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Programmer: Keith Thompson

Program Name: Thompson_MobileServiceProvider.java

Date: October 6, 2018

Purpose:

This program calculates a customer's monthly internet service bill based on one of three potential pricing plans. The customer is asked to enter the package type (A,B or C) and the number of calling minutes used for the month. The program calculates the total charges for the month based on the following rates and displays the results to the screen.

Package A (39.99 per month, 450 minutes, .45 per overage minute)

Package B (59.99 per month, 900 minutes, .40 per overage minute)

Package C (69.99 per month, unlimited minutes)

Met Specifications: (yes)

Program pseudocode:

Constant Declarations(in caps):

PKGA_RATE, PKGB_RATE, PKGC_RATE (double)

PKGA_MINUTES_LIMIT, PKGB_MINUTES_LIMIT (int)

PKGA_MINUTES_RATE, PKGB_MINUTES_RATE (double)

Variable Declarations(in camel):

MinutesUsed, MinutesOver, MinutesOverageCost, TotalCost (double)

Input:

Prompt the user to enter the letter of the package plan they have.

Prompt the user to enter the minutes they consumed for the month

Processing:

If package_MINUTES_LIMIT is greater than MinutesUsed then

(MinutesOver = package_MINUTES_LIMIT - MinutesUsed

MinutesOverageCost = MinutesOver * package_MINUTES_RATE

TotalCost = packageRATE + MinutesOverageCost)

If package entered is C than

(TotalCost = packageRATE)

Output:

Display: "Your total monthly bill is: \$00.00"

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Test Plan:

Mobile Service Provider Test Plan		
Package Plan	Minutes Used	Expected Output
A	305	Your total monthly bill is \$39.99
a	630.45	Your total monthly bill is \$121.19
A	450	Your total monthly bill is \$39.99
a	-450	Your total monthly bill is \$39.99
B	500	Your total monthly bill is \$59.99
b	1200.32	Your total monthly bill is \$180.12
B	900	Your total monthly bill is \$59.99
b	-900	Your total monthly bill is \$59.99
C	-	Your total monthly bill is \$69.99
Plan		Enter a valid letter for your Service Plan
&		Enter a valid letter for your Service Plan
5		Enter a valid letter for your Service Plan