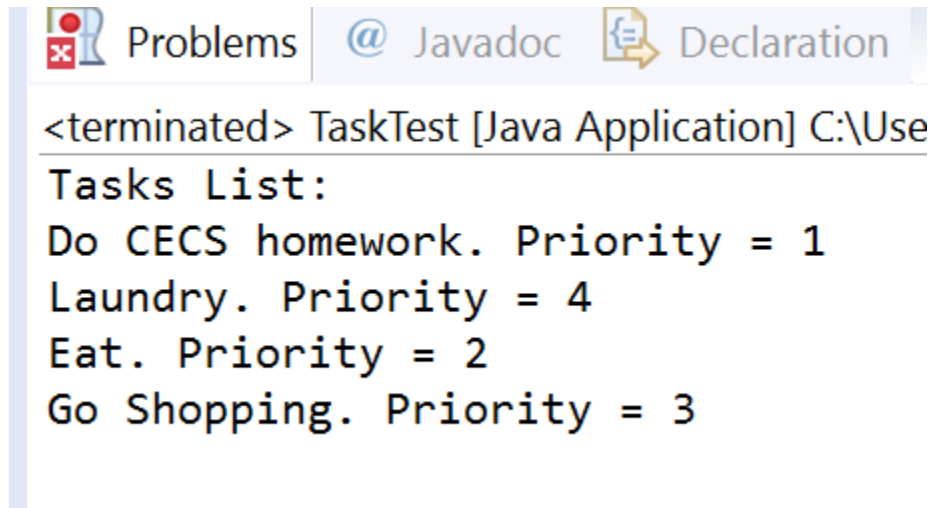
Problem 6:

Description: Write a program that makes a list with priority numbers.

Logic: I created the tasks in an array then used a for loop to print them out, outputting the names and corresponding priority number.

```
Problems    @ Javadoc    Declaration
<terminated> TaskTest [Java Application] C:\Use
Tasks List:
Do CECS homework. Priority = 1
Laundry. Priority = 4
Eat. Priority = 2
Go Shopping. Priority = 3
```

Conclusion

This assignment helped me learn more about classes working with each other, arrays, and inheritance.