

CSE1322L Assignment

6. `seeltems()`, which takes in nothing and returns a string. If `items` is empty, this method returns an empty string. Otherwise, it will return a list of all the items in `items` in the following format:

POSITION. ITEM ID 0>BC 0.0000092 0 12 2 eVW 11.04 Tf 0 0 1 10.02 00

- It must have the following methods:
 1. `getAmount()`, which takes in nothing and returns a double. If `subitems` is empty, it returns `amount`. Otherwise, this method adds up the amount of all of the `BillingSubItems` in `subitems`, returning that summation.

- It has an overloaded of the toString() method, which returns both fields in the BillingSubItem in the following format:

DESCRIPTION: \$AMOUNT

SubItem 1: \$10.00

Driver class

- Creates a Bill object
- In a loop, prompts the user for the following options:
 1. **Add item:** Prompts the user for the BillingItem's description and amount, adding it to the Bill
 2. **Remove item:** Shows a list of all available BillingItems and prompts the user for which item they want to delete. If the user picks a valid one, remove it from Bill. Otherwise, print an error message.
 3. **Add subitem:** Shows a list of all available BillingItems and prompts the user for a BillingItem. If the user picks a valid one, prompt them for the BillingSubItem's description and amount, adding this new BillingSubItem to the selected BillingItem. Otherwise, print error messages as appropriate.
 4. **Remove subitem:** Shows a list of all available BillingItems and prompts the user for a BillingItem. If the user picks a valid one, show a list of all available BillingSubItems in that BillingItem and prompt them for a BillingSubItem. If the user picks a valid one, remove it from the BillingItem. Otherwise, print error messages as appropriate.
 5. **See tax:** prints the current tax percentage
 6. **Set tax:** prompts the user for a new tax percentage, updating it on Bill.
 7. **Preview bill:** Prints out the Bill's toString().
 8. **Finish:** prints out the Bill's toString(). It will then ask the user if they would like to create another Bill. If they say yes, re-initialize the Bill object and start the loop again. Otherwise, terminate the program.

Considerations

This assignment may seem intimidating, but that's just because of the number of things you have to do; the assignment itself isn't very hard, so don't be discouraÄ

Example: [User input in red]

[Bill Generator]

New bill created.

1. Add item
2. Remove item
3. Add subitem
4. Remove subitem
5. See tax
6. Set tax
7. Preview bill
8. Finish

Select option: **2**

There are no items to remove!

1. Add item
2. Remove item
3. Add subitem
4. Remove subitem
5. See tax
6. Set tax
7. Preview bill
8. Finish

Select option: **4**

There are no items from which you can remove subitems!

1. Add item
2. Remove item
3. Add subitem
4. Remove subitem
5. See tax
6. Set tax
7. Preview bill
8. Finish

Select option: **1**

Enter the item's description: **Lab work (Blood)**

Enter the item's amount: **370.45**

Item added to bill.

1. Add item
2. Remove item
3. Add subitem
4. Remove subitem

- 5. See tax
- 6. Set tax
- 7. Preview bill
- 8. Finish

Select option: **1**

Enter the item's description: **GP Office Visit**

Enter the item's amount: **212.30**

Item added to bill.

- 1. Add item
- 2. Remove item
- 3. Add subitem
- 4. Remove subitem
- 5. See tax
- 6. Set tax
- 7. Preview bill
- 8. Finish

Select option: **1**

Enter the item's description: **Insurance coverage**

Enter the item's amount: **-250**

Item added to bill.

- 1. Add item
- 2. Remove item
- 3. Add subitem
- 4. Remove subitem
- 5. See tax
- 6. Set tax
- 7. Preview bill
- 8. Finish

Select option: **8**

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Lab work (Blood): \$370.45

GP Office Visit: \$212.30

Insurance coverage: \$-250.00

Subtotal: \$332.75

Total + Tax: \$332.75

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Would you like to create a new bill? (say "no" to terminate) **yes**
New bill created.

1. Add item

1. AyePhone: \$650.00
2. ElVello laptop: \$1200.00

Select an item: **0**

Enter subitem's description: **Standard damage warranty**

Enter subitem's amount: **25**

Subitem added to item.

1. Add item
2. Remove item
3. Add subitem
4. Remove subitem
5. See tax
6. Set tax
7. Preview bill
8. Finish

Select option: **3**

0. Knockya

1. Add item
2. Remove item
3. Add subitem
4. Remove subitem
5. See tax
6. Set tax
7. Preview bill
8. Finish

Select option: **3**

0. Knockya cellphone: \$100.00

1. AyePhone: \$110.00

2. ElVello laptop: \$1200.00

Select an item: **1**

Enter subitem's description: **Total damage warranty**

Enter subitem's amount: **200**

Subitem added to item.

1. Add item
2. Remove item
3. Add subitem
4. Remove subitem
5. See tax
6. Set tax
7. Preview bill
8. Finish

Select option: **3**

0. Knockya cellphone: \$100.00

1. AyePhone: \$310.00

2. ElVello laptop: \$1200.00

Select an item: **2**

Enter subitem's description: **Monthly instalments**

Enter subitem's amount: **120**

Subitem added to item.

1. Add item
2. Remove item
3. Add subitem
4. Remove subitem
5. See tax

Select option: **7**

Select item to remove: **1**

Item removed from bill.

1. Add item
2. Remove item
3. Add subitem
4. Remove subitem
5. See tax
6. Set tax
7. Preview bill
8. Finish

Select option: **4**

0. Knockya cellphone: \$100.00

1. ElVello laptop: \$120.00

Select an item: **1**

4. Remove subitem
5. See tax
6. Set tax
7. Preview bill
8. Finish

Select option: **3**

0. Knockya cellphone: \$45.00
1. ElVello laptop: \$1200.00

Select an item: **0**

Enter subitem's description: **Advanced data plan**

Enter subitem's amount: **85.50**

Subitem added to item.

1. Add item
2. Remove item
3. Add subitem
4. Remove subitem
5. See tax
6. Set tax
7. Preview bill
8. Finish

Select option: 2

0. Knockya cellphone: \$130.50
1. ElVello laptop: \$1200.00

Select item to remove: **2**

Invalid item to remove!

1. Add item
2. Remove item
3. Add subitem
4. Remove subitem
5. See tax
6. Set tax
7. Preview bill
8. Finish

Select option: **4**

0. Knockya cellphone: \$130.50
1. ElVello laptop: \$1200.00

Select an item: **1**

That item has no subitems!

Would you like to create a new bill? (say "no" to terminate) **no**

Shutting off...

Submitting your answer:

Please follow the posted submission guidelines here:

<https://ccse.kennesaw.edu/fye/submissionguidelines.php>

Ensure you submit before the deadline listed on the lab schedule for CSE1322L here:

<https://www.kennesaw.edu/ccse/first-year-experience/cse-1322-lab.php>