

CS 1336 Programming Assignment

Total Points (100 pts)

Assignment #4

Your fourth programming assignment consists of two C++ programs. It should compile correctly and produce the specified output. Give meaningful name to the program and submit it to eLearning.

Please note that the program should comply with the commenting and formatting rules we discussed in class.

Program #1 Club Rebate

50 points

Wholesale clubs like Costco have a rebate(refund) program based on the year purchase total for the customers. Write a program to get the total purchase amount for the year from the user, then compute & output the refund % and the rebate amount, based on the following specifications:

- Customer qualifies for minimum 2% refund once the purchase amount reaches \$1000 for the whole year. Output the following message in case the input amount is less than \$1000:

```
Sorry, minimum $1000 is required to qualify for a refund.
```

- For every additional \$1000 spent by the customer, rebate rate goes up by 0.1%
- However, max refund rate is capped at 4%

Here is a sample input & output (use one fractional digit for refund rate & 2 fractional digits for the refund amount):

Sample Output.

```
Enter the total amount: $ 2123.50
Your refund rate: 2.1%
Your refund amount: $44.59
```

Program #2 Vacation Days**50 points**

All employees, by default, get 2 weeks of vacation per year (that is, 10 vacation days). All employees who have served the company for 3 years get 3 weeks of vacation (that is, 15 vacation days). All employees who have served more than 3 years get 2 additional days for vacation for each additional year up to 6 years. All employee who has served more than 6 years get 1 additional day for each additional year of service. Write the code to accept # of years of service as input and output the # of vacation days. Here are couple of sample inputs & outputs.

Sample Output:

```
Enter # of years of service: 1
# of vacation days: 10
```

Sample Output:

```
Enter # of years of service: 7
# of vacation days: 22
```