



DMIT2008 Assignment 3

Task: Loan Calculator Application Update

Due: Midnight on Friday November 23rd, 2018

Weight: 10%

Overview

You must add some functional updates to the existing Loan Calculator application that you have built alongside your instructor. Drawing on what you have learned over the past several weeks, you will make additions to the codebase that satisfy the new requirements of the application.

Expectations

Download and extract the included application zip starter package. You will find the the interface has been updated slightly (you are not tasked with making any updates to the user interface code), please review the markup to see the updated interface elements. Your updated application must demonstrate the following:

- Additional test for the loan cost function:
 - You must add an additional test (TDD) to the test/loan.test.js file
 - This test must test the functionality of the cost() function of the Loan constructor (to be developed). Think of how to best implement this test in the context of unit testing philosophy (e.g. tests should be able to be run in any order, one test must not depend on any other test, mock/stub any required dependencies, etc.)
 - A comment has been left in this file to indicate where you should write your code
 - Ensure that when the tests are run, this test is failing (i.e. there is no implementation, so it can't pass)
- Add the cost() function to the Loan constructor
 - This function should return the cost of the loan or the interest charged (i.e. the difference between the principal amount and the total amount paid over the term of the loan)
 - Implement this function using what you know of best practices and how previous functions have been applied to this constructor
- You are solely responsible for all parts of this assignment (all JS code)
- **Any other requirements as laid out by your instructor in class**

Delivery

Zip your project folder and submit it to Moodle by the deadline.

- **Do not include the node_modules/ directory in your zip package.**

Seek help if you need it. **Late submissions will not be graded.**

Grading Key

Tasks	Grade	Marks	Total
Testing Test added for the cost() function of the Loan constructor <ul style="list-style-type: none">• Properly implemented as per previous tests• Tests the actual functionality of the intended function		5	5
Design Patterns cost() function properly added to the Loan constructor Function returns the correct loan cost as a number (i.e. unformatted)		5	5
Code Readability and Efficiency <ul style="list-style-type: none">• Efficient and maintainable techniques• Code format• Well documented• Etc.• Utilizes your own written code (i.e. not gathered from online sources such as StackOverflow)		-5	-5

TOTAL MARKS		10
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Marking Rubric

Marks	5 Marks Criteria [minus]
5 [0]	Task was completed with the highest of proficiency, adhering to best practices, and followed subject matter guidelines. The task was completed to a professional standard.
4 [-1]	Task was completed well, with some minor mistakes. Well above average work, shows good understanding of the task, and a high degree of competence.
3 [-2]	Task was completed satisfactorily. Some features are missing or incorrectly implemented. Shows a moderate level of understanding in the task with room for improvement.
2 [-3]	Task completion is below average, the task was poorly completed. Shows understanding of the task and the requirements to implement, but implementation was poorly executed.
1 [-4]	Some of the task was completed. Shows a lack of understanding in the subject matter and very poor execution.
0 [-5]	Not completed.

Marks	3 Marks Criteria [minus]
3 [0]	Task was completed well, adhering to best practices, and followed subject matter guidelines.
2 [-1]	Task was completed satisfactorily. Some features are missing or incorrectly implemented. Shows a moderate level of understanding in the task with room for improvement.
1 [-2]	Some of the task was completed. Shows a lack of understanding in the subject matter and very poor execution.
0 [-3]	Shows a little to no degree of competence in completing the task; not completed.

Marks	1 Marks Criteria
1	Task completed satisfactorily
0	Task was not completed