

COSC 1337 – Programming Section

Test 1 Spring 2021

Write a program that will manage the income flow for AllyBaba Apartment complex. AllyBaba owns an apartment complex with 10 units. He rents them with annual leases. The rent is \$2,000 per month.

Conditions of rental agreement

- Assume there are 30 days in a month.
- If the rent is paid on or before the 3rd of the month, there will be no late fees.
- If the rent is paid after the 3rd day of the month, there will be \$5.00 late charge for each day being late after the 3rd.

Example

Enter the month February 2021

Enter the day of the month 2

Calculation for $\rightarrow \text{lateFee} = (10 - 3) * 5$

- No payment will be accepted after 30th day of the month and an eviction notice will be given to the tenant. A final bill will be given to the tenant with an additional \$500 eviction charge.

Example

Enter the month February 2021

Enter the day of the month 35

Calculation for $\rightarrow \text{totalCollection} = 2000 + 500 + (30 - 3) * 5$

The manager will enter the day of the month when rent is paid for each apartment. The program will display a summary of transactions after all 10 units transactions are completed.

The program will display

- Payment Received
 - Number of units paid
 - Number of units paid on-time
 - Number of units paid late
 - Amount collected for late fees
 - Total rent (including late fees) collected
- Eviction Report
 - Number of tenants evicted
 - Total amount for eviction collection

Few suggestions

Syntax:

Logic: If for while

Format all decimal outputs to 2 decimal places

Functions

getDayPaid() -integer (check no negative)

printResults()

calculateMonthlyRate()

plus other functions as need.

COSC 1337 – Programming Section
Test 1 Spring 2021
Sample Run (yellow marked are data entry by users)

AllyBaba Apartment Monthly Rent Transaction

---- Input Section -----

Enter the month February 2021

Unit Number 101

Enter the day of the month 2

Unit number 102

Enter the day of the month 3

Unit number 103

Enter the day of the month 7

Unit number 104

Enter the day of the month 33

Unit number 105

Enter the day of the month 9

Unit number 106

Enter the day of the month 14

Unit number 107

Enter the day of the month 2

Unit number 109

Enter the day of the month 2

Unit number 110

Enter the day of the month 1

Results

--- Rental Transaction for the month of February 2021 -----

 Payment Summary

 Number of units paid

 Number of units paid on-time

 Number of units paid late

 Amount collected for late fees

 Total rent (including late fees) collected

 Eviction Summary

 Number of tenants evicted

 Total amount for eviction collection